

**THE POLITICAL ECONOMY OF
AGRARIAN POLICIES IN
KERALA: A STUDY OF STATE
INTERVENTION IN
AGRICULTURAL COMMODITY
MARKETS WITH PARTICULAR
REFERENCE TO DAIRY
MARKETS**

VELAYUDHAN RAJAGOPALAN

Thesis Submitted for the Degree of Ph.D

**Department Of Government
London School Of Economics & Political Science
University Of London**

April 1993

UMI Number: U062852

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



UMI U062852

Published by ProQuest LLC 2014. Copyright in the Dissertation held by the Author.
Microform Edition © ProQuest LLC.

All rights reserved. This work is protected against unauthorized copying under Title 17, United States Code.



ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106-1346

X-21-160796-6

THESES

F
7026

ABSTRACT

This thesis analyzes the nature of State intervention in agricultural commodity markets in the Indian province of Kerala in the period 1960-80. Attributing the lack of dynamism in the agrarian sector to market imperfections, the Government of Kerala has intervened both directly through departmentally run institutions and indirectly through public sector corporations. The failure of both these institutional devices encouraged the government to adopt marketing co-operatives as the preferred instruments of market intervention.

Co-operatives with their decentralised, democratic structures are, in theory, capable of combining autonomous decision-making capacity with accountability to farmer members. The Government of Kerala believed that this institutional mechanism would aggregate the interests of peasants and thereby transform them into powerful market agents.

We, however, argue that the nature of the interest group process, both within the organisation and in the larger polity, significantly, distorts policy outcomes. First, the nature of the intervention - the deployment of massive financial resources, the top-down approach with its commitment to the achievement of quantitative targets and the capital intensity of many of the projects- afford

opportunities to powerful groups such as professional politicians and State bureaucrats to maximise their own interests. Second, groups within the organisation such as farmer-politicians with their proximity to decision-makers and trade unions with their links to political leaders are able to divert an increasing share of the organisation's resources to themselves. In the process, farmers, in whose name these policies are initiated, experience negative consequences.

The above hypothesis is tested by analysing the implementation of Operation Flood- India's dairy development programme. Operation Flood (OF) was launched by the Government of India with the avowed aim of increasing farm incomes through an institutional framework(the Anand Pattern Co-operative of Gujarat) in which farmers would have control over their own resources. This research, however, finds that owing to interest group processes, the programme has produced sub-optimal results in Kerala. Producer prices have remained stagnant, while production costs have soared. Farmers have responded by restricting supplies, which has led to massive shortages in the market. Meanwhile the fiscal foundations of the organisations have been undermined, as powerful groups appropriated an increasing share of the organisations' resources. An intervention intended to optimise benefits for farmers, in fact, resulted in the dominant interest groups within the polity maximising their benefits.

The thesis is based primarily on unpublished material gathered directly from institutions in charge of implementing the programme. The author was associated with the implementation of OF in Kerala during the period 1988-90. I had, therefore, access to confidential materials such as minutes of Board meetings, internal memos, balance sheets and audit reports of OF institutions in Kerala. Moreover, as an officer of the Government of Kerala, I also had access to government documents and files. Documentary evidence was supplemented by interviews with key actors such as V. Ramachandran, the former Chief Secretary of Kerala, Secretaries to the Government of Kerala and officials of the departments of Animal Husbandry, Co-operatives and Dairy Development. A sample survey was also conducted to ascertain the response of farmers to the programme.

TABLE OF CONTENTS

<u>Title</u>	<u>Page</u>
Abstract	2
Acknowledgments	6
Abbreviations	8
List of Tables	11
Introduction	16
The Development Paradox of Kerala	63
Dairy Markets in the Pre-Operation Flood Period .	124
Interest Groups and Operation Flood in Kerala . .	166
Performance of Operation Flood in Kerala	223
The Politics of Milk Pricing	267
Operation Flood as a Role Model	312
Conclusion	360
Appendix I	393
Appendix II	395
Appendix III	403
Appendix IV	407
Bibliography	408

ACKNOWLEDGMENTS

A number of people have contributed to this thesis. I have drawn heavily on the resources of the Kerala Co-operative Milk Marketing Federation (KCMMF), Trivandrum. The staff of KCMMF and its affiliated unions, have extended considerable assistance to me during my field trip in Kerala. I thank them all. While it is invidious to single out any individual, I must put on record my appreciation of the help given by A.Raja, Manager, Computer Cell, KCMMF and his assistants. During the field trip, I interacted with the presidents and board members of a large number of dairy co-operatives. I shall always be grateful for their candid and earthy comments on the implementation of Operation Flood in Kerala. Officials of the Dairy Development and Animal Husbandry Departments, the Bureau of Economics and Statistics, the Coconut Development Corporation, "KERAxFED" and "MATSYAFED" have all extended to me a great deal of assistance.

I wish to thank the officials of the NDDB at Bangalore, Madras and Anand who went out of their way to furnish me with up to date information on the status of OF in India. I also thank Dr: V.Kurien, the Chairman of NDDB and V.Ramachandran, the former Chief Secretary of Kerala, both of whom, granted me interviews at very short notice. My thanks are also due to the officials of the Tamilnadu

Dairy Federation who extended considerable assistance during my trip to Madras in April 1991.

I wish to thank the Governments of India and Kerala for giving me permission and the necessary leave to write this thesis. My thanks also to the London School of Economics, the LSE 1980s' Scholarship Fund and the British Council for funding my studies in London. My thanks are also due to Rosie Gosling for her support and Sanjay Bakshi for his computer wizardry.

My supervisors - Tom Nossiter and John Harriss have been my greatest source of strength. Tom has lavished a great deal of attention and affection on me. His encouragement, warmth and above all confidence in me made this thesis possible. John has been a tower of strength and his belief in me has helped me through many a dark moment.

I do not know how to acknowledge my debt to my wife Geetha. To satisfy my whim of studying in London, she accompanied me here leaving our children in Kerala. Her love, support and belief in me made this thesis possible.

V.RAJAGOPALAN

ABBREVIATIONS

- 1) AI: Artificial Insemination
- 2) AIML: All India Muslim League
- 3) AITUC: All India Trade Union Congress
- 4) APCO: Anand Pattern Co-operative
- 5) CDS: Centre for Development Studies.
Ulloor, Trivandrum.
- 6) CITU: Centre for Indian Trade Unions
- 7) CMS: Calicut Milk Supplies Union
- 8) Congress-I: Congress- Indira
- 9) Congress-S: Congress-Socialist
- 10) Congress-U: Congress-Urs
- 11) CPD: Central Products Dairy
- 12) CPI: Communist Party of India
- 13) CPM: Communist Party of India (Marxist)
- 14) EEC: European Economic Community
- 15) ERCPMU: Ernakulam Regional Milk Producers' Union
- 16) GB: General Body
- 17) IAS: Indian Administrative Service
- 18) IFS: Indian Forest Service
- 19) IPS: Indian Police Service
- 20) ICDP: Integrated Cattle Development Project
- 21) INTUC: Indian National Trade Union Congress
- 22) IUML: Indian Union Muslim League

23) KC:	Kerala Congress
24) KC(J):	Kerala Congress- Joseph Group
25) KC(M):	Kerala Congress- Mani Group
26) KCMMF:	Kerala Co-operative Milk Marketing Federation
27) KDCMPU:	Kheda District Co-operative Milk Producers' Union
28) KERAFED:	Kerala Kera Karshaka Shakarana Federation
29) KFC:	Kerala Fisheries Corporation
30) KLDMMB:	Kerala Livestock Development and Milk Marketing Board
31) KPCC:	Kerala Pradesh Congress Committee
32) LDF:	Left Democratic Front
33) LPD:	Litres per Day
34) MATSYAFED:	Kerala State Co-operative Federation for Fisheries Development
35) MD:	Managing Director
36) MDCMSU:	Malappurum District Co-operative Milk Supplies Union
37) ML:	Muslim League
38) MLA:	Member of the Legislative Assembly
39) MLPA:	Million Litres per Annum
40) MRCMPU:	Malabar Regional Milk Producers' Union
41) NABARD:	National Bank for Agricultural Development

42) NCDC:	National Co-operative Development Corporation
43) NDDB:	National Dairy Development Board
44) NKDP:	North Kerala Dairy Development Project
45) OF:	Operation Flood
46) PDDP:	People's Dairy Development Project
47) PSP:	Praja Socialist Party
48) RBI:	Reserve Bank of India
49) RSP:	Revolutionary Socialist Party
50) SDC:	Swiss Development Corporation
51) SMP:	Skimmed Milk Powder
52) SNF:	Solid Non Fat
53) SSP:	Samyuktha Socialist Party
54) TMS:	Trivandrum Milk Supplies Union
55) TN:	Tamilnadu
56) TRCMPU:	Trivandrum Regional Milk Producers' Union
57) UDF:	United Democratic Front

List of Tables

- 1) Table II.1: Selected Indices of Social Development:Kerala and India. 1951-88.
- 2) Table II.2: Growth Rates of Population, Aggregate and Sectoral Incomes in Kerala:1962-86.
- 3) Table II.3: Comparative Statement of Per Capita Incomes: Kerala and India. 1960-85.
- 4) Table II.4: Average Annual Production of Principal Crops in Kerala. 1961-1990.
- 5) Table II.5: Growth of Employment in the Organised Sector in Kerala. 1970-89.
- 6) Table II.6: Growth Rates in the Tertiary Sector: Kerala. 1980-90.
- 7) Table II.7: Elections and Political Coalitions in Kerala.1960-82.
- 8) Table II.8: Trends in Paddy Production in Kerala: 1960-90.
- 9) Table II.9: Trends in Milk Production in Kerala: 1964-90.
- 10) Table II.10: Area Under Cashew in Kerala: 1980-90.
- 11) Table II.11: Trends in the Price of Natural Rubber in Kerala: 1981-90.
- 12) Table III.1: Market Systems in Trivandrum and Ernakulam. 1975.

13) Table III.2: Growth of Dairy Co-operatives in Kerala: 1961-89.

14) Table III.3: Performance of the Calicut Milk Supply Union: 1941-80.

15) Table III.4: Performance of MDCMSU. 1964-79.

16) Table III.5: Performance of Urban Milk Supply Schemes: 1964-81.

17) Table III.6: Performance of Primary Co-operatives and Milk Supply Unions: 1964-80.

18) Table III.7: Purchase Price of Milk in Trivandrum Dairy: 1967-79.

19) Table IV.1: Physical Targets of OF in Kerala: 1979-85

20) Table IV.2: Summary of Projected and Actual Cost Estimates of OF in Kerala: 1980-91.

21) Table IV.3: Number of Societies Affiliated to District and Regional Unions: 1969-70 & 1993.

22) Table IV.4: Average Monthly Production of Milk and Milk Products- Rural Expenditure as Percentage of Urban Expenditure: 1972-78.

23) Table IV.5: Estimated Demand for Milk in Kerala: 1964-65 & 1977-78.

24) Table IV.6: Abstract of Plan and Non-Plan Expenditure of the Dairy Development Department: 1983-90.

25) Table IV.7: Comparative Statement of Pay Scales in Pre-OF and OF Institutions.

26) Table V.1: Comparative Statement of Total Milk Production and Milk Marketed by KCMMF: 1980-90.

27) Table V.2: Average Daily Procurement and Sales of KCMMF: 1984-91.

28) Table V.3: Percentage Change in Local Sales of Selected Societies: 1990-91.

29) Table V.4: Percentage of Milk Supplied to Dairies as Percentage of Total Procurement: 1986-91.

30) Table V.5: Price of Milk and Milk Substitutes: 1985-90.

31) Table V.6: Procurement of Milk by OF and non OF Institutions in Kerala: 1986-91.

32) Table V.7: Procurement of MDCMSU Before and After its Conversion : 1988-91.

33) Table V.8: Average Procurement of Milk by OF Institutions in India: 1988-91.

34) Table V.9: Average Daily Procurement by APCOS in Kerala: 1982-91.

35) Table V.10: Profit and Loss Account of OF Institutions in Kerala: 1985-91.

36) Table V.11: Price Realised From Alternative Marketing Outlets: 1990-91.

37) Table V.12: Price of Cattle Feed in Kerala: March.1991.

38) Table V.13: Growth in the Emoluments of Staff: 1986-91.

39) Table V.14: Profit and Loss Statement of Non OF Institutions in Kerala: 1980-89.

40) Table VI.1: Index Numbers of Parity Between Prices Paid and Received by Farmers in Kerala: 1980-90.

41) Table VI.2: Index of Prices Paid and Received by Dairy Farmers in Kerala: 1980-90.

42) Table VI.3: Prices Offered by OF Institutions at Constant Prices: 1980-90.

43) Table VI.4: Production Costs in the Dairy Industry in Kerala: 1989-91.

44) Table VI.5: Average Procurement Price of Milk in Selected States of India: 1981-91.

45) Table VI.6: Analysis of Urban Expenditure Patterns in Kerala: 1986-87.

46) Table VI.7: Personal Background of Primary Society Presidents in Kerala.

47) Table VI.8: Participation Rates in General Body Meetings of Sample Societies: Members Present as a Percentage of Total Membership: 1987-91.

48) Table VI.9: Comparative Analysis of Milk Despatched to Dairy and Feed Received in Key and Ordinary Societies.1989.

49) Table VII.1: Achievements and Targets of OF II and OF III in India: 1980-95.

50) Table VII.2: Region Wise Production and Procurement Trends in India : 1981-82 & 1989-90.

51) Table VII.3: Average Producer Price in Various Regions in India.

52) Table VII.4: Prices Paid by Selected Market Agents.

53) Table VII.5: Net Revenue From Dairying in Various Regions.

INTRODUCTION

A central issue in current debates over development policy in India, is the role of the State which has intervened massively in the Indian economy with disputed consequences. The share of the public sector in Gross Domestic Product (GDP), increased from only 7.5% in 1950-51 to 23.5% in 1986-87 (at 1970-71 prices).¹ Public sector institutions dominate the organised sector both nationally and in the provinces. In 1987, 71% of the total workforce in the organised sector was employed by the government (both federal and state governments) and 77.5% of the paid up capital in the corporate sector was invested by government companies.² Further, through the ownership of all the major banks and insurance companies, the government is also able to exercise considerable influence over the private corporate sector.

Social scientists have advanced a variety of arguments to explain the rationale of this intervention.

¹ Agrawal A.N , Varma H.O and Gupta R.C : "India: Economic Information Book: 1989-90." New Delhi: National Publishing House. 1989.

² The relative importance of the public sector has been increasing over time. In 1971 only 62% of the workforce in the organised sector was employed by the government. *ibid.*

The dominance of the public sector can also be seen from the fact that in the mid eighties only two out of the top twenty five industrial firms in India was in the private sector. See Rudolph L.I and Rudolph S.H : "In Pursuit of Lakshmi: The Political Economy of the Indian State". Bombay: Orient Longman. 1987.

Nehru's intellectual fascination with Fabian socialism and Soviet Planning is well known.³ He believed that India's problems of poverty and inequality could be resolved only through the State dominating significant sections of the economy. Development economists in India and abroad argued that State intervention was required to remove the constraints that perpetuated "structural backwardness" in the Indian economy.⁴ Highly unequal social and economic structures, low levels of capital formation and inadequate infrastructure were serious constraints requiring State intervention.⁵

The development experience of India during the last four decades does not validate this early optimism in the efficacy of State intervention. True, India produces enough food grains⁶ to feed its huge population⁷ and the

³ See Nayar B.R : "India's Mixed Economy: The Role of Ideology and Interest in its Development". London: Sangam Books. 1989.

⁴ Chakravarty S observes that in the fifties, there was a great deal of interaction between Indian planners and a number of Western development economists, most of whom supported the government's interventionist policy. See Chakravarty S : "Development Planning: The Indian Experience". Delhi: OUP. 1987.

⁵ ibid.

⁶ The production of food grains increased from only 50.8 million in 1950-51 to 165 million tonnes in 1991-92. The figures for 1950-51 are derived from Agrawal et al (1989) op cit, while the latter figures have been obtained from India Today, February 15, 1993.

⁷ The 1991 census puts the Indian population at 843.93 million. See: Census of India 1991 - Provisional Population Totals. Director of Census Operations: Kerala. Government of India. Trivandrum. 1991.

country has built a broad-based and diversified industrial structure. However, protected behind high tariff walls, the industrial structure is high-cost and uncompetitive by world standards.⁸ Agricultural policies, while increasing food production, have not succeeded in significantly reducing absolute poverty levels.⁹ Currently, in the early 1990's, the Indian economy is passing through a very difficult phase. Faced with persistent balance of payment problems, India has been forced to implement a Structural Adjustment Programme sponsored by the International Monetary Fund.¹⁰

⁸ See Bhagwati J.N and Desai P : "India : Planning for Industrialisation: Industrialisation and Trade Policies Since 1951". London: Oxford University Press. 1970 and Bhagwati J.N and Srinivasan T. N "Foreign Trade Regimes and Economic Development : India ". New York: Columbia University Press. 1975

⁹ Agriculture growth in India and its impact on poverty levels have been extensively debated. Ahluwalia.M argues that agriculture growth since the late sixties has reduced the incidence of rural poverty. See Ahluwalia M "Rural Poverty and Agricultural Performance in India". Journal of Development Studies. Vol :XIV No: 3. 1978. For a critique of this argument see Kohli A : The State and Poverty in India: The Politics of Reform. Appendix II. Bombay : Orient Longman. 1987.

¹⁰ In the last two years, the Government of India has initiated a series of measures to open up the economy. Many of the restrictive licensing procedures have been abolished and trade policies have been liberalised. In this year's budget (1993), the Rupee has been made convertible, the maximum customs duty has been cut from 110% to 80% and tax rates have been reduced to attract foreign capital. The government has made a cautious beginning to reduce its direct involvement in industry by the public sale of shares in Government companies. The Government has also made it clear, that in future, unprofitable companies will not be rescued through budgetary support. See :"Harvesting India's Reforms".

The Economist. March 6th-12th, 1993.

The reforms are however still largely restricted to the Government of India. The governments of the various states have yet to initiate any meaningful reform programme.

Why has State intervention in the Indian economy produced sub optimal results ?. Many economists attribute the comparatively poor performance of the economy to the rent-seeking behaviour of elected officials and the bureaucracy.¹¹ In this view, State intervention leads to inefficiencies, because they create space for rent, the enjoyment of which is dependent on access to State power. The incentive system, consequently, is biased not towards productive activities, but towards the unproductive search for political favour. The large regulatory role of the Indian State, argues Wade, predisposes the administrative and political system in India to high levels of corruption.¹² Endemic corruption, in his view, accounts for the Indian State's poor record in promoting development.

Economic stagnation has also been attributed to the rise of various classes. In P.S Jha's thesis, a dominant "intermediate class or stratum consisting of market oriented peasant proprietors, small manufacturers, traders and other self employed groups" have benefited most from government controls over economic activity.¹³ They

¹¹ Bhagwati J.N and Desai P (1970) op cit and Bhagwati J.N and Srinivasan T.N (1975). op cit.

¹² See Wade R :" The Market for Public Office: Why the Indian State is not Better at Development". World Development. Vol: XIII. No: 4. 1985.

¹³ See Jha P.S: India : A Political Economy of Stagnation. Bombay : OUP. 1980. P: Preface, VII. Nayar B.R, also traces the expansion of the public sector to the influence of the intermediate classes. See Nayar B.R(1989) op cit.

The concept of the intermediate classes capturing State power in developing countries was first formulated by the Polish economist Michael Kalecki. K.N Raj, without applying the concept to the Indian situation popularised it in India in an article in

have, therefore, a vested interest in perpetuating the existing inefficient system. In A. Rudra's formulation, "the ruling class" consists of "big industrialists", "the class of big landowners" and the "intelligentsia".¹⁴ In his view, industrial policies have served mainly to increase the wealth of the industrial capitalists, while the benefits of agrarian policies have been captured by rich farmers. In Marxian analysis of the Indian economy, therefore, State intervention is unlikely to produce optimum results, until social institutions are fundamentally transformed.¹⁵

These differing perceptions of the results of State intervention brings us back to our initial question. What accounts for the State's continued, massive intervention in the economy ?. Is it a product of the ideological commitment of the Indian elites to socialism ?. Is State intervention merely a method for the ruling classes to appropriate more of society's resources ?; or

the Economic and Political Weekly in 1973.

See Kalecki M : Selected Essays on the Economic Growth of the Socialist and the Mixed Economy. London: Cambridge University Press. 1972. and Raj K.N :" The Politics and Economics of Intermediate Regimes". Economic and Political Weekly. Vol: VIII. No:27. 1973.

¹⁴ Rudra includes a wide variety of groups under the category of intelligentsia. They include: all white collar workers in the organised private sector; all office workers in administrative services from top bureaucrats to clerks; teachers, doctors, writers and other professionals; all skilled workers engaged in the entertainment and advertisement business; politicians and trade union leaders. See Rudra A :" Emergence of the Intelligentsia as a Ruling Class in India." Economic and Political Weekly. Vol: XXIV No: 3. 1989.

¹⁵ See: Prasad P.H : Lopsided Growth: Political Economy of Indian Development. Bombay : OUP. 1989.

are State functionaries autonomous agents motivated to expand the State sector by considerations of self interest only ?.

Explanations of the behaviour of State elites(by State elites we mean elected political leaders such as ministers and the members of the Indian parliament and the various state legislatures, the leaders of the various political parties and the top bureaucrats) need not necessarily be mutually exclusive. While Marxian analysis of State policies have a tendency towards "economic reductionism", their emphasis on social and economic processes as determinants of political behaviour is legitimate. Similarly, State elites may be motivated by both self-interest and by what R Miliband calls the "conception of the national interest".¹⁶ He observes that just as it is wrong to affirm that those in power have no motives other than maintaining themselves in power, it is equally naive to believe that State elites are not moved by self-interest. He concludes, therefore, that " Self-interest and a conception of the national interest have been and are powerful influences in shaping the policies and actions of people in control of State power".¹⁷

Our attempt here is to explore the nature of State intervention in agricultural markets in the South Indian province of Kerala. Essentially, the thesis asks "

¹⁶ Miliband R : " State Power and Class Interests". New Left Review. No: 138. March- April.1983.

¹⁷ ibid. P:64

how and why government interventions in agricultural markets have become so pervasive, why do they assume the form they do and with what results and consequences ".¹⁸ Through an analysis of the dynamic interplay between the State and the institutions it creates to promote development, we hope to provide an explanation for the indifferent performance of so many State sponsored agrarian programmes in India.

The thesis analyzes the efforts made by the Government of Kerala to promote agricultural development through marketing co-operatives. The development experience of Kerala has often been cited as a model for developing countries.¹⁹ Despite low levels of per capita income, the majority of the population has access to basic needs such as primary education, health care and food security. Less well known is the comparative failure of successive governments to stimulate the commodity producing sectors of the economy. This thesis, through a detailed examination of one commodity, milk, offers an explanation for this failure. It argues that the interest group process in the polity biases resource allocation towards dominant groups that have access to State power and away from peasants.

¹⁸ See Doornbos M and Nair K.N ed : Resources, Institutions and Strategies: Operation Flood and Indian Dairying. Indo-Dutch Studies on Development Alternatives -4. New Delhi: Sage Publications.1990. P: 10.

¹⁹ See Franke R W and Chasin B H : Kerala: Radical Reform as Development in an Indian State . The Institute for Food and Development Policy. (Food First Development Report ; No: 6) San Francisco: 1989; and Jeffrey R : Politics, Women and Well-Being: How Kerala Became 'a Model' . Basingstoke: Macmillan. 1992.

Consequently, even programmes such as Operation Flood, which are designed to aggregate their interests, produce sub optimal results. This argument is illustrated through an examination of Operation Flood, the national dairy development programme.

Operation Flood (OF) is an ambitious programme of the Government of India, to optimise the interests of dairy farmers through an integrated, co-operative, procurement, processing and marketing system (See below). In its first phase, OF-I (1970-77), the programme covered only ten states and aimed at linking dairy co-operatives in these states with the markets in the four major cities-Bombay, Calcutta, Delhi and Madras.²⁰ OF-II (1978-86) extended the programme to nearly all the states and union territories. The main thrust of OF-III (1987-94) is to consolidate the gains already made by the previous phases of the programme.²¹ The National Dairy Development Board (NDDB) oversees the implementation of the programme and it is financed mainly by commodity aid and loans provided by the World Food Programme, the EEC and the World Bank.

OF aimed to stimulate milk production and increase farm incomes through the creation of an

²⁰ The ten states are: Punjab, Haryana, Rajasthan, Uttar Pradesh, Bihar, West Bengal, Tamilnadu, Andhra Pradesh, Maharashtra and Gujarat. See : "Report of the Evaluation Committee on Operation Flood-II ". Ministry of Agriculture. Government of India. New Delhi. 1985.

²¹ See : "India: Second National Dairy Project". Staff Appraisal Report. No: 6897 IN. World Bank. Washington. 1987.

institutional framework, in which farmers could maximize their interests. The inability of small farmers to organise themselves for collective action was diagnosed by the Government of India, as the major institutional constraint in promoting agricultural development.²² Marketing co-operatives, on the lines of the successful milk co-operatives of Gujarat, offered an attractive institutional format for promoting the interests of the unorganised peasantry. OF was, therefore, launched by the Government of India with the avowed objective of replicating the Gujarat model all over India.

The Model

OF is consciously modelled on the organisational pattern of the dairy co-operatives of the Kheda district of Gujarat. Beginning as a small rural co-operative, the Kheda District Co-operative Milk Producers' Union (KDCMPU, better known as "Amul") developed spectacularly over the last forty years to become the premier dairy co-operative in India.²³ Its success contributed to the popularity of what is known as the "Anand Pattern Co-operative" (APCO) ,

²² See : " Report of the National Commission on Agriculture". Ministry of Agriculture. Government of India. New Delhi.1976.

²³ R.C Mascarenhas points out that what began as a small primary society in 1946, collecting about 200 LPD, had by the mid eighties, become a huge organisation with 800 affiliated societies, collecting on an average 800,000 LPD. Its sales turnover had increased from Rs 7. 43 million in 1955-56 to Rs 1000.48 million in 1983-84. See: Mascarenhas R.C: A Strategy for Rural Development : Dairy Co-operatives in India. New Delhi: Sage Publications. 1988.

(The name "Anand" is derived from the town Anand in which "Amul" is located). The "Anand Pattern" consists of a three tiered co-operative structure: primary co-operatives procuring milk at the village level are integrated with processing and marketing co-operatives at the district level. The district co-operatives are federated to an apex co-operative at the provincial level. The latter coordinates policy and looks after inter province trade.

In Gujarat, the model is claimed to have overcome many of the problems associated with rural development programmes. U Lele points out that to prevent co-operative institutions from being captured by local elites, it is necessary for the organisers to exercise a degree of paternalism. Such paternalism is, however, incompatible with the requirement of grass roots participation, so essential for any successful co-operative effort.²⁴ The APCO system has successfully overcome this dilemma,-the "decentralization-equity dilemma"- as Lele characterises it,²⁵ by ensuring that while farmers are the owners of the enterprise, the actual management of the organisation is in the hands of technically qualified managers.

It is this system that the Government of India sought to replicate all over India. During the eighties, Operation Flood and programmes modelled on it became the preferred instrument of State intervention in many

²⁴ See Lele U : " Co-operatives and the Poor: A Comparative Perspective". World Development. Vol: IX. No: 1. 1981.

²⁵ ibid.

agricultural markets in India. The programme has generated a great deal of controversy in India. While the NDDB and the multilateral financing institutions have claimed the programme to be a success,²⁶ a number of social scientists have been highly critical of the programme.²⁷ Critics of the programme identify design flaws as factors primarily responsible for the programme's indifferent performance. In this thesis, however, an attempt is made to show that while design flaws are a contributory factor, the role of the State has been decisive in determining programme outcomes.

The Debate Over Operation Flood

Operation Flood has been extensively debated in India. The passions unleashed by the debate have often pushed the rival protagonists to rigid, inflexible positions.²⁸ The debate over the efficacy of the APCO model, as an appropriate development tool for India, covers a wide variety of issues. These include, the

²⁶ See Kurien V: "Opposition to Change: The Anand Pattern. A Case Study." (Pamphlet). Indo-Canadian Institute. New Delhi. 1988; and Staff Appraisal Report. World Bank. 1987. op cit.

²⁷ Among others, Alvares C. 1985, George S. 1985, Doornbos M. 1990 and Nair K.N. 1990.

²⁸ George S. "cannot find one single policy decision taken by Operation Flood to be valid and justifiable". See George S Operation Flood. An Appraisal of Current Indian Dairy Policy. Delhi: OUP. 1985. Page:275.

The NDDB on the other hand does not entertain even the mildest criticism of Operation Flood. For a critique of NDDB's reaction to the attempts made by social scientists to evaluate OF, See Baviskar B.S. and George S: "Development and Controversy: The National Dairy Development Board". Economic and Political Weekly. Review of Agriculture. Vol: XXIII No: 13. 1988.

appropriateness of a Western model of dairy development for India, OF's claim to poverty alleviation, the bureaucratic structure of NDDB and its relations with external institutions, the supremacy of the technocracy in OF institutions and the consequent marginalisation of farmer's representatives and above all the replaceability of the "Anand Pattern" in different socio-economic environments. Only the more salient issues raised in the debates are discussed here.

A major objective of OF is to increase milk production in the country through the creation of a National Milch Herd of cross-bred cows and upgraded buffaloes.²⁹ However, the programme to increase the cross-bred cattle population has been criticised on the ground that farmers in India do not maintain cattle exclusively for milk production. S. George argues that the progeny of cross bred cattle have lesser draught power capability.³⁰ Consequently, a programme that relies exclusively on cross-breeding to increase milk production in the country will break the symbiotic relationship between crop and animal husbandry. K.N Nair argues that the success of the cross-breeding programme in Kerala was due to factors unique to the state, such as the food habits of Keralites and shifts

²⁹ A specific objective of OF-II was to "enable the milk producers to rear a National Milch Herd of some 15 million cross-bred cows and upgraded buffaloes by mid-1985." See: "Report of the Evaluation Committee on Operation Flood-II". 1985. op cit.

³⁰ See George S. : 1985. op cit.

in the cropping pattern.³¹ These cannot be easily replicated in other regions. However, as A.C Dhas's study of Tamilnadu shows, changes in the agrarian economy such as shifts in the cropping pattern, fragmentation of holdings and mechanisation of agricultural operations are reducing the farmer's incentive for holding draught animals in other states also.³² Both Nair's analysis of the Kerala situation and Dhas's study of Tamilnadu indicate that, while governments have been active in making the technology available, it is market forces, rather than the Government, that are dictating the pace at which farmers are switching from draught animals to milch animals.³³

³¹ The unique factors included shifts in the cropping pattern from paddy to non cereal crops which increased the attractiveness of holding milch stock as against work animals and the food habits of Keralites, who generally are not averse to consuming beef. The latter greatly facilitates cross-breeding as there is a market for low or unproductive milch stock. See Nair K. N. " Technological Change in Milk Production: A Review of Some Critical Issues in Milk Production with Reference to South Asia." Economic and Political Weekly. Review of Agriculture.

Vol: XVII.No: 13. 1982.

³² Dhas. A. C. "Structure of Milk Production in Tamilnadu: An Analysis of Trends and Sources of Growth" in Doornbos M and Nair K.N. 1990. op cit.

³³ One of the most powerfully articulated criticism of OF is that it attempts to impose one model-the Anand pattern and one technology- the cross - breeding technology, on the entire country. This, argues George, is a reflection of the centralising nature of dairy policy under OF and as such, it constitutes an unhealthy approach to development in a country as diverse as India. But George's remedial measures give more arbitrary powers to the State.

Proceeding from a legitimate argument that dairy policy should reflect local agro-economic conditions, she goes on to argue that " within each region, distinctions should be made as to the milch stock appropriate for each agrarian class, since any milch animal that a landless labourer can maintain will differ from those feasible for a small holder and again from those

Second, there is a consensus among most analysts of OF that the limits to the programme would be set by the availability of feed and fodder in the country. Surendar Singh argues that the paucity of feed and fodder would act as a ~~break~~ on the success of OF.³⁴ K.N Nair argues that following the Green Revolution, the availability of bovine feed has been increasing rapidly in recent years. However, since cross-bred cattle require more feed and fodder, the rapid expansion of the cross-bred population under OF is likely to put pressure on feed resources.³⁵

In fact, very little hard data exists to indicate whether OF has adversely affected the availability of feed and fodder resources in the country. However, our studies in Kerala will indicate that towards the second half of the eighties, feed prices have been increasing at a faster rate than milk prices. A series of "quick studies" initiated by the NDDB in 1990-91, also indicate that in various parts of the country, feed prices are rising faster

suited to medium or large cultivators". George. S.: "Operation Flood and Centralised Dairy Development in India", in Doornbos M and Nair K.N. 1990. op cit. page : 79.

This suggestion would be to vest bureaucrats with the authority to decide what type of animal should be kept by different classes of farmers. This is far more centralising than anything suggested by the NDDB.

³⁴ Singh S :" Operation Flood II: Some Constraints and Implications". Economic and Political Weekly. Vol: XIV. No: 42 & 43. 1979.

³⁵ Nair K.N. "White Revolution in India: Some Facts and Issues". Economic and Political Weekly. Review of Agriculture, Vol: XX. No: 25 & 26. 1985.

han milk prices.³⁶ The rapid growth of the cross-breeding programme,³⁷ the increasing commercialisation of the dairy economy³⁸ and the spurt in the export of feed from India (while India exported only 164,000 tonnes of oil cake to the EEC in 1969, exports in 1982, totalled 920,000),³⁹ are all likely to exacerbate the situation in the future.

One of the most controversial and widely debated aspects of OF is commodity aid. Part of the resources for OF is generated by the sale in India of donated commodities. It was envisaged that 49% of the total outlay

³⁶ See: 1) "A Rapid Study on Declining Milk Procurement in Bulandshher Union"; 2) "A Rapid Survey on Declining Milk Procurement in the South" and 3) "A Quick Survey of Declining Milk Procurement in Madhya Pradesh". NDDB, Anand. 1991.

³⁷ Between 1984-85 and 1987, the cross-bred population in India is estimated to have increased from about 5 million to about 12 million. On an average about 3.4 million artificial inseminations(AI) with exotic semen are performed around the country. See Nair K.N and Dhas A.C: "Cattle Breeding Technology and Draught Power Availability: An Unresolved Contradiction", in Doornbos M and Nair K.N. 1990. op cit.

While the success rate of AI, obviously varies from state to state, the sheer volume of the effort would result in a significant addition to the cross-bred population every year. Since cross-bred cattle are more resource demanding, the demand for feed and fodder is bound to escalate rapidly with the growth of the cross-bred population.

³⁸ OF has contributed significantly to the commercialisation of the dairy economy. Estimates show that 65% of the milk produced in OF areas is traded. See "Base Line Study of Operation Flood 1988-89". National Council of Applied Economic Research, New Delhi. 1990

As OF expands its coverage, the process of commercialisation is bound to increase, putting upward pressure in the demand for and price of feed and fodder.

³⁹ See Doornbos et al: Dairy Aid and Development. India's Operation Flood. Indo-Dutch Studies on Development Alternatives-3. New Delhi: Sage Publications. 1990.

In the context of the current crisis in India's Balance of Payments, and the consequent encouragement given to exports, we can anticipate an increasing quantity of oil cake, rice bran and other feed stuffs finding their way to export markets.

for OF II would be raised by the recombination and sale of 186,000 tonnes of skimmed milk powder(SMP) and 76,000 tonnes of butter oil, supplied by the EEC to the Indian Dairy Corporation.⁴⁰ As part funding for OF III, the EEC proposed to allocate 75,000 tonnes of SMP and 25,000 tonnes of butter oil.⁴¹

Critics have argued that this funding pattern increased India's dependence on the West.⁴² Donated powder "artificially" expands the market for milk. OF institutions quickly secure a dominant share of the urban market by recombining donated commodities. This strategy is based on the premise that once markets are assured, farmers can be encouraged to produce milk. The market can then be gradually weaned from imported powder.

The obvious danger of this strategy is that the availability of cheap milk powder discourages local production. When there are shortages in the market, rational dairy managers are more likely to clamour for more cheap powder from abroad, rather than raise prices to stimulate increased supply from local sources. This will lead to stagnant local milk prices. According to one Western estimate, imported milk products have depressed the

⁴⁰ *ibid.*

⁴¹ See Baviskar.S and Terhal.P :"Internal Constraints and External Dependence: The EEC and Operation Flood", in Doornbos. M. and Nair.K.N. 1990. op cit.

⁴² George S. 1985 and Doornbos M. et al. 1990

domestic price by 10%.⁴³ It is further argued that since markets have expanded so fast, to maintain supplies, India would have to be continually dependent on external markets.⁴⁴

There is, however, little firm evidence to substantiate the claim that OF has increased India's dependence on imported milk products. The NDDB argues that the volume of imported milk powder, which averaged about 37,000 tonnes per annum during 1960- 1970, had dropped to about 28,000 tonnes during the period 1970-1988. Moreover, the throughput of the dairy industry had risen from 132,000 tonnes per annum to 654,000 tonnes between 1970 and 1988.⁴⁵ The Jha Committee also found that, as a percentage of the throughput of the dairy industry, the use of imported powder has fallen from nearly 40% in the mid sixties to less than 8% in the mid eighties.⁴⁶

The differential distributional impact of OF is another issue which has evoked a great deal of debate. OF-I had been presented, not only as a programme to increase

⁴³ See Lipton.M.: "Operation Flood and Other EEC Aid to India". in Caliewaert (ed) :" India and the EEC". Quoted in Liana Gertsch: "The National Dairy Development Board of India and Corporatism: The Politics of Public Policy Making". Working Paper. Series No: 71. Institute of Social Studies. The Hague.1990.

⁴⁴ George. S. 1985. op cit.

⁴⁵ See Bardhan. P: "Operation Flood. Its Evolution, the Strategy Followed and Progress Achieved". Unpublished paper. NDDB. Anand. No date.

⁴⁶ See " Report of the Evaluation Committee on Operation Flood II". 1985. op cit.

urban milk supplies, but also as a poverty alleviation programme. The Terminal Evaluation report on OF-I, claimed that OF is a powerful developmental tool which has proved that it can make a dent in rural poverty.⁴⁷

This claim of poverty alleviation has been subjected to a great deal of critical scrutiny. OF has certainly enabled individual dairy farmers in Gujarat to gain better remuneration for their produce.⁴⁸ But, even V

Kurien, the Chairman of NDDB, was keen to emphasise that "Operation Flood is not an all purpose poverty removal programme--- (It) is not an all purpose development programme aimed at removing economic and social inequalities existing in rural India for centuries at one stroke".⁴⁹ This realisation of the limited efficacy of OF in transforming rural power relations is reflected in the de-emphasis of the poverty alleviation aspect in the subsequent phases of the programme. Neither OF-II nor OF-III, raises any claim to poverty alleviation. They merely emphasise that the programme will help dairy farmers to build a viable self-sustaining dairy industry.

⁴⁷ World Food Programme Terminal Evaluation Report on project India 618---- (Operation Flood I), FAO, Rome.1981. Quoted in "Report of the Evaluation Committee on Operation Flood II". 1985. op cit.

⁴⁸ Even critics of Operation Flood admit that "Amul" has had a positive impact on the dairy farmers of Gujarat. Baviskar B.S writes :" The dairy co-operatives in Sanjaya and Amul have brought many benefits to the milk producers in the village. They provide a guaranteed market at a fixed price, supply cattle feed at a reasonable price and promote a regular and efficient veterinary service at the village itself. No private or government enterprise will provide all these services with equal efficiency at such a low cost to the producer". See Baviskar. B.S. "Dairy Co-operatives and Rural Development in Gujarat", in Doornbos M and Nair K.N. 1990. op cit.

⁴⁹Kurien V: "From a drop to a Flood".1987.Quoted by Verhagen M : " Operation Flood and Rural Poor" in Doornbos M and Nair K.N. 1990. op cit. P: 253.

This takes us to the question whether the context and the environment in which these programmes are planned and implemented have any implications for their eventual success or failure. In short, can the Anand pattern, which evolved in Gujarat in a particular socio-historical context, be replicated in such a diverse country as India? The replicability of the model is at the heart of the debate over OF.

Critics contend that the model cannot be replicated effectively for a number of reasons.⁵⁰ First, Amul, the role model for OF, evolved in the Kheda district, which historically is one of the most productive milch tracts in the country. This area was already the centre of a prosperous and well established dairy industry by the time Amul came to be established in the late forties. It is therefore argued that the " organisational model has been the result of the growth of milk production in Kheda district and not vice versa as the myth suggests".⁵¹ It follows, therefore, that in regions which are less well endowed, this model may prove unviable.

Second, the proximity of Bombay, with its huge urban market, was a major factor in the success of Amul. The Bombay milk supply scheme was dependent on Kheda district for a major part of its supplies. Supplies were initially

⁵⁰ Among others, George S. 1983 and 1985, Attwood D.M. and Baviskar B.S. 1988, Doornbos M. et al. 1990 and Doornbos M. and Nair K.N. 1990.

⁵¹ Patel S. "The Anand Pattern: A Socio- Historical Analysis of its Origin and Growth" in Doornbos.M and Nair K.N. 1990. op cit. P: 54.

organised through a private dairy. But the involvement of political heavy-weights such as Sardar Patel and Morarji Desai, considerably enhanced Amul's bargaining power. In 1952, Amul was given the monopoly right to distribute milk in Bombay city.⁵² These favourable market conditions, argues S. George, gave Amul a stability which is seldom available to dairy organisations.⁵³ Since such favourable market situations cannot be easily replicated, any strategy based on the success of Amul, could run into severe problems.

The critics of Operation Flood have thus attributed the success of Amul to exogenous factors such as its location in a productive milch tract, its proximity to the Bombay market and the involvement of powerful national leaders who could channel vast quantities of resources to Amul. This would imply that the model by itself has little relevance to the outcome of the programme.

Exponents and admirers of OF, however, identify institutional factors as primarily responsible for the success of Amul. V.Kurien attributes the success of Amul to its farmer owned technocrat managed institutional structure.⁵⁴ R.C.Mascrenhas argues that it is the inspired leadership of Tribhuvandas Patel, a former Chairman of "Amul", and V.Kurien, working in tandem with committed

⁵² ibid.

⁵³ George S. " Co-operatives and Indian Dairy Policy: More Anand than Pattern", in Attwood D.W. and Baviskar B.S. Who Shares? Co-operatives and Rural Development. Delhi: OUP. 1988.

⁵⁴ Kurien V : "Opposition to Change. The Anand Pattern: A Case Study". 1988. op cit.

professionals that contributed to the success of Amul.⁵⁵ A.H.Somjee attributes the success of Amul to the willingness of its political leadership to give operational autonomy to its professional managers.⁵⁶ The World Bank claims that key institutional features such as democratic control, professional management and autonomy in decision making have enabled Amul to function as a successful business enterprise.⁵⁷

The identification of institutional factors as the critical determinants of Amul's success implies that the model could be abstracted from its native environment and successfully replicated elsewhere. Operation Flood was therefore launched by the Government of India to replicate the success of Amul all over India.

Objectives of the Study

The brief summary of the debates over OF indicates that critical attention has been focused almost exclusively on Amul and the role of NDDB in replicating this model. However, in India, dairy development is within the purview of state governments.⁵⁸ The Government of India

⁵⁵ Mascarenhas R C. 1988. op cit.

⁵⁶ Somjee A.H." The Techno-Managerial and Politico-Managerial Classes in a Milk Co-operative of India ". Journal of Asian and African Studies. XVIII,1-2. 1982.

⁵⁷ Staff Appraisal Report. World Bank. 1987. op cit.

⁵⁸ In India's federal system, the federal and state governments have jurisdiction over different subjects. Agriculture and dairy are state subjects. In these subjects, while the Government of India can recommend and suggest programmes, state governments have the real control and responsibility over

and the NDDB have neither the authority nor the personnel to mount a programme of the magnitude of OF without the active collaboration of the state governments.

OF is, in fact, a joint venture of the NDDB and the governments of the various provinces. Before a project under OF is introduced into a province, the NDDB does the initial planning and the detailed project preparation. It also provides the necessary financial resources. The NDDB is also actively involved in the project implementation phase. Its technical experts supervise the construction of dairies and cattle feed plants and provide support for marketing activities. The State provides the legal framework within which OF institutions function and helps in the organisation of co-operatives. It also provides at no cost, land and infrastructure facilities such as assured water supply and electricity at site. It also guarantees the loans made to OF institutions by the NDDB. The government also has the power to appoint the first board of OF institutions at the apex federation and district union levels. Even when elected boards replace the nominated boards, the government continues to exercise considerable influence through its nominees on the board.

The role of the State and its interaction with the organisations it creates to implement the programme, is thus crucial to its success or failure. But in the debates over OF, this aspect is relatively under emphasised. This is surprising, given that, in many development programmes,

them.

it is in the implementation stage that the sharpest conflicts occur. Grindle points out that in many developing countries, pressure groups are most active in the implementation phase of a project, rather than in its policy formulation stage.⁵⁹ Policy is usually formulated in close elite groups, to which demand groups may not have adequate access. Consequently, the process of implementation becomes the focus of intense competition between different groups.

In most development programmes, there are several actors who have goals, which may be in conflict. Conflict resolution occurs either by compromise and bargains struck between competing groups or by one dominant group imposing its priorities over all other groups. In this process, the direction and content of the programme may be profoundly altered. It is thus important to analyze not merely the bundle of policies that make up a programme, but the actual exchanges between the participants in the process of its implementation.

An attempt in this direction is made in this thesis. We will show that in the process of implementing OF in Kerala, its goals have been fundamentally altered. From a programme designed to benefit small peasants through the aggregation of their interests in a co-operative, OF has been transformed into a mechanism for aggregating the political and economic interests of the dominant groups in

⁵⁹ See Grindle M.S ed : Politics and Policy Implementation in the Third World. Princeton: Princeton University Press.1980.

the polity. These groups which include professional politicians, the bureaucracy and trade unions dominate the decision making process both within the OF organisations in Kerala and in the larger polity.⁶⁰

Our study indicates that OF institutions in Kerala are organisations incapable of autonomous choice. They are, in fact, creatures of the State. Consequently, the success or failure of the programme is crucially dependent on the choices made by State elites and these are determined by the interest group process within the polity. These choices are inimical to the programme's stated objectives. State control over crucial organisational processes such as pricing, staffing and investment decisions erode the organisation's capacity to function as an effective market agent. Equally significant, is the endogenous interest group process within the organisation which weakens its capacity to combat the State. By focusing on the interest group process both within and outside the organisation, the thesis attempts to offer an explanation for the indifferent outcomes of so many State sponsored development programmes in India.

The Theoretical Framework

In studying the interaction between the State and the organisation, we have adopted a political economy

⁶⁰ See Chapter II for a discussion on the dominant groups in Kerala. We have not identified industrialists as a major dominant group in Kerala, since apart from the contractors who supply country liquor(the so called "liquor barons"), big business is not a major force in Kerala.

approach. "Political economy" observes Zald "is the study of the interplay of power, the goals of power wielders and the productive exchange system".⁶¹ In this model, resource allocation does not occur through the frictionless functioning of the "invisible hand". Rather it views institutions as political entities in which groups compete for resources and power. It is, therefore, useful to view organisations, as Cyert and March do, as "a coalition of interacting groups."⁶² In this view, an organisation is "a political as well as a resource allocating system", in which each group has particular interests which it seeks to maximise.⁶³

Group competition is resolved either through bargaining between groups or by one group imposing its own agenda. Bargaining occurs most frequently when power is diffused between groups and no single group has an overwhelming advantage. In State sponsored institutions, such as co-operatives, access to State elites becomes the key variable that determines the outcome of group competition. The State, with its monopoly over coercive authority, can manipulate outcomes favourable to it.

We distinguish five key groups involved in the implementation of OF in Kerala. They are: the national

⁶¹ See Zald M N "Power in Organisations". Quoted in Jackson P M: The Political Economy of Bureaucracy. Deddington: Philip Allan Publishers Ltd. 1982, P: 74.

⁶² See Cyert R.M and March J.G: A Behavioural Theory of the Firm. Englewood: Prentice Hall Inc. 1963.

⁶³ See Jackson P. M. 1982. op cit.

technocracy represented by the NDDB, the dairy bureaucracy in Kerala, organised labour, Co-operative elites and State elites. By Co-operative elites we mean the elected/nominated decision makers in OF institutions and their key allies. By State elites we refer to elected political officials such as ministers and members of the legislative assembly(MLAs) , senior party leaders and senior civil servants.

We will argue that the sub optimal results of OF in Kerala is due to the interest group process which subordinates the interests of dairy farmers to that of the dominant groups within the polity. Professional politicians dominate the decision making process within OF institutions in Kerala. Their interests are best maximised by acceding to the wishes of State elites such as ministers and party leaders. The latter nominate the first board of the co-operatives, extend resources of the party for subsequent elections and reward pliant co-operators by sponsoring them as candidates in the assembly elections.

In these circumstances, it is not surprising that policy decisions on such key areas as product pricing tend to reflect the interests of the State elites rather than that of dairy farmers. Further, organisational resources get diverted from the nominal target groups to groups that have access to State elites. Overambitious projects, excess staff and the sale of goods at below market prices to favoured customers, are some of the more common manifestations of this diversion. Group conflicts within OF

institutions in Kerala are therefore resolved in favour of groups that are allied to or subordinate to State elites. Since the role of the State is crucial to programme outcomes, the motives and priorities of State elites need to be understood.

State and Development in the Third World

The comparative failure of Third World States to promote sustainable development has been intensely debated. T.N Srinivasan argues that in the early development literature, the State was conceived as a benevolent, disinterested actor, capable of intervening "in an optimal way to correct any market failure".⁶⁴ But economic policies, as Coleman argues, represent conscious political choices.⁶⁵ Consequently, the political process by which economic policies are initiated and determined is of crucial significance.

Several competing paradigms of political economy can be distinguished. In his analysis of the contemporary Indian scene, Toye identifies three distinctive approaches: The first is a neo-classical paradigm, the second posits a conflict between town and country - the urban bias model - and the third is "a political economy of class opposition among dominant social classes in the Marxist

⁶⁴ See Srinivasan T N. " Neoclassical Political Economy, the State and Economic Development". Asian Development Review. Studies of Asian and Pacific Economic Issues. Vol:3, No:2. 1985.

⁶⁵ See Coleman J S. " The Resurrection of Political Economy " in Uphoff N.T and Ilchman W.F ed: The Political Economy of Development. Berkeley: University of California Press. 1972.

tradition".⁶⁶ Pedersen's recent analysis identifies the neo classical and Marxian approaches as the two dominant analytical frameworks for studying the development process in India.⁶⁷ A brief review of some of the major contributions in the competing approaches will clarify our argument.

A great deal of the neo - classical critique of India's development process centres on trade and industrial policy. The physical controls over foreign trade and the elaborate industrial licensing procedures are said to have spawned a bloated, inefficient and corrupt system that effectively retards development.⁶⁸ State officials were said to be engaged in activities variously described as "rent seeking"⁶⁹ and " Directly Unproductive Profit Seeking (DUP)" activities.⁷⁰ From these concepts was developed the theory that India is a rent seeking society; ie a Society, in which, the incentive system is biased, not towards productive individuals, but towards those who seek to manipulate the State and its agencies. Such economists

⁶⁶ See Toye J " Political Economy and the Analysis of Indian Development ". Modern Asian Studies. Vol 22.1. 1988 .P:98.

⁶⁷ See Pedersen J D " State, Bureaucracy and Change in India". The Journal of Development Studies. Vol 28 No 4, July 1992 .

⁶⁸ Bhagwati J.N and Desai P. 1970. op cit.

⁶⁹ See Krueger A O. " The Political Economy of the Rent Seeking Society". The American Economic Review. 64.2. 1974.

⁷⁰ See Bhagwati J N ,Breecher R A and Srinivasan T N " DUP Activities and Economic Theory " in Colander D.C ed: Neo Classical Political Economy: The Analysis of Rent-Seeking and DUP Activities. Cambridge: Ballinger Publishing Co. 1984.

believe that the State, far from being " an exogenous force, trying to do good---- is at least partially endogenous and the policies it institutes will reflect vested interests in society".⁷¹

Neo-classical political economy has been greatly influenced by the theories of Olson, Tullock and other theorists associated with the Collective and Public Choice schools.⁷² Using concepts derived from neo classical economics, theorists of these schools have built elaborate models of " non market decision making".⁷³ In these models, State intervention leads to inefficiencies, because, State elites being rational actors pursue policies, which, while maximising individual benefits, impose collective costs.

Olson argues that due to the free rider problem, individuals organise themselves for collective action most successfully in small groups, or when they can impose selective incentives on group members.⁷⁴ However, such

⁷¹ See Colander D.C: "Introduction" in Colander D.C. ed: 1984. op cit. P:2.

⁷² See 1) Olson M: The Logic of Collective Action: Public Goods and the Theory of Groups. Cambridge, Massa: Harvard University Press, 1965. and The Rise and Decline of Nations: Economic Growth, Stagflation and Social Rigidities. New Haven: Yale University Press. 1982.

2) Tullock G: The Politics of Bureaucracy. Lanham: University Press of America. 1987. and The Economics of Special Privilege and Rent Seeking. Boston: Kluwer Academic Publishers. 1989.

3) Rowley C.K, Tollison R.D and Tullock G : The Political Economy of Rent-seeking. Boston : Kluwer Academic Publishers. 1988.

⁷³ See McLean I : Public Choice: An Introduction. Oxford: Basil Blackwell. 1987.

⁷⁴ See Olson M .1965. op cit.

groups of self interested individuals are more likely to redistribute resources to themselves rather than work towards the common good of increasing the national income. Economic growth or increased economic efficiency is a public good, the benefits of which do not accrue exclusively to those who bear the transaction costs in providing it. Such individual optimising behaviour, argues Olson, will in stable societies lead to the creation of what he calls "distributional coalitions".⁷⁵ These coalitions, it is argued, being primarily interested in redistribution, slow down a society's capacity to introduce technical change and thus contracts the production potential of the economy.

The negative effects of an expanding State are explored in detail by Tullock.⁷⁶ He argues that since the expansion of the State's activities opens up space for rent, rational individuals will prefer to engage in such activities rather than compete in the market. Time and resources will be expended in either lobbying the government or individuals may be encouraged to bid directly for decision making power so as to enjoy the rents that an expanding State sector provides.

This very brief outline of the Collective Choice/Public Choice critique of State intervention reveals that theorists belonging to the school share certain common assumptions of State-Society relations. The State, far from

⁷⁵ See Olson M. 1982. op cit.

⁷⁶ See Tullock G. 1987, 1988 and 1989. op cit.

being a benign and disinterested maximiser of the public good, is seen as " pushed and pulled by lobbies and interest groups that are mostly interested in redistribution rather than growth and development".⁷⁷

This view has been criticised as too monochromatic by other social scientists. Shapiro and Taylor argue that " in attacking the government, neoclassical political economy, posits an idealized market in its stead.....The political arena is depicted as full of lobbyists and cartel builders, while the economy is presented as being more or less subject to competition".⁷⁸ Dearlove also attacks the normative assumptions of the Public Choice theorists, which idealizes the virtues of a free market against a coercive and inefficient State.⁷⁹ Even sympathetic observers agree that quite often, Public Choice models tend to identify congenial factors while ignoring contrary ones.⁸⁰

A more fundamental critique of the Public Choice school is its understatement of the serious pitfalls inherent in the " transfer of analytical tools and modes of reasoning developed within one discipline to another".⁸¹ The concept of individual rationality, while valid for analysing behaviour at the micro level, becomes problematic

⁷⁷ Srinivasan T N. 1985. op cit. P:45.

⁷⁸ See Shapiro H and Taylor L " The State and Industrial Strategy". World Development. Vol: 18, No: 6. 1990.P: 866 & 867

⁷⁹ See Dearlove J " Economists on the State". IDS Bulletin. Vol 18, No 3. 1987

⁸⁰ See Wade L L " Political Economy: Problems and Paradigms", in Wade L ed: Political Economy: Recent Views. Boston:Kluwer- Nijhoff Publishing. 1883.

⁸¹ See Hirschman A O: A Bias for Hope. Essays on Development and Latin America. New Haven: Yale University Press. 1971.P:4.

when " transported into macro-social contexts, and huge classes are treated as if they were rational calculating individuals".⁸² Staniland argues that the Public Choice assumption of unbounded rationality is a negation of reality as all individuals are not equally well informed and are thus not well placed to realize their preferences.⁸³ Further, the emphasis on the optimizing individual, tends to underplay the explanatory power of social institutions such as classes in determining outcomes.

In contrast to the neo-classical preoccupation with the individual utility maximizer and the conventional Marxian class categorisation, the "urban bias school" adopts the concept of economic sectors to analyze resource allocation patterns. Positing a fundamental conflict between the rural/agricultural sector and the urban/industrial sector, Lipton suggests that State action in favour of urban groups is responsible for the retarded development process in Third World countries.⁸⁴ In India, which is the focus of Lipton's study, a coalition of urban interest groups is identified as the chief beneficiary of development. These groups, through their access to policy makers are able to influence policy in their favour. The

⁸² See Toye J " Political Economy and the Analysis of Indian Development". 1988. op cit. P:117.

⁸³ See Staniland M: What is Political Economy?. New Haven: Yale University Press. 1985

⁸⁴ See Lipton M: Why Poor People Stay Poor: A Study of Urban Bias in World Development. London: Maurice Temple Smith. 1977.

resultant pattern of resource allocation is said to be detrimental to the interests of the majority of the population.

The existence of negative agricultural policies, such as monopoly procurement and price controls, indicate that the urban bias school is highlighting a well documented phenomenon. Further, in contrast to the dependency theorists,⁸⁵ they locate the phenomenon of underdevelopment within the economy of individual countries. Finally, by identifying an urban class that controls and shapes policy, this school makes it explicit that it is socio-political forces that determine economic outcomes.

The Urban Bias thesis, as expounded by Lipton, suffers from some infirmities. The lack of clarity in identifying the groups that constitute the urban class reduces its explanatory power. The bureaucracy and the rural elites are sometimes identified as part of the group and sometimes outside it.⁸⁶ Such imprecision may lead to very contradictory conclusions. M. Moore points out that while Lipton attributes India's slow growth rate to the distorting influence of the urban interest groups, A. Mitra, working within a similar framework, comes to the conclusion

⁸⁵ See Frank A G : Dependent Accumulation and Under Development. London: Macmillan. 1978.

⁸⁶ See Toye J. 1988. op cit.

that it is the power of the rural rich that retards the development process in India.⁸⁷

A significant lacuna in the urban bias thesis is its implicit assumption of the homogeneity of the rural sector. Rich and poor farmers have opposing interests, as is the case with producers of food and cash crops. Similarly, small holders who are net purchasers of food and large holders who are net sellers have different priorities. The former desires lower food prices, while the latter would attempt to obtain maximum prices for food crops. Further, as Moore observes, patterns of peasant mobilisation are more often based on collective identities such as religion and caste than on functional lines such as occupation.⁸⁸

Bardhan's paradigm of the dominant propertied classes and Bates' concept of the "price setting coalition" are two well known attempts to integrate the insights derived from the public choice school and the urban bias thesis.⁸⁹ Bardhan argues that society centred theories of

⁸⁷ See Moore M "Political Economy and the Rural Urban Divide: 1767-1981". The Journal of Development Studies. Special Issue on "Development and the Rural Urban Divide". Vol: XX, No 3. 1984.

⁸⁸ See Moore M : The State and Peasant Politics in Sri Lanka. Cambridge:Cambridge University Press. 1985.

⁸⁹ Bardhan P The Political Economy of Development in India. Oxford: Blackwell.1984.

Bates R H:

1) Markets and States in Tropical Africa: The Political Basis of Agricultural Policies. Berkeley: University of California Press. 1981.

policies and governments tend to ignore the role of States as "potent and autonomous actors". He rejects both the public choice argument that State elites are driven only by motives of self interest and the "vulgar" Marxian concept of the State as a mere instrument of the dominant class. In many instances of State policy, elites are seen to be genuinely concerned to promote the public good. However, over time, the Indian State's capacity for autonomous choice has been constrained by the pressure of newly emergent societal forces.⁹⁰

Bardhan identifies the bureaucracy, the class of rich farmers and the class of indigenous industrialists as the new dominant proprietary classes that determine policy outcomes. The members of this coalition have diverse economic and political interests. Bardhan argues, that as no one group is able to impose its own agenda on the others, the collective interests of this group are best served by

2) Essays on the Political Economy of Rural Africa. Cambridge: Cambridge University Press. 1983.

3) Beyond the Miracle of the Market: The Political Economy of Agrarian Development in Kenya. Cambridge: Cambridge University Press. 1989.

Bates R H ed: Towards a Political Economy of Development: A Rational Choice Perspective. Berkeley: University of California Press. 1988.

⁹⁰ The inability of the Indian State to withstand societal pressures is the focus of a great deal of critical attention in recent years. See Rudolph L I and Rudolph S H. 1987. op cit. and Kohli A : Democracy and Disorder: India's Growing Crisis of Governability. Cambridge University Press. 1990.

For an alternative viewpoint See Mitra S K "Democracy and Political Change in India", The Journal of Commonwealth and Comparative Politics. Special Issue on "Democracy in South Asia".

Vol: XXX No 1. March 1992 and Mitra S K ed The Post Colonial State in Asia. Harvester Wheatsheaf. 1990.

an expanding State sector. So, the phenomenal expansion of the public sector, the proliferation of subsidies and grants and the reliance on licensing procedure are all manifestations of the pressure brought by the dominant classes on a debilitated State.

Bates' study of States and markets in Africa, is a major contribution to the study of the politics of policy formulation in developing countries. Based on the experience of several sub-Saharan countries, his analysis of agrarian policies casts serious doubts on the efficacy of State intervention in agriculture. Though working in the Collective Choice tradition, he avoids, according to Staniland, many of its defects, as "he is less insistent on asserting the universal triumph of self..... over collective interest or at least making the two mutually exclusive".⁹¹ He does not share the easy optimism that individual optimizing behaviour will result in optimum collective interests. Instead, he recognizes that in the pursuit of self-interest, individuals may turn to political institutions for securing advantages that they are unable to secure in the market. This process, however, while maximizing the self interest of a small elite, is likely to impose collective costs.

Bates' study reveals that governments in Africa intervene in agricultural markets in ways that are detrimental to the interests of the majority of the population. They tend to adopt low price policies for farm

⁹¹ See Staniland M. 1985. op cit. P: 58.

products and increase the prices farmers must pay for the goods they consume. While they subsidize inputs, the benefits of these subsidies are appropriated by the richer few. Further, despite the poor performance of most agricultural programmes, governments continue to formulate and launch new programmes on similar lines.

Exploring the rationale for such behaviour, Bates identifies three approaches for the study of State intervention in the economy: 1) Governments as agents of the public interest. 2) Governments as agents of private interests and 3) Governments as agencies that seek to retain power.

The stated objective of most State interventions in developing countries is the rapid transformation of a peasant economy through industrialisation. Towards that end, governments attempt to shift resources away from agriculture towards industry through a variety of means. These include the maintenance of an overvalued exchange rate, quantitative and tariff restrictions on the import of industrial goods and controls over agricultural prices.

Bates, however, is sceptical of this social welfare maximizing interpretation of government. He argues that if agrarian policies, such as price controls, are designed with the disinterested objective of providing cheap food, a more efficient policy would be to offer higher product prices. The current policy merely encourages farmers to shift away from food production to cash crops and thus defeat the government's stated objective. The

concept of the State as a disinterested maximiser of the public good, therefore, does not provide an adequate explanation for the policy choices made by most Third World States.

The second approach is an interest group model, which views government policy as the result of pressures exerted by organised private interests. This model offers an explanation for several distinctive sets of State policy towards agriculture: monopoly procurement, price controls and the reliance on subsidies and projects rather than on prices to increase agricultural production.

These policies, argues Bates, reflect the interests of what he calls the "policy making, price setting coalition". The members of the coalition include labour, industry, State officials and politicians. This coalition is interested in cheap food, as in underdeveloped countries a large percentage of the consumer budget is spent on it. High food prices are a source of social unrest, which threaten the stability of fragile political regimes. Hence, monopoly procurement and price controls are initiated to keep down the price of food. Agricultural policy is seen as "a by product of governmental efforts to maintain peaceful political relations with urban political forces".⁹²

The interest group model, observes Bates, does not fully explain the State's ability to initiate and maintain policies that are inimical to the interests of the

⁹² See Bates R H. 1983. op cit. P:122.

vast majority of agricultural producers. In nations, where the majority of the population are farmers, the government's ability to get away with policies that violate their interests, cannot be explained solely by the interest group model. The concept of governments as agencies that seek to retain power is, therefore, advanced to build on the interest group model.

State elites, argues Bates, have no incentive to offer high product prices, since this is a collective good enjoyable by all farmers. Project based programmes, however, offer opportunities for State elites to build a political constituency through selective incentives. State officials have a great deal of discretion in deciding where to locate projects, who should staff them, and which group of farmers should be given subsidized inputs. Further, State intervention creates space for rents, which can be consumed by the State elites themselves or they can be utilised for political patronage. This political utility of rents explains why, despite the inefficiency of many projects, governments continue to sponsor and implement similar projects. Bates contends, that "if a project fails to generate an adequate return on the public investment, but nonetheless is privately rewarding for those who build it, provision it and staff it, or hold tenancies in it, then political officials may support it, for the project will serve as a source of rewards for their followers and as an instrument for building a rural political organization".⁹³

Bates' analysis of agrarian policies in Africa, thus indicates that they are the product of autonomous

⁹³ See Bates R H: "Governments and Agricultural Markets in Africa" in Bates R.H ed: 1988. op cit. P:352.

choices made by State elites. While he recognises the pressures brought on the State by well organised interest groups, policy outcomes are not determined solely by societal forces. Political forces, he argues " may be fully autonomous and, as a consequence, may act at the cost of economic rationality and solely in service of themselves.". ⁹⁴

In this thesis, we have utilised some of the insights derived from Bates' study of states and markets in Africa. There are, however, constraints in applying Bates' concepts to the study of State policies in Kerala. In the state, unlike in the countries studied by Bates, the rural-urban divide is not very salient. Owing to Kerala's high density of population ⁹⁵ and its dispersed settlement pattern -with villages running seamless into towns- much of the state, especially along the coast, exhibits semi-urban characteristics.⁹⁶ Moreover, industries in Kerala are not located in urban centres alone. Almost all the cashew factories, for instance, are located in the outlying rural panchayats of Quilon district, rather than in Quilon town.⁹⁷ Therefore, arguments which seek to explain the

⁹⁴ Bates R H. 1983. op cit. P:147.

⁹⁵ The density of population in Kerala is 747 persons per sq.Km, as against the All-India average of 267 persons. See : Census Results at a Glance. Census of India.1991. op cit.

⁹⁶ For a discussion on the unique settlement pattern of Kerala, See Sreekumar T.T : " Neither Rural nor Urban: Spatial Formation and Development Process". Economic and Political Weekly. Vol: XXV. Nos: 35 & 36. 1990.

⁹⁷ Field Visit. June-July. 1991.

rationale of State policies in Kerala, in terms of a dichotomy between town and country, are unlikely to yield much explanatory power.

Bates' interest group model, however, can be applied to Kerala. This model views "public policy as the outcome of political pressures exerted by groups that seek satisfaction of their private interests from political action ".⁹⁸ Group competition in Kerala tends to produce sub-optimal results for food producers. This is a product of both ideology ⁹⁹and the increasing political prominence of non-food producers in the state.¹⁰⁰ Ideologically

⁹⁸ See Bates R.H: " Governments and Agricultural Markets in Africa", in Bates R.H ed: 1988. op cit. P: 345.

⁹⁹ The Communist Party of India (Marxist), had serious reservations about offering higher agricultural prices to all farmers. P Sunderayya, one of the prominent leaders of the party, wrote in 1973 that the demand for "fair price" for agricultural commodities does not mean that all peasants are entitled to it. He wrote :" When we demand fair prices ----- it does not mean that these minimum prices should be assured even to ----- landlords. We can certainly demand that the whole of the produce of these landlords be completely procured by the government for meeting the needs of the people". P. Sunderayya. Explanatory note to the Central Committee Resolution adopted at the party congress in 1973 at Muzaffapur. Quoted by : Krishnaji N in : " Agrarian Relations and the Left Movement in Kerala: A Note on Recent Trends". Economic and Political Weekly. Vol:XIV. No:9. 1979.

¹⁰⁰ Kerala is a food-deficit state. In 1989-90, it produced only about 23% of the rice required for its consumption. The production of rice has declined from a high of 1.38 million tonnes in 1972-73 to only 1.14 million in 1989-90, while during the same period, population increased from 21.97 to 29.01 million. We have no precise information on the number of rice producers in the state. However, cultivators, as a percentage of the working population of Kerala, declined from 21% in 1961 to only 12% in 1991.

See: 1) "Statistics for Planning.1982 ". The Bureau of Economics and Statistics. Government of Kerala. Trivandrum. 1982.
2) " Economic Review". 1990. State Planning Board. Government of Kerala. Trivandrum. 1990.

committed, left of centre parties have held power for long periods in Kerala.¹⁰¹ They have followed a modernisation programme, the chief elements of which are : redistributive measures such as land reforms, food security and pension schemes; and an industrialisation strategy largely premised on the public ownership of the means of production.

The thesis suggests that past interventions have contributed to the creation of a vast, expanded State sector (See Chapter II). The beneficiaries of this expansion, who include professional politicians, the bureaucracy and organised labour, seek policies that perpetuate and enhance their relative political and economic positions. Labour in Kerala, both industrial and non-industrial, is organised by political parties. Labour unions are of great strategic value to political leaders, as individual careers can be furthered by the control of unions. Further, at the time of elections, rival parties deploy their affiliated unions to canvass votes and collect money. The bureaucracy is also vital to political parties,

3) "Census Results at a Glance ". 1991. op cit.

4) Suseelan P :" Problems and Prospects of Rice in Kerala". Paper presented at the Workshop on Agricultural Development. Trivandrum. 6/10/1988.

¹⁰¹ For an analysis of the role played by communist parties in the transformation of Kerala's social and political institutions, see Nossiter T.J : Communism in Kerala : A Study in Political Adaptation. London: C.Hurst for the Royal Institute of International Affairs.1982.

Bates observes that in Africa, it is the "radical" governments that most often impose lower food prices on the peasantry. The major reason for this behaviour is that it is these governments that are most committed to industrialisation and they have deep institutional ties to organized labour. See Bates R.H :" Governments and Agricultural Markets in Africa", in Bates R.H ed: 1988. op cit.

as the resources of a vast State sector can be deployed for political patronage. Both these groups, being consumers, are interested in the availability of cheap food. Since both are of strategic value to political leaders, and since the State itself is the largest employer of organised labour in Kerala,¹⁰² State elites also favour policies that lower the price of food. In these circumstances, farmers producing commodities required for the consumption of these groups are adversely affected through price controls, monopoly procurement and other negative policies.

The rationale for inefficient institutions and ruinous policies can also be traced to the benefits such policies confer on political leaders. Programmes such as OF, while allowing the State to provide consumption goods at below market prices, afford opportunities for building and nurturing a political constituency. Political allies and followers can be accommodated in OF institutions, organisational resources can be diverted to reward key lieutenants and rural co-operatives facilitate the political mobilisation of the peasantry. In the process, the goals of the programme are fundamentally altered: OF institutions, instead of aggregating the interests of milk producers, are instead transformed into a mechanism for the extraction of resources.

¹⁰² In 1989, 56% of the workforce in the organised sector in Kerala was employed by the State. "Economic Review". 1990. op cit. See Chapter II for a discussion on the role of the State in Kerala's economy.

Data Source

Our primary source of data is the confidential records of the various OF institutions in Kerala. They are The Kerala Co-operative Milk Marketing Federation (KCMMF), the Trivandrum Regional Co-operative Milk Producers' Union (TRCMPU), the Ernakulam Regional Milk Producers' Union and the Malabar Regional Milk Producers' Union (MRCMPU). In addition, confidential records of non OF institutions such as the Calicut Milk Supplies Union (CMS) and the Malappuram District Co-operative Milk Supplies Union (MDCMSU) were studied. These records include internal memos, balance sheets, cost calculations, internal evaluation studies and minutes of the Board of Directors.

A sample survey was undertaken to ascertain the views of the farmers about the programme. The survey was conducted during the months of June and July 1991 and covered 456 farmers from four districts of Kerala. A stratified random sampling method was used to identify the farmers. The state was first divided into two regions -- the south/central region where OF had been in progress for nearly a decade and North Kerala (Malabar) where OF was introduced formally only in 1989. The two regions were then subdivided into two districts each to correspond to the four institutions we proposed to study in depth. These four institutions were: TRCMPU and ERCMPU, both OF institutions; CMS and MDCMSU, both non- OF institutions. Five societies affiliated to each union were selected for intense study ¹⁰³.

¹⁰³ See Appendix I for a list of the societies.

Once the societies were selected, information on land holding patterns was collected from a randomly selected population of some 1300 farmers who were supplying milk to the society. Based on the amount of land held by each individual, the population was then subdivided into six categories: 1) Less than 10 cents ¹⁰⁴. 2) 11 to 50 cents. 3) 51 to 100 cents. 4) 101 to 200 cents. 5) 201 to 500 cents. 6) above 500 cents. From this list a sample of 456 farmers was randomly selected and interviewed. ¹⁰⁵

In addition, the Presidents of each of the twenty societies were interviewed personally by the author. Detailed, confidential information was also collected from these societies so as to get an accurate picture of the impact of the programme on the ground. Interviews were also conducted with key actors involved in the programme. They included the Chairman of the NDDB, the former Chief Secretary of Kerala who was instrumental in introducing the programme to Kerala and co-operative leaders of OF and non OF institutions.¹⁰⁶

Primary data on the economy of Kerala was collected from a large number of Government publications including, Statistics for Planning, the Plan documents and various issues of the Economic Review (Kerala State). Secondary data included the Working Papers of the Centre

¹⁰⁴ 100 cents make an acre.

¹⁰⁵ See Appendix II for the Questionnaire,

¹⁰⁶ See Appendix III for list of individuals interviewed.

For Development Studies, Trivandrum, various periodicals and books.

The Structure of the Thesis

The thesis is organised into eight chapters. Chapter I has briefly reviewed the current debate on Operation Flood and provides the theoretical framework of the study. Chapter II highlights the contradictory impulses in Kerala's political economy: exceptional performances in the social indices of development coexisting with poor performance of the commodity producing sectors of the economy. The chapter also identifies the dominant interest groups in the polity and illustrates their functioning with a review of agrarian polices.

Chapter III discusses the nature of State intervention in dairy markets prior to 1980. This intervention has had sub-optimal results. The institutions created by the State - State owned dairy plants and Government sponsored milk supply unions- were financially fragile structures, unable to provide assured markets and remunerative prices to dairy farmers.

The design of OF structures in Kerala and their implication for the programme are discussed in Chapter IV. It suggests that conflicts between the key actors profoundly influenced the direction in which the programme evolved in Kerala.

Chapters V and VI analyze the success of OF on the basis of four criteria :1) increase in milk production;

2) ability to manage seasonal variations; 3) financial viability and 4) Milk prices. The analysis suggests that while OF had some success in stabilising dairy markets, it failed to provide financially viable, producer friendly institutions. This failure is traced both to market forces and the interest group process within the organisation.

The performance of OF outside Kerala is examined in Chapter VII. The programme increased milk production in specific regions of the country. But the majority of OF institutions are financially weak, unable to offer producers remunerative prices or even pay them on time. Analysis of similar programmes in the coconut and fisheries sectors in Kerala, revealed that they too, produced sub-optimal results.

The indifferent outcomes of so many agrarian policies in Kerala, we conclude, is a product of the interest group process both within the organisations created to implement them and in the larger polity outside. Farmers producing goods required for the consumption of the dominant groups are adversely affected despite the creation of institutions designed to protect their interests. In such institutions, groups having access to State power are able to corner the bulk of the organisation's resources. As a consequence, the ability of these institutions to aggregate the interests of peasants is severely impaired.

The Development Paradox of Kerala

INTRODUCTION

The development paradox of Kerala is a recurring theme in the literature on the province. Remarkable results in the fields of literacy, health care and public distribution of food have been achieved despite low levels of per capita income. This success has encouraged scholars to speculate about a "Kerala model of development" which can be replicated elsewhere.¹ The commodity producing sectors of the economy, however, has performed poorly, leading to stagnant incomes and rising unemployment. In this Chapter we analyze the nature of Kerala's development experience during the last three decades.

We first examine the dominant trends in Kerala's economy. In several social indicators of development, including literacy, infant mortality rates and access to subsidized food, Kerala's performance was remarkable. (See below). The industrial structure, however, is both inefficient and technologically obsolete. Further, State initiative in industrial development has largely been confined to the direct ownership of industrial concerns. This industrial structure- labour intensive, low technology

¹ See Jeffrey R. 1992 and Franke R.W and Chasin B.H. 1989. op cit.

based and State owned- has significant implications for agricultural policy.

The nature of party politics in Kerala has significantly influenced policy outcomes both in industry and agriculture. Two features of Kerala's polity are particularly significant for our analysis - the presence of two radical Communist parties with mass following and the instability of Kerala's political coalitions. It is undeniable that initially, the ideological commitment of the Communist parties in Kerala has been responsible for the effective implementation of several redistributive measures, such as land reforms, old age and destitute pensions, and an effective public distribution system.² But the record of both the Communist and Congress governments is poor with respect to industrial and agricultural development.³

This poor record is partly due to the exigencies of coalition politics, which devolves on well organised interest groups, a highly disproportionate access to policy formulation. The dominant groups in the polity, which include full time politicians, the higher bureaucracy(the All India Services- the IAS, IPS and the IFS) and trade unions are able to generate policies that enhance their

² See Nossiter T.J .1982. op cit.

³ ibid.

relative position in the economy. Industrial strategy has been primarily oriented towards increasing the share of the public sector, while simultaneously maintaining its traditional, labour intensive character (See below).

The agrarian policies of the State are more complex and harder to decipher. In the case of a number of commodities, including paddy and milk, we observe policies which at first sight appear contradictory- for instance policies, that offer cheap credit and subsidy coexisting with controlled prices and monopoly procurement. These contradictions are easier to understand if we interpret them as the result of the dynamics of the interest group process within the polity. The ideological bias of the leftist parties as well as the interests of the dominant groups in Kerala, favour policies that subordinate agriculture to industry. This conclusion however, has to be modified with the qualification that when the vital interests of the dominant groups are not involved, agrarian policies appear to be very positive, as in the case of rubber.

SECTION I

The Development Paradox.

Kerala exhibits what has been called "a paradox of social development and economic backwardness".⁴ The

⁴ This is the subtitle of a book by Panikar and Soman. See Panikar P.G.K and Soman C.R: Health Status of Kerala: Paradox of Social Development and Economic Backwardness. Centre for

paradox can best be illustrated by juxtaposing the following tables: (Commentary follows after the tables).

TABLE II.1

Selected Indices of Social Development: Kerala and India.

1951-88

	Literacy Rate		Infant Mortality Rate		Birth Rate	
	%		(per 000)		(per 000)	
	1961	1981	1951-60	1988	1951-60	1988
Kerala	46.8	91.00	120	24	39.9	19.9
India	24.2	52.00	146	94	41.7	31.3

Sources: (1) Census of India. 1991. Government of India.
 (2) Economic Review - various issues. State Planning Board.
 Government of Kerala. (3) Approach to the Eighth Five Year
 Plan. 1989. State Planning Board. Government of Kerala.

TABLE II.2

Growth Rates of Population, Aggregate and Sectoral Incomes in Kerala: 1962-86.

Average for the period.

	1962-63 to 1974-75	1975-76 to 1985-86	1962-63 to 1985-86
I Aggregate	3.21	1.76	2.40
A) Primary	2.23	-0.70	1.05
B) Secondary	4.71	2.15	3.68
C) Tertiary	4.24	5.32	4.67
II Population	2.10	1.55	1.93
III Net Growth Rate	1.11	0.21	0.47

Source: K.P Kannan and K Pushpangadan: "Agricultural Stagnation and Economic Growth in Kerala : An Exploratory Analysis." Working Paper No: 227. Centre for Development Studies. Trivandrum. 1989.

TABLE II.3

Comparative Statement of Per Capita Incomes: Kerala and India. 1960-85.

Rs per annum (1970-71 prices)

Year	Kerala	India	Index*
1960-61 to 64-65	510	573	0.90
1970-71 to 75-76	603	620	0.97
1975-76 to 79-80	599	678	0.88
1980-81 to 84-85	615	735	0.83

* Per capita income of Kerala as a percentage of the national average.

Source: Eighth Five Year Plan Document. State Planning Board. 1989. Government of Kerala.

Table II.1 shows how far Kerala is ahead of the rest of India in social development. The historical legacy of some of the enlightened rulers of Travancore, as well as conscious policy choices in the post- independence period were equally responsible for this achievement⁵. Observers have also noted that the health care system in Kerala is more accessible than most other provinces, even though the per capita expenditure may be less in Kerala.⁶ This is because the delivery system is not confined to cities, but spread more evenly across the province. A public distribution system which covers a significant section of the population, special programmes such as supplementary feeding for pregnant mothers and children below the age of five, free noon meal schemes for school going children, and a host of other programmes have enabled the more vulnerable sections of the population to meet their calorific requirements. These welfare programmes were buttressed by an elaborate social security system that included various types of pensions, including pensions for agricultural workers, unemployment assistance and grants to poor widows. These measures coupled with substantial investment in primary education account for the success noted above.

Tables II.2 and II.3 however point to the contradictions of Kerala's development experience -

⁵ See Jeffrey R. 1992. op cit.

⁶ See, T N Krishnan: " Demographic Transition in Kerala: Facts and Factors". Economic and Political Weekly, Special Number, Vol: XI. Nos: 31,32 & 33. 1976 .

outstanding achievements in minimum needs juxtaposed against dismal performance in economic growth. The performance of the agricultural sector especially, has been very poor. Table II.4 shows the average annual production of some of the principal crops during the Plan periods since 1961.

TABLE II.4

Average Annual Production of Principal Crops in Kerala.
1961-1990.

(unit:000 tonnes,* million nuts)

Period	Rice	Tapioca	Coconut*	Cashewnut	Rubber
1961-66	1058.7	2295.42	3277	92.08	34.69
1969-74	1301.92	5212.82	3923	113.77	90.91
1974-79	1296.94	4874.69	3354	98.75	129.36
1980-85	1276.38	3961.30	3043	78.07	153.35
1985-90	1085.44	2972.81	3408	89.33	210.45

Note: The unit for all the commodities other than coconut is: 000 tonnes.

Source: same as for table II.3

Only rubber has consistently performed well. A number of explanations have been offered for the indifferent performance of the agricultural sector. Some observers point to the State's failure to invest adequately in collective goods such as irrigation and land

development;⁷ others however, deny that there has been any sustained negative growth and attribute the lower figures to the cyclical nature of production in plantation crops.⁸ In section 3, we shall show that market forces and State policy have equally contributed to the decline of some commodities and the growth of others.

Table II.2 reveals that though industrial growth rates are substantially higher than agriculture, they have halved since the mid seventies. It is, however, very debatable whether these growth rates can be taken at their face value. Detailed analysis within the secondary sector shows that much of the growth rates are accounted for by State investment in electricity generation and water supply.⁹ The manufacturing sector has shown little dynamism. During the period 1969-79, the growth rate in value-added in the factory sector in Kerala was only 2.12 % as against the national average of 6.07 %.¹⁰

Kerala's industrial base is small. The province accounted for only 3.4 % of the national industrial output

⁷ K P Kannan and K Pushpangadan: "Agricultural Stagnation and Economic Growth: An Exploratory Analysis". Working paper No:227. Centre for Development Studies. Trivandrum. 1989.

⁸ D Narayana : "Agricultural Economy of Kerala in the Post Seventies: Stagnation or Cycles ? ". Working Paper No: 235. Centre for Development Studies. Trivandrum. 1990

⁹ "Economic Review". Various Issues. State Planning Board. Government of Kerala. Trivandrum.

¹⁰ See Subrahmanian K.K and Pillai M.P : " Kerala's Industrial Backwardness: An Exploration of Alternative Hypotheses." Working Paper No: 210. Centre for Development Studies. Trivandrum. 1985.

from factories in 1980-81.¹¹ In recent years, the relative importance of industry has declined further. The share of the secondary sector in the net state domestic product has declined from 24.6 % in 1980-81 to 22.7 % in 1989-90.¹²

This is not surprising, considering the nature of the industrial structure in Kerala.

Traditional, labour intensive industries such as cashew, handloom, coir and beedi dominate the industrial scene in Kerala. Within the factory sector itself, they account for over 51% of the employment.¹³ Besides this, millions are employed in the co-operative and unorganised sectors. Industrial labour is highly unionised both within and outside the factory sector. Due to a variety of factors, the technological base of Kerala's industrial structure has become increasingly obsolete.

First, traditional industries are increasingly shifting their activities from the organised to the unorganised sector.¹⁴ Between 1950 and 1981, the number of workers directly employed in the factory sector in the coir

¹¹ *ibid.*

¹² "Economic Review". 1990. op cit.

¹³ *ibid.*

¹⁴ Between 1970 and 1985, factories employing 10 or more persons and using power increased from 1785 to 2725. However, those with less than 10 increased enormously from 724 to 7043. The significance of these numbers lies in the fact that organisations with less than 10 employees do not come under the purview of the Factories Act. Since workers in these organisations are not entitled to many of the statutory benefits given in the factory sector, employers prefer to keep their operation as small as possible. "Economic Review". Various Issues. op cit.

industry, fell from 18,500 to just 2200.¹⁵ A similar phenomenon was observed by the author in the handloom industry of Cannanore.¹⁶ Second, entrepreneurs have increasingly tended to shift their operation from Kerala to the neighbouring provinces of Tamilnadu and Karnataka. Cheap labour and better industrial relations in these provinces are apparently responsible for this shift.¹⁷ Third, there has been little private investment in Kerala in recent years. The Government itself concedes that private investment today amounts to less than 40% of the total investment in the modern organised sector.¹⁸ Very little of the remittances from the Gulf has been invested productively; the bulk of it has been spent on the purchase of land and the construction of houses ¹⁹. These three

¹⁵ Isaac T.M.T: " Class Struggle and Structural Changes: Coir Mat and Matting Industry in Kerala: 1950-1980". Economic and Political Weekly, Review of Political Economy. Vol: XVII. No:31. 1982.

¹⁶ Rajagopalan V: " Handloom Industry in North and South Kerala: A Study of Production and Marketing Structures." Unpublished M Phil thesis. Jawaharlal Nehru University .1986.

¹⁷ In a study in 1981, Oommen M. A, found that the major reason for Kerala entrepreneurs starting industries in Tamilnadu and Karnataka was that labour was not only cheap , but that labour relations were far more harmonious . See Oommen M.A "Mobility of Small Scale Entrepreneurs: a Kerala Experience." Indian Journal of Industrial Relations. Volume: XVII. No: 1. 1981.

A study by the government also found that the paucity of private investment in Kerala can be traced to the negative impressions about the industrial climate in Kerala. See "Report of the High Level Committee on Industry, Trade and Power." Vol: I to Vol III. State Planning Board. Government of Kerala. 1984.

¹⁸ "Towards an Approach to Kerala's Eighth Five Year Plan." State Planning Board. Government of Kerala. Trivandrum. 1989.

¹⁹ The economic boom in the Persian Gulf following the sharp rise in oil prices, induced Keralites to migrate to the region in search of work.By 1987, over 0.30 million Keralites were

factors together have contributed to the perpetuation of an inefficient, technologically backward industrial structure.

A further characteristic is the heavy involvement of the State in industrial development. The State appears to be the principal generator of market demand. We have already noted that over 60% of the investment in the modern organised sector is being made by the State. Further, it is also the main employer in the organised sector as the following table shows:

TABLE II.5

Growth of Employment in the Organised Sector in Kerala. 1970-89.

Year	Public Sector	Index	Private Sector	Index	Organised Sector Total
1970	293,318 (42%)	100	409,562	100	702,880
1980	496,659 (49%)	169	526,459	129	1,023,118
1989	620,254 (56%)	212	486,354	119	1,106,608

Source: "Economic Review". Various issues.

Figures in brackets denote percentage to totals.

estimated to be working in the Gulf. The quantum of annual remittances from these workers has been variously estimated to be between Rs 3150 and Rs 8000 million. Analysis of utilization patterns indicate that in 1986, only 1.6 % of these remittances was invested in business. As against this, 61 % was spent on land and residential buildings.

See " Report of the Survey on the Utilization of Gulf Remittances in Kerala". Bureau of Economics and Statistics. Government of Kerala. Trivandrum. 1987 and Economic Review. 1987. op cit.

The above figures indicate that the private sector has lost over 40,000 jobs in the period 1980-1989. The State has more than compensated for this by creating over 123,500 new jobs. This was achieved both by nationalisation of sick and closed factories and by creation of new public sector companies. In fact, in Kerala, the characteristic form of State intervention in industry has been the formation of State-owned corporations. Kerala, which had only six such corporations in 1960, had by 1990 over hundred such enterprises. This expansion of the State sector, is the result of the interest group process, as we shall show in the following sections.

Given the stagnation in agricultural and industrial growth rates, it is surprising that the tertiary sector has exhibited such dynamism. A more detailed analysis, however, reveals that this can be traced to increased State investment. An intra-sectoral analysis of the tertiary sector given in Table II.6, shows that during the last decade, State investment has contributed substantially to the growth of the sector.

TABLE II.6
Growth Rates in the Tertiary Sector: Kerala. 1980-90

Sector	1980-81	1989-90	Percentage Point Change
Transport, Storage & Communication	10.1	14.2	+4.1
Trade, Hotels & Restaurants	39.4	31.1	-8.3
Banking & Insurance	8.5	15.1	+6.6
Real Estate & Dwellings	9.0	2.8	-6.2
Public Administration	11.2	17.1	+5.9
Other Services	21.8	19.9	-1.9
Total	100.0	100.0	

Source: "Economic Review". 1990.

We note from the above figures that growth rates have been highest in banking & insurance and in public administration, both sectors controlled by the State.

Our analysis so far indicates that the commodity producing sectors of the economy have recorded poor growth

rates. What little growth there has been in the secondary and tertiary sector is largely accounted for by State investment.

The lack of growth in the commodity producing sectors of the economy has eroded incomes. A crude indicator is the stagnation in per capita incomes that we observed in Table II.3. Incomes have increased from an average of Rs 603 per annum in the early seventies to only Rs 615 in the mid eighties;²⁰ population meanwhile has increased from 21.35 million in 1971²¹ to 29.03 million in 1991.²²

An equally grave problem is that the economy's failure to grow has resulted in high and rising rates of unemployment. A survey conducted in 1987, indicates that out of a total workforce of 10.75 million only 6.44 million had full time employment.²³ Of the remaining, about 26% were fully unemployed and the rest had work only occasionally.²⁴ A comparative analysis of figures for 1961 and 1981 indicates that this is a recent phenomenon. In

²⁰ "Economic Review". Various Issues. op cit.

²¹ See " Statistics for Planning: 1982". Bureau of Economics and Statistics. Government of Kerala. Trivandrum. 1982.

²² Census of India.1991. op cit.

²³ See: " Report of the Survey on Unemployment in Kerala. Bureau of Economics and Statistics. Government of Kerala. Trivandrum. 1987.

²⁴ ibid.

1961, only 3% of the Workforce was totally unemployed; by 1981 this had increased to 13.5%.²⁵

From the foregoing analysis, we observe that despite the impressive performance in the social indices of development, the economy as a whole has performed poorly. This has negative implications for the continuation of redistributive policies. Already, the State finds it hard to maintain the fairly equitable delivery systems it has created. Crumbling infrastructure, lack of adequate equipments and medical supplies in government hospitals, poorly maintained schools and an increasingly obsolete University system attest to this fact.²⁶

The State, as we have noted earlier, is the prime agent in stimulating social and economic growth. But the continued ability of the State to sustain this policy is in doubt. During the period 1975-76 to 1990-91, the revenue account of the government was in surplus in five years only. From 1983-84 onwards, the government accounts

²⁵ Prakash B.A: "Unemployment in Kerala. An Analysis of Economic Causes". Working Paper No:231. Centre for Development Studies. Trivandrum. 1989.

²⁶ M.S Valiathan, a prominent cardiologist and health administrator, highlights the current, pitiful status of the health care system in Kerala when he observes :" Hospital conditions in terms of sanitation, drug supply, equipment function and availability of services are a source of daily and serious complaints ----- Even as our health indices sparkle against a grey national background and Kerala's annual expenditure climbs to Rs 130 crores; public dissatisfaction with health services seems to rise to disturbing levels." Quoted in Oommen M.A :" Development Experience, Development Priorities and Fiscal Resources of Kerala". People and Development. Supplement. No:3. April-May 1992. P: 14 & 15.

have not been in surplus in any year.²⁷ Even more disturbing is the fact that there are indications that the government has been dipping into its capital resources to finance its current expenditure.²⁸ The deficit on the current account and the diversion of funds from the capital account, indicates that State policy is still oriented towards current consumption rather than investment for the future. This orientation is, in part, a product of the State's vulnerability to pressure exerted by interest groups within the polity, as will be discussed below.

Successive governments in Kerala have followed largely redistributive policies. This strategy paid rich dividends by way of granting the majority of the population access to basic needs such as food, subsidized housing, primary education and health care. The physical quality of life in Kerala is, as many scholars have noted, far higher than the rest of India.²⁹ These achievements, however, have to be viewed in the context of a stagnant economy, which faces grave problems of eroding real incomes

²⁷ " Kerala Budget in Brief". Issues: 1978-79 and 1990-91. Finance Department. Government of Kerala .Trivandrum.

²⁸ George k: "Kerala's Fiscal Crisis: A Diagnosis." Economic and Political Weekly. Vol:XXV. No: 37. 1990.

²⁹ In the mid Seventies, Morris.D.Morris, developed the Physical Quality of Life Index (PQLI) to measure the physical well-being of people in different countries. Three indicators- infant mortality, life expectancy and basic literacy-, were identified as the indices that reveal most about a people's well-being. On this index, Sweden had the highest rank with 97 points. India was ranked 87th(out of 140 countries) with 43 points. Kerala had 68 points and ranked with such middle income countries as Brazil; and ahead of Turkey and Vietnam. See Jeffrey R. 1992. op cit.

and mounting unemployment. While in the past, the State could ensure income redistribution through transfer payments and public spending, in recent years this ability is increasingly under question.

SECTION II

Political Coalitions and Interest Groups.

In Section I we had outlined the paradoxical nature of Kerala's development experience which is unique among Indian provinces.³⁰ In this section we provide some very tentative hypotheses to explain the strategic policy choices of the State. The presence of ideologically committed left of centre parties account, in part, for many of the redistributive policies of the State. Equally important, due to the exigencies of coalition politics,

³⁰ Kerala's comparatively high quality of life is mainly a function of its exceptional performance in social development. A comparison with other Indian states makes this clear. In 1991, Shiv Kumar using data relating to 1987, attempted to construct a Human Development Index for 17 states in India. The index was based on the Human Development Report of the United Nations Development Programme(UNDP), 1990 and was constructed out of three indices: longevity, literacy and per capita GDP.

The study found that of the 17 states, only four can be categorised as having a medium HDI(ie having an index of more than .5) and they are: Haryana, Maharashtra, Punjab and Kerala, with Kerala having the first rank. A comparative analysis of these states, indicate that whereas Kerala had a per capita income of only Rs 639(1970-71 prices) in 1987, the other three states had incomes averaging over Rs 1000. The study establishes that Kerala's performance is primarily due to its good record in literacy and health care.

See Shiv Kumar A.K: "UNDP's Human Development Index: A Computation for Indian States". Economic and Political Weekly. Vol: XXVI. No:41. 1991.

well organised powerful interest groups have significantly influenced policy outcomes.

The role of the Communist party in Kerala's political economy has been extensively discussed.³¹ Here, we shall merely note that the radical policies espoused and implemented by the party resulted in the political mobilisation of many underprivileged groups. Consequently, non-communist parties were forced to follow their lead and initiate similar redistributive policies. Land reforms, minimum wages legislation, social security measures such as pensions and unemployment assistance were implemented by both Communist and Congress led governments. Political mobilisation was also facilitated by the activities of communal political parties such as the Indian Union Muslim League and the Christian dominated Kerala Congress and caste based organisations such as the Nair Service Society (NSS) and the Sri Narayana Dharma Paripalana Yogam (SNDP). The latter run educational institutions, hospitals and charitable organisations. In recent years the two organisations have attempted to increase their political influence more directly by launching their own parties- the National Democratic Party by the NSS and the Socialist

³¹ See among others: (1) Nampoodiripad EMS: Kerala Yesterday, Today and Tomorrow. Calcutta: National Book Agency. 1968. (2) Menon A: What happened in Kerala :Review of 30 Months of Nampoodiripad Government. New Delhi: CPI. 1969. (3) Nossiter T.J. 1982 op cit and Marxist State Governments in India: Politics, Economics and society. London: Pinter. 1988.

For an exposition on the ability of left of centre regimes to assure basic minimum needs even at very low per capita incomes, See Kohli A. 1987. op cit.

Republican Party by the SNDP.³² Ideological biases, the demands of organised groups and the awareness of a highly literate populace, have all contributed to increased demands on the State for more welfare and redistributive measures. In the context of Kerala's coalition politics, it has become difficult for the State or rather the rival centre-right/centre-left political elites to withstand these demands.

Coalition Politics in Kerala.

Kerala has often been affected by political instability. Between 1956, when the state of Kerala came into being and 1991, there were sixteen elected governments and eight spells of direct rule by the federal government.³³ The instability was especially acute in the Sixties, when between 1960 and 1970 there were four general elections and seven changes of government.³⁴

It will take us too far afield to offer any detailed analysis for Kerala's unstable politics.³⁵ The destruction of the party system is a major factor. Since 1957, when the Communists came to power, no party has been

³² For an analysis of the role of caste and religion based political parties in Kerala, see Tharakan M.P.K : " Behaviour of Communal Votes in Kerala Assembly Elections 1987". Religion and Society. Vol: XXXV. No: 4. 1988.

³³ "Assembly Elections Since 1951". Department of Public Relations. Government of Kerala. No Date.

³⁴ ibid.

³⁵ See Nossiter: T.J .1982 and 1988 op cit, for a detailed analysis of the coalition politics of Kerala.

able to form a government on its own. The two major parties in Kerala- the Communist Party of India and the Indian National Congress, had split in the Sixties. The split in the Communist party resulted in the formation of two parties- the Communist party (Marxist) (CPM) and the Communist Party of India(CPI). The Congress party suffered a series of splits in Kerala during the last three decades. The splits within the major parties eroded their ability to come to power on their own. Henceforth, politics in Kerala revolved round rival coalitions. These coalitions, however were not ideologically cohesive, nor did the partners in the coalition remain constant as the following table reveals.:

TABLE II.7

Elections and Political Coalitions in Kerala. 1960-82.

Year	Composition of Rival Fronts	Remarks
1960	Congress, PSP, ML Versus Undivided Communist Party	Congress front won
1965	Congress Versus CPM, SSP, ML Versus CPI, RSP, KC	No front could win majority. Congress reduced from 63 in 1960 to 36.
1967	CPM, CPI, ML, RSP, SSP, KSP, KTP Versus Congress	CPM front won. Congress seats further reduced to 9
1970	CPI, Congress, ML, KC and other small parties Versus CPM and SSP	CPI headed front won
1977	CPI, ML, KC and Congress Versus CPM and Janatha	CPI headed front won

Year	Composition of Rival Fronts	Remarks
1980	Congress(I), IUML, KC(J) and others Versus CPM, CPI, RSP, KC(M), AIML and Congress(U)	CPM front won
1982	Congress(I), IUML, KC(M), KC(J) and others Versus CPM, CPI, RSP, AIML, Congress(S)	Congress front won

Note: Since 1982, the composition of the rival fronts has not altered significantly.

Note: (1):PSP:Praja Socialist Party. (2) ML: Muslim League. (3) IUML: Indian Union Muslim League. (4)AIML: All India Muslim League. (5)SSP:Samyuktha Socialist Party. (6)RSP:Revolutionary Socialist Party. (7) KC: Kerala Congress. (8)KC(J): Kerala Congress- Joseph Group. (9)KC(M): Kerala Congress- Mani Group. (10) Congress (U): Congress- Urs group. (11) Congress(I):Congress-Indira. (12)Congress(S): Congress- socialist.

Source: "Assembly Elections Since 1951". Department of Public Relations. Government of Kerala. No Date.

The above table gives a number of clues to the nature of the polity in Kerala. First, as we have indicated above, political parties in Kerala appear to be constantly splitting. The Congress first split in the mid sixties, giving birth to the Kerala Congress. Then, reflecting national trends, it split again into the

Congress(I), Congress(U) and the Congress(S). The Kerala Congress split into the KC(J) and KC(M); and the Muslim League into AIML and IUML.³⁶

Second, we note that the constituent units of the rival fronts, were constantly changing. The Muslim League was allied with the CPM in 1967, but switched sides in 1970. The CPI was allied with the CPM in 1967, with the Congress in 1970 and 77 and again with the CPM from 1980 onwards. The different factions of the Kerala Congress, as we can observe from the table, constantly shifted their allegiances. A third point of interest is that various political groups bear their leader's name- Joseph group, Mani group, Urs group and so on. This would indicate that parties often disintegrate not on ideological grounds, but due to the personal compulsions of individual leaders. This has significant implications for policy formulation as small groups often decide the fate of governments.

Fourth, we observe that whenever the major parties have fought alone, they have lost heavily. The CPM which won 52 seats in 1967 when it was at the head of a formidable coalition was reduced to just 17 seats in 1977 when it was allied only to the Janatha. Similarly, Congress, which secured only 9 seats in 1967 when it stood

³⁶ On the eve of the 1987 elections, the AIML, ended its association with the Left Democratic Front and merged with the IUML. The united party, also known as the Indian Union Muslim League, is mainly concentrated in the Muslim dominated Malappuram district. Since the party invariably wins the majority of the seats from the district, it plays a pivotal role in making or unmaking governments in Kerala.

alone, won 38 seats in 1977 when it was associated with a strong coalition.

Fifth, rival coalitions are evenly matched electorally. Both in the 1982 and 1987 elections, the difference between the rival fronts was about 1%,³⁷ though in 1982, the Congress-led front and in 1987, the CPM-led front formed the government respectively.

To summarize; the disintegration of parties has ushered in an era of coalition politics in Kerala. The rival fronts are composed of small parties who constantly switch sides. Since the fronts are evenly matched, shifts in political alliances can be electorally significant.

These observations imply that in the context of Kerala's fractured polity, even the major parties need to court small ideologically uncommitted parties for gaining and maintaining power.³⁸ This makes the major parties very vulnerable to political blackmail by parties with small, but significant captive vote banks. The run up to the general elections are often characterised by intense bargaining for seats; and parties do not hesitate to switch sides to enhance their prospects.³⁹

This "bazaar approach to politics",⁴⁰ as Nossiter characterises it, has obvious policy implications. When both small and large parties are subject to shifting

³⁷ "Assembly Elections Since 1951". op cit.

³⁸ See Nossiter T.J. 1982. op cit.

³⁹ ibid

⁴⁰ ibid.

political alliances, and when the difference between defeat and victory is so tenuous, organised and politically well connected groups can successfully influence policy outcomes.

Interest Groups and State Policy.

Three interest groups are significant for our analysis- trade unions, Government employees and Commercial farmers. The significance of trade unions in Kerala's polity and society cannot be overemphasised. Trade unions in industries such as cashew and coir were in existence prior to independence. Agricultural labour was organised as early as 1939.⁴¹ The extent of trade union penetration of industry can be judged by the fact that by 1958, about 81% of the workforce in the organised sector belonged to a trade union.⁴² Paralleling the growth in membership is the increase in the number of trade unions which increased from 1213 in 1956 to a current figure of over 7800 unions.⁴³ Trade unions are not confined to agriculture and industry. The service sector is also highly organised with unions for NGOS, (non gazetted officers of

⁴¹ Alexander K.C : " Emergence of Peasant Organisations in South India ". Economic and Political Weekly. Review of Agriculture. Vol:XV. No: 26. 1980.

⁴² Thampy M.M : "Wage-Cost and Kerala's Industrial Stagnation: Study of Organised Small-Scale Sector". Economic and Political Weekly. Vol: XXV. No:37.1990.

⁴³ ibid.

the government) bank employees, and school and university teachers.

The explosion in the number and variety of unions can be partly explained by the symbiotic relationship between political parties and trade unions. Trade unions in Kerala, as in the rest of India, are organised by political parties. CITU (Centre for Indian Trade Unions) is controlled by the CPM, the INTUC (Indian National Trade Union Congress) by the Congress, the AITUC (All India Trade Union Congress) by the CPI and so on. These unions are of enormous political value to political parties. First, they assist in the mobilisation of unorganised groups which are otherwise difficult to reach. The successful organisation of agricultural workers in Alleppey district is a case in point. The undivided Communist party organised the Travancore Agricultural Labourers' Union in 1939. In Alleppey district, the Union secured for agricultural workers several privileges, including minimum hours of work and higher wages. Scholars have observed that the growth of the Communist party in Alleppey district owes a great deal to the activities of the Travancore Agricultural Labourers' Union.⁴⁴

Second, trade unions are often employed as shock troops to harass the government. Unions are often instigated to make extravagant wage demands, declare strikes and generally create industrial unrest with a view to embarrassing the government. Since the State is the main

⁴⁴ Alexander. K.C. 1980. op cit.

employer of organised labour, these activities are in effect a form of economic warfare on the government. Further, at election time each party employs its activists for fund raising and canvassing votes.

Third, trade unions are powerful instruments for enhancing the power and prestige of individual politicians. Few politicians in Kerala have succeeded without being associated with a number of unions. The more unions that an individual has under his control, the greater is his bargaining power within his party.⁴⁵ The Unions, in fact, are of such vital importance that politicians continue to hold office in them, even while they serve as ministers in the State cabinet.⁴⁶

Organised labour benefits equally from this arrangement. State machinery is often used to further the interests of the unions associated with the ruling parties. State intervention ranges from sweetheart deals with friendly unions in State owned corporations to police harassment of rival unions. Individual union leaders also benefit by the association with political parties. First, it is an avenue to elective office. Second, leaders are able to dispense patronage by virtue of their proximity to ministers and legislators.

⁴⁵ Nossiter cites the example of a RSP legislator- R S Unni, who held office simultaneously in about 21 trade unions. See Nossiter T J : 1982. op cit.

⁴⁶ In one celebrated case, the Minister was holding the portfolio of Transport, while he continued to be the President of the driver's union in the State owned Kerala State Road Transport Corporation. The potential for conflict of interest is obvious.

The confluence of interests between trade union leaders and politicians endow unions with enormous strategic power. Every political party is susceptible to the pressure exerted by the unions. This pressure is translated into favourable policies to preserve and further the special interests of the unions within the economy and the polity.

The second major interest group is the officers of the provincial and All India services. The former generally occupies the lower and middle tiers of administration. The career prospects of the provincial civil servants are closely tied with the growth of their department, as there is very little lateral movement between departments. There is intense competition between departments for increased pay and promotion opportunities and for the creation of new posts. In these conflicts rival officer's associations enlist the assistance of powerful political leaders to present their case to the ministers concerned. The ministers are often compelled to submit to the twin pressures of officers' associations and party leaders, as the reputation of individual ministers can be undermined by a hostile bureaucracy.

The State, as we have noted in Section I, intervenes massively in the economy. State agencies distribute subsidies, agricultural inputs at below market rates, issues licences for scarce industrial raw materials, sanction credit on easy terms, and oversee a massive public works programme. In addition, the State directly owns a

large number of companies. State officials, especially at the district and sub-district levels, have a pivotal role in the allocation of the States' resources. These resources can be deployed by the government in power for generating political capital. This entails the acquiescence, if not the active collaboration of State officials. As in the case of trade unions, there is a symbiotic relationship between politicians and State officials; the former trading patronage in return for channelling State resources to followers and allies. This, as can be expected leads to charges and counter charges of favouritism and political corruption.⁴⁷

The All-India officers (The Indian Administrative Service (IAS), The Indian Police Service(IPS) and the Indian Forest Service(IFS)) are distinct from the provincial service in that their terms of employment and salary structures are determined by the federal government, though they serve under the provincial governments. So theoretically, they have considerable autonomy vis a vis political leaders. While these officers have their own associations, the influence they wield has

⁴⁷ The press in Kerala regularly exposes the nexus between State officials and political parties, and how this nexus has operated to the detriment of the State's larger interests. The Malayala Manorama recently carried a series of articles on the activities of the Co-operative department . (The Malayala Manorama, 3rd and 5th, October 1991.) The paper alleges that officials of the department were used by the Government to take over by fraud and force the organisations controlled by rival parties. Identification of beneficiaries in poverty alleviation programmes, granting of pensions to agricultural workers and allocation of funds for rural road works are a few of the instances in which officials are alleged to have acted in a very partisan manner.

less to do with their capacity for joint action and more to do with their strategic roles. The IAS for instance, occupy key positions in the administration as District Collectors and Secretaries to the Government. In such posts they are in a position to significantly influence policy outcomes.

The career pattern and ethos of the All India Services, however do have some negative implications for State policy. First, the average tenure of an officer in each post is less than two years.⁴⁸ Second, postings are seldom related to their area of expertise or experience. A typical IAS officer in the course of his career may occupy such varied and totally unrelated posts, as District Magistrate, Director of Survey and Land Records, Director of Agriculture, Managing Director of a cement corporation, Chairman of the electricity board and Secretary to the Government in the taxes department. The briefness of each tenure implies that officers can seldom be evaluated by any objective criteria. More often than not, the reputation of an individual officer is made by his ability to market himself successfully. This would entail programmes and projects that yield quick results and maximum publicity. Political leaders are under a similar time constraint. Given the mutuality of interests between political leaders and senior bureaucrats, public policy tends to generate high profile, resource demanding and State controlled

⁴⁸ Nossiter T.J notes that the average IAS officer in Kerala spent only 14 months in each posting during the period 1957-1974. See Nossiter T.J. 1982. op cit.

projects that may yield immediate political gains, but could have long term negative economic implications.

A number of observers have commented on the existence of a rich farmer's lobby in Kerala. ⁴⁹ It is argued that this lobby has successfully penetrated even the CPM and consequentially agrarian policy in Kerala is said to be biased heavily in favour of rich peasants to the detriment of the agrarian poor. We feel however that a distinction merely between rich and poor peasants does not fully explain the complexity of policy formulation in agriculture. We shall argue below that characteristics of the peasantry unique to Kerala have differentially effected the ability of various sections of the peasantry to influence policy outcomes.

First, we observe that even among agrarian households, actual cultivators formed only a minority. Out of the 2.83 million agrarian households in Kerala in 1966-67 only 0.90 million (32%) had cultivation as their primary activity. Of the rest, about 1 million were agricultural labourer households and the rest were engaged in other activities.⁵⁰ Nearly 70% of the agrarian households in Kerala in the late sixties, did not have cultivation as their major source of income. With further fragmentation of existing holdings rapidly taking place,

⁴⁹ Krishnaji N, Mencher J, Nossiter T. J, Raj K.N among others.

⁵⁰ See Chapter III, "Land Reforms Survey:Kerala.1966-67: Report." Bureau of Economics and Statistics, Government of Kerala. Quoted in "Poverty Unemployment and Development policy". Centre for Development Studies. Trivandrum. 1975.

the dependence of agrarian households on non-farm incomes has increased in recent years. This non-dependence on agricultural incomes reduces farmers' incentives to organise themselves for collective action.

Second, the average size of holdings in Kerala is very small. In 1985-86, nearly 97% of the operational holdings were below one hectare.⁵¹ The small size of the holdings and its geographical dispersal all over the province reduces the ability of the farmers in general to organise themselves into a powerful lobby.

Here, however, we must make a distinction between producers of food crops and producers of non-food crops. The former in Kerala produce largely for home consumption, while the latter produces for the market.⁵² Farmers with marketable surplus have more to gain and lose from favourable or unfavourable policies. Hence, they have greater incentive to organise themselves with a view to influence policy outcomes. But incentive, though a necessary condition, is not a sufficient condition for collective action by farmers. For successful collective action to emerge among latent groups such as farmers, there

⁵¹ See "Statistics for Planning ". State Planning Board. Government of Kerala. 1988.

⁵² In a study of market participation by small farmers, Ninan found that while small rice farmers, marketed less than 7% of their paddy production, producers of commercial crops such as pepper, arecnut etc marketed almost their entire production. See Ninan K N :"Small Farmers and Commodity Market. An Analysis of Market Participation and Price Discrimination." Economic and Political Weekly. Review of Agriculture. Vol: XXIII. Nos:52 & 53. 1988.

should be individuals or organisations capable of absorbing the costs involved in mobilising them.

It is more rational to expect such an organisation or individual emerging in the commercial crop sector rather than among food producers. The production structure of some of the more important commercial crops facilitates the emergence of producer lobbies. We shall see in the next section that the existence of large rubber plantations and the geographical concentration of rubber producers have enabled them to successfully lobby both the federal and provincial governments.

The favourable policy outcomes observed by many scholars - the exemption of rubber plantations from the purview of the Kerala Land Reforms Act, the low and declining rates of agricultural income tax, the generous price support and subsidized input supply systems - have largely benefited the producers of commercial crops. Food producers on the other hand, as we shall see in the next section, are vulnerable to adverse policies from the State.

In this section, we have argued that in the context of Kerala's unstable coalition politics, well organised groups significantly influence policy outcomes. We would argue that the traditional, labour intensive character of Kerala's industrial structure is the result of trade union opposition to any form of mechanisation in the traditional industries. Further, trade unions have created an unfavourable industrial profile for Kerala with militant

tactics , that involve not only legal instruments such as strikes, but also actions such as "gherao"(illegal confinement) of management, and "ghost money" (demand for wages even when no work has been done).These tactics and the passive acquiescence of the State to them, have contributed to the flight of industries from Kerala.⁵³

We had observed earlier that despite the shrinking revenues, the State has continued to expand its intervention in the economy.In 1989 for instance, it nationalised a large number of cashew factories, largely on the grounds that the private owners were not providing adequate work to workers in Kerala and were diverting their activities to factories outside the province. We shall see in the next section that such interventions despite the social costs involved are dictated by political compulsions.

Pressure from government employees has resulted in the State itself consuming an increasing share of the resources it generates. Extension of federal pay scales to government employees and university teachers, payment of bonus to State employees and increased pension benefits are some of the concessions, that associations of teachers and State employees, have wrested from the State in recent years. To pay for this, the State has had to cut its expenditure on investment and has had to borrow heavily. While the revenue expenditure on agriculture increased only from 4.63% in 1960-61 to 5.68% in 1990-91,

⁵³ See Oommen M.A .1981. op cit.

expenditure on pensions shot up from 2.8% to 10.13%. Debt servicing during the same period more than doubled from 6% to 12.20%,⁵⁴ indicating that the government's increased current consumption was being financed not through increased revenues, but through borrowing.

SECTION III

Interest Groups and Agrarian Policy.

The central argument that we advance in this section is that farmers in Kerala, experience negative or positive polices depending upon their location within the political economy of the province. Farmers producing commodities consumed within Kerala, generally tend to experience greater negative policies than farmers producing for export and upcountry markets. The former produce staples such as paddy while the latter produce commodities such as pepper, tea, coffee, cardamom and rubber which are exported out of the province.

The dominant interest groups within the polity, such as the trade unions and government employees, are, as consumers, interested in keeping down the price of wage goods. The State being the largest employer in the province has a similar aim. Moreover, in a food deficit province, the success of a government would be largely judged by its ability to ensure supplies of essential articles at reasonable prices.

⁵⁴ " Kerala Budget in Brief ". Various Issues. op cit.
Government of Kerala.

A comparison with other Indian provinces will better illustrate our argument. In Punjab, Harayana and Western Utter Pradesh, farmers produce wheat, rice and other food crops mainly for the market. The politics in these surplus provinces therefore revolve around issues such as the support price for wheat, subsidies for irrigation and fertiliser and the procurement policy of the Food Corporation of India. It is also no accident that some of the most powerful farmers organisations in India have emerged in these states. While in these provinces the producers are well organised, in Kerala, consumers through the interest groups we have identified, are better able to influence policy. Consequentially, producers of wage goods in Kerala often experience adverse policies such as price controls and monopoly procurement. However, State policy towards wage goods such as paddy and milk often appear contradictory: positive policies such as subsidies and investment to increase productivity, coexisting with disincentives such as price controls. The rationality of such policies for the State becomes apparent when we view these policies as attempts by the State to maximise supplies rather than as efforts to increase farm incomes.

Non food-producers experience negative or positive policies depending upon whether the produce is required for domestic industry or not. Raw cashew nuts, for instance, are consumed by both private and State factories in Kerala. Rubber, on the other hand, does not have a significant market within the province. The different market profiles of these two commodities, we shall show,

translates into negative policies for one and positive policies for the other.

Policy outcomes are also determined by the degree of organisation among the primary producers. We had argued that commercial producers have greater incentive to organise themselves. Further, the production of crops such as rubber is concentrated in a geographically compact area. This facilitates the mobilisation of producers by political parties. Food producers, be it paddy or milk, however suffer from the double handicap of producing commodities required for consumption by the dominant interest groups and being scattered and unorganised.

We shall illustrate the above arguments through an analysis of State policy in respect of paddy, milk, cashew and rubber.

Paddy

Since the mid seventies paddy production in Kerala has been steadily declining. Table II.8 shows that the decline is primarily due to the fall in the area under paddy.

Table II.8

Trends in Paddy Production in Kerala: 1960-90.

Year	Area (000 hectares)	Production (000 tonnes)	Productivity KEG/hectares
1960-61	779	1068	1371
1970-71	875	1298	1483
1974-75	881	1334	1513
1980-81	802	1274	1589
1989-90	583	1141	1956

Source: (1) Suseelan P: "Problems and prospects of Rice in Kerala". Paper presented in the Workshop on Agricultural Development on 6/10/1988 at Trivandrum. (2) "Economic Review". Various Issues. State Planning Board. Government of Kerala.

The sharp drop in area and production has been extensively debated.⁵⁵ High wage rates and relatively low prices for paddy, have substantially contributed to a shift away from paddy to more remunerative crops such as coconuts. Between 1970-71 and 1989-90, wage costs in the paddy sector increased by 56% at constant prices whereas paddy prices decreased by 28% during the same period.⁵⁶ The increase in wage costs was the result of collective bargaining by agricultural workers' unions especially in the chief paddy producing areas of Kuttanad and Palghat. The double impact of high wage costs and low paddy prices, coupled with relatively better price realisation from commercial crops, resulted in the shift away from paddy.

These market forces have been assisted by the policies of the State. It is true that the State has invested considerable resources to increase paddy production in various special programmes such as the Intensive Paddy Development Programme, Intensive Agricultural Development Programme and the High Yielding Varieties Programme. Also, the bulk of the resources invested in irrigation seems to have been targeted at paddy. However it is doubtful whether these policies have had any substantial impact. A critical analysis of the irrigation projects reveals that despite the vast sums of

⁵⁵ See Kannan K P and Pushpangadan K (1989). op cit; and George P S and Mukherjee C : "Rice Economy of Kerala: A Disaggregate Analysis of Performance". Working Paper No: 213. Centre for Development Studies. Trivandrum. 1986.

⁵⁶ See " Statistics for Planning". 1988. op cit and "Economic Review". Various Issues. op cit.

money expended on irrigation, only about 23%⁵⁷ of the irrigation potential of Kerala has been tapped. Further the majority of these projects are marked by cost overruns and delays.⁵⁸ There has been many allegations in the press that these projects benefit government officials and contractors more than farmers. The continued preference of the State for major irrigation projects despite the cost effectiveness of minor irrigation lends credibility to these allegations.⁵⁹

The inefficiency of the positive policies were compounded by negative policies of price restrictions and monopoly procurement. In 1966, the State issued the Kerala Rice and Paddy(Procurement by Levy) Order (RPO), under the Essential Commodities Act. The aim of this order was to coerce rice farmers to sell their produce to the State at a price determined by it. The levy rates were fixed very high, ranging from 80% in the highest to 10% in the lowest

⁵⁷ See Prakash B A : " Agricultural Development of Kerala: From 1800 to 1980 AD. A Survey of Studies." Working Paper No: 220. Centre for Development Studies. Trivandrum. 1987.

⁵⁸ Cost escalation in irrigation projects is reported to be the highest in Kerala among all the Indian provinces. In the case of many schemes, the original estimate has gone up by more than twenty times. For instance, the Kallada project's estimate has gone up from Rs 13.21 million when it was started in 1961 to Rs 260 million in 1988. Kallada, incidentally is under construction even after thirty years. In fact out of the 28 major irrigation systems in Kerala, only 10 have been commissioned. The remaining are still in various stages of construction for periods varying from 12 to 30 years. See Salim A M and Nair Gopinathan: "Irrigation and Water Management in Kerala". Paper presented in the Workshop on Agricultural Development on 6/10/1988 at Trivandrum.

⁵⁹ For a discussion on the comparative advantages of major and minor irrigation, See Kannan K P and Pushpangadan K .1989. op cit.

size classes.⁶⁰ These estimates were further revised upward in 1969 with the result that for a number of farmers the amount of levy exceeded their marketable surplus.⁶¹ Along with the RPO, the State also enacted the Kerala Land Utilisation Order in 1967,(KLU) which forbade farmers to cultivate with cash crops any land that had been cultivated with food crops. Taken together, the RPO and the KLU reveal the bias and intentions of the State very clearly. The State was primarily interested in securing food supplies; therefore it passed the RPO. When farmers shifted their cropping pattern, the State countered this move through the KLU order, forcing the farmers in effect, through legislation, to continue uneconomic farming operations.

The Kerala Agricultural Worker's Bill of 1972, was another piece of legislation, which, if implemented in its entirety, would have had grave implications for cultivators. According to the provisions of the Bill, all farmers having holdings above one hectare, would have to pay a "prescribed wage". This wage would be above the minimum wage and could be well above the prevailing market rates.⁶² Other provisions of the bill included a welfare fund for workers, a commitment by the farmers to give preference to workers who had earlier worked on the farm and a formal mechanism for settling

⁶⁰ See Panikulangara V : "Paddy Procurement Through Producer Levy: A Case Study of Kerala". Social Scientist. Vol:IV. No: 8. 1976.

⁶¹ ibid

⁶² See Alexander. K.C .1980. op cit.

labour disputes. These provisions were designed to provide seasonal agricultural workers, the same protection that industrial labour enjoyed. The bill was only partially implemented as the inherent difficulty of extending industrial labour legislation to agriculture soon became apparent.⁶³

State policies towards paddy cultivation therefore reveals a blend of positive policies designed to increase production and negative policies that destroy the incentive for production. These apparently contradictory policies are however rational for the dominant groups which dictate State policy. They were primarily interested in maximising supplies to the consumer at the minimum price. Hence the simultaneous attempts to increase production and secure it for public distribution.

MILK

OF was launched in Kerala to stimulate the dairy economy. However, even in the pre-OF period, the livestock sector in Kerala has shown considerable dynamism. The growth in milk production has been very remarkable as the following table shows:

⁶³ Discussions with officials of the Department of Agriculture, Government of Kerala. June. 1991.

TABLE II.9
Trends in Milk Production in Kerala: 1964-90.
In millions of tonnes.

Year	Production	Index
1964-65	0.221	100
1977-78	0.778	352
1980-81	0.908	411
1984-85	1.220	552
1989-90	1.600	724

Source: "Livestock Census". 1987 and "Economic Review".
1990.

The dynamism of this sector has been due to a fortuitous mix of favourable market trends and positive State policies. The bovine economy of Kerala has undergone significant structural change during the period 1964-90. A number of studies have documented the increased preference for milch cattle.⁶⁴ Between 1966 and 1987 the percentage of milch cattle in the cattle population increased from 68% to 85%.⁶⁵ This shift has been attributed to: (1) decline in the cropped area under paddy, (2) increased demand for milk

⁶⁴ Nair N K: "Bovine Holdings in Kerala: An Analysis of Factors Governing Demand and Supply." Phd Thesis. University of Kerala. Trivandrum. 1981.

⁶⁵ ibid and "Report on Fourteenth Quinquennial Livestock Census-1987 ". Issued by the State Livestock Census Officer. Department of Animal Husbandry. Government of Kerala. Trivandrum. 1987.

and (3) State policies that increased the productivity of milch cattle.

The decline in the area under paddy and the extensive subdivision of existing holdings have both contributed to the reduced preference for holding work bullocks.⁶⁶ Farmers find it uneconomical to keep bullocks in these circumstances. Demand factors have also influenced the change in the composition of the cattle population. Several estimates have shown that during the last two decades, the demand for milk and milk products has been outstripping supply.⁶⁷ This demand gap is attributed both to increased purchasing power, following the Gulf boom and the relative increase in the price of milk substitutes(sic) such as meat and fish.⁶⁸

Supply factors have also contributed to the increased preference of farmers for holding milch cattle. For most of the seventies and early eighties, the movement of relative prices was favourable to milk. K.N Nair and T.S Nair have indicated that relative to milk prices, feed prices have been increasing at a slower pace during the

⁶⁶ Nair K.N .1981. op cit.

⁶⁷ See Nair T.S : "Cross Breeding Technology and Dairy Development. The Kerala Experience." Unpublished M Phil Thesis. Jawharlal Nehru University. New Delhi. 1988.

⁶⁸ Nair K.N argues that for most of the seventies, the price of milk substitutes was accelerating faster than that of milk. Consequentially, the transfer of expenditure from milk substitutes has contributed to the increased demand for milk. See Nair K N, 1981. op cit.

seventies.⁶⁹ Since feed costs constitute more than 70% of the cost of production of milk, low feed prices have contributed to make dairying profitable.

A more significant factor is the increased productivity of milch cattle. Though milk yields are still poor by international standards, productivity has been substantially increased during the last two decades. Data collected through the integrated sample surveys indicate that the average yield of a cow in milk has nearly trebled from 1.11 litres in 1964-65 to 2.968 in 1984-85.⁷⁰ Taken in conjunction with increased demand and relatively lower feed costs, productivity increases have substantially increased the profitability of the dairy industry.

The jump in productivity can be traced directly to the policies initiated by the State over the last three decades. For analytical purposes State policies in the dairy sector can be broadly divided into: policies designed to increase productivity of cattle through application of better technology; and State intervention in marketing the milk produced by the farmers. Here, we shall discuss the former, reserving the latter for discussion in the next chapter.

The primary focus of State policy was cross-breeding technology. Kerala does not possess any indigenous high quality milch cattle. Hence, the Government sought to

⁶⁹ See Nair K.N 1981 and Nair T.S, 1988. op cit.

⁷⁰ "Report on Fourteenth Quinquennial Livestock Census-1987". 1987. op cit.

increase the genetic potential of cattle through cross-breeding with exotic stock. Initially, the Government merely adopted the federal government's policies such as the Key Village Scheme and the Integrated Cattle Development Project (ICDP). Through the Key Village Scheme, the government attempted to increase the productivity of both draught and milch cattle in selected villages. ICDP, however, was qualitatively different. It sought to develop dairying in the hinterlands of urban centres through an integrated package of incentives and technical assistance. As such, it was a replication of the Green Revolution strategy⁷¹ and the forerunner of Operation Flood.

Along with ICDP, Kerala initiated an ambitious programme to evolve a new breed of milch cattle to suit Kerala's agro-economic conditions. This was the Indo-Swiss Project- a joint effort of the Government of Switzerland and the Government of Kerala. The programme involved the setting up of bull stations for production of frozen semen and Artificial Insemination (AI) centres for performing AI. A large number of inseminators were also trained in the early seventies to deliver AI services in the farm itself. This last scheme, enormously increased the coverage of the cross-breeding programme in Kerala.

⁷¹ The Green Revolution refers to the dramatic increase in food production in the Seventies. The food shortages of the Sixties, encouraged the Government of India to evolve a new programme to boost food production. The programme essentially consisted of the supply of an integrated package of inputs- fertilizers, high yielding varieties of seeds and credit on easy terms-, to areas which had good irrigation potential. The strategy was successful in boosting wheat production; but was largely confined to Punjab, Haryana and Western Uttar Pradesh.

The government's efforts contributed to the rapid diffusion of cross- breeding technology in Kerala. Official statistics on cross-breeding are available only from the 1977 livestock census onwards; but indirect estimates made by K.N Nair indicate that in the early seventies the cross- bred cattle population in Kerala was only about 10%.⁷² By 1977, however, this had increased to 45%,⁷³ though in the eighties the diffusion of the technology has tended to be slow.⁷⁴ Policies for up-grading the milch stock were supplemented by an extensive health care system. The number of veterinary centres increased from only 147 in 1960-61 to over 1500 institutions by 1990.⁷⁵

The foregoing analysis indicates that the dairy sector's impressive performance was the result of State policies moving in tandem with market trends. These positive policies would at first appear to negate our argument that interest groups within the polity have biased policy formulation against food producers. A deeper analysis, however, reveals the same mix of positive and negative policies perceived in the case of paddy producers. The ISPK, ICDP, the health care system and the AI programme

⁷² Nair K N 1981. op cit

⁷³ "Report on Fourteenth Quinquennial Livestock Census - 1987". 1987. op cit.

⁷⁴ Currently, only 49.7 % of the cattle population is crossbred. "Annual Report- 1989-90". The Kerala Livestock Development Board. Trivandrum.1991.

⁷⁵ ibid.

are all positive contributions to the development of the dairy sector. The government, however, has initiated policies inimical to the long-term interests of dairy farmers, such as price controls, State monopoly of processing facilities, licensing restrictions and the destruction of the autonomy of the dairy co-operatives.

The logic of these contradictory policies become apparent, once we understand the priorities of the State. The poor quality of the indigenous stock and the relatively high demographic pressure meant that in the sixties, milk availability was low and prices were high. A comparison with the rest of India is revealing. The per capita monthly consumption of milk in Kerala in 1961-62 was only 0.027 Keg as against the All India average of 0.065 Keg. The unit cost of milk protein, however, was Rs 21.45 per Keg in Kerala compared to the All India average of Rs 13.06 per Keg.⁷⁶

The above figures show that the consumption of milk in Kerala was less than half of the rest of India, while price was higher by 64% in the state. The availability and price of milk was a sensitive issue for the government, as along with rice, it was a barometer of the government's ability to maintain essential supplies at reasonable prices. Besides, the dominant groups within Kerala, be they trade unions, government employees, or the

⁷⁶ See Nair K N. 1981. op cit.

political elites, were all consumers interested in the plentiful availability of cheap milk.

Though the dairy development policies were aimed at increasing farm productivity, increased urban supplies were a high priority. This is clear from the choice of policy instruments such as ICDP, the primary purpose of which "was to increase the production of milk to feed the public sector dairy plants in the main urban centres."⁷⁷ The first ICDP in Kerala was started at Alwaye in 1969. It is located in the industrial heartland of Kerala, and as such would appear to be inappropriate for an intensive dairy project. But, when we note that Alwaye is proximate to the province's biggest city- Cochin, where a public sector dairy was being under utilised for want of milk, the rationale for starting an ICDP at Alwaye becomes clear. Thus, what at first sight appeared to be an agricultural development project to benefit farmers, turns out in reality to be a scheme to augment urban milk supplies.

The rapid diffusion of cross-breeding technology in Kerala has a similar history of dual objectives. The technology, though available in Kerala from the early sixties, became popular only in the early seventies, when the Government launched a massive AI programme. This programme was actually started as an

⁷⁷ George P S and Nair K. N : Livestock Economy of Kerala. Centre for Development Studies. Trivandrum. 1990

employment generation programme, as its official name "Special Employment Programme" indicates.

The government calculated that by stimulating the dairy sector, Kerala's chronic unemployment problem could to some extent be ameliorated. The Chief Minister, C.Achutha Menon, in a speech in February 1971, indicated that the Government was thinking of establishing dairy colonies, with a view to provide "gainful employment to educated youth".⁷⁸ While this particular scheme did not take off, the Special Employment Programme was launched with a similar objective. According to this programme, over 1500 youth would be trained in AI methods and put in panchayats so as to provide AI service to farmers on their doorsteps.

The perception of the political elites that the programme was primarily directed at employment generation rather than increasing farm productivity is evident from an analysis of the Legislative Assembly questions on the programme. Of a number of questions asked on the subject in the Kerala Assembly in 1973, the year when the programme was really started, not one question referred to the impact the programme would have on farmers.⁷⁹ All questions referred either to the criteria

⁷⁸ Speech by Achutha Menon, Chief Minister of Kerala, February, 1971. Reported in: The Kerala Co-operative Journal. February. 1971.

⁷⁹ "Proceedings of the Kerala Legislative Assembly". Seventh and Eight Sessions-1973. Legislative Secretariat. Trivandrum.

for the selection of the youth to be employed in the project or the panchayats where it would be implemented.

Our analysis of policy formulation with respect to rice and milk revealed that the State's first priority was not increased farm productivity or higher farm incomes. Rather, these were the by-products of policies designed to solve problems of higher urgency such as ensuring urban supplies or generating employment. These were the priorities of the dominant groups and it is these priorities that were translated into policies.

We have argued that the interests of the dominant groups for cheap wage goods have biased agricultural policy against food producers. This does not imply that the producers of all commercial crops generally experience positive policies. We shall argue that commercial crop producers also experience negative or positive policies depending on whether their produce is required for consumption by the dominant groups. A comparative analysis of policies in the cashew and rubber sectors will illustrate our argument.

CASHEW

We observe from Table II.10 that between 1980 and 1990, Kerala lost nearly 14% of the area under cashew.

TABLE II.10
Area Under Cashew in Kerala: 1980-90.

In Hectares

Year	Area	Year	Area
1980-81	141,277	1985-86	137,747
1981-82	139,960	1986-87	133,562
1982-83	141,307	1987-88	121,550
1983-84	142,339	1988-89	124,740
1984-85	136,863	1989-90	124,170

Source: 1) 1980-81 to 1986-87: Statistics for Planning.

1988. 2) 1987-88 to 1989-90: Economic Review. 1990.

While the fall in acreage is the result of a number of factors, it is undeniable that State policies have contributed to farmers opting out of cashew cultivation. The government's attempts to increase production through special programmes such as the "Multi State Cashew Development Programme", were accompanied by disincentives such as the 1981 "Kerala Raw Cashew nuts (Procurement and Distribution) Act ". This Act effectively banned private trade in raw cashew nuts. Under the provisions of the Act, farmers were obliged to sell all their produce to the agents of the State, at prices well below market rates. In 1990, the average price offered by

the State was Rs 1300 per quintal, while the open market price was over Rs 1600.⁸⁰

The response of the farmers to the Act was two-fold. The immediate response was to transform the legitimate inter-province trade in cashew. Deprived of organised marketing outlets, farmers started to smuggle the nuts to markets in the neighbouring provinces of Karnataka and Tamilnadu. But the draconian provisions of the Act such as confiscation of the vehicles used in private trade and heavy fines increased the risks of the farmers. The only long term solution, therefore, was to opt out of cashew cultivation.

The rationale for this patently anti-farmer policy is to be found in the strategic location of the cashew processing industry in the political economy of Kerala. The industry is significant for three reasons. First, it accounted for about 45% of the total employment in the factory sector in Kerala in 1981.⁸¹ Second, the workforce is concentrated in large factories employing 400 or more workers. Third, the industry is concentrated in one district. In 1979, 99% of the employment generated in the cashew industry of the state was in Quilon district.⁸² These three factors enabled the labour force within the

⁸⁰ The source for the prices offered by the State is the "Economic Review" . 1990 op cit, while the open market prices were disclosed to me by farmers in the course of the sample survey.

⁸¹ "Economic Review". 1981. op cit.

⁸² ibid.

industry to organise themselves into a powerful pressure group.

While the trade unions within the industry received the backing of the major parties in varying degrees, some of the smaller parties were vitally dependent on the cashew industry for their political survival. The RSP for instance, drew its membership largely from the cashew workers of Quilon district and most of its key leaders have been associated with the trade unions within the industry. More significantly, the RSP has won almost all of its seats from Quilon district in successive elections.⁸³

We had observed in Section II, that given the instability of Kerala's coalition politics, even small parties like the RSP are decisive. Further, all political parties were interested in courting the well organised cashew workers of Quilon district. Consequentially,

⁸³ The dependence of the RSP on Quilon can be seen from the following figures:

<u>Year</u>	<u>Total Seats Won</u>	<u>From Quilon</u>
1967	4	4
1970	4	4
1977	7	4
1980	6	4
1982	4	3
1987	5	4

Source: "Assembly Elections Since 1951". No Date. op cit.

successive governments have formulated policies that have favoured the organised labour in the industry.

By the late sixties, wage costs in the cashew industry had risen considerably due to trade union pressure. In addition, the industry witnessed persistent labour unrest on a massive scale. Factory owners responded by closing down factories and relocating them in the neighbouring provinces. Faced with the loss of jobs and the consequent loss of influence and power, trade unions pressurised the State to take over the closed factories. Thus, in 1970, the Cashew Development Corporation and in 1984 Capex- a State owned co-operative were formed by the State to run the factories taken over from the private sector.⁸⁴ By 1989, the State was directly running over 70 factories employing nearly 54% of the total workforce in the organised cashew sector.⁸⁵

The State however could neither run the factories cost effectively nor guarantee employment. By 1989-90, the State run factories had accumulated losses of over Rs 420 million.⁸⁶ Further, due to shortage of raw nuts, the factories could not give continuous employment. In 1981 the State factories gave only 61 days of employment.⁸⁷ The State's response to the shortage of nuts

⁸⁴ "Economic Review". 1981. op cit.

⁸⁵ "Economic Review". 1990. op cit.

⁸⁶ *ibid.*

⁸⁷ "Economic Review". 1981. op cit.

was the Kerala Raw Cashew nut (Procurement and Distribution) Act of 1981 referred to earlier.

We may summarise our analysis of the cashew industry by noting that the industry was vital to the political interests of the rival fronts in general and the RSP in particular. This enabled trade unions within the industry to safeguard their interests by compelling the State, first, to nationalise large sections of the industry and then to secure essential raw materials by using the State's coercive powers. In the process, the interests of the cashew farmers and the public at large were sacrificed.

RUBBER

We had argued that cashew farmers were vulnerable to negative policies of the State because they supply raw materials to Kerala's largest organised industry. Rubber cultivators on the other hand do not appear to be vulnerable, probably due to the absence of conflicting interests within the sector. Rubber in fact is a spectacular illustration of the results of positive State policy. Between 1950 and 1990, the acreage under rubber in Kerala increased from 67,913 to 376,000 hectares and total production jumped from 16,000 to 275,0000 tonnes.⁸⁸

Market forces such as favourable relative prices have contributed to the shift into rubber; but an analysis of price movements of rubber in the Kottayam

⁸⁸ "Economic Review". Various Issues. op cit.

market during the last ten years, shows that prices alone were not decisive.

TABLE II.11

Trends in the Price of Natural Rubber in Kerala: 1981-90.

(Rs/Quintal. At constant 1970-71 prices).

Year	Price	Year	Price
1980-81	529.00	1985-86	495.00
1981-82	589.00	1986-87	439.00
1982-83	512.00	1987-88	430.00
1983-84	549.00	1988-89	417.00
1984-85	494.00	1989-90	469.00

Source : Economic Review. Various Issues.

Despite the decline in prices farmers were encouraged to shift into rubber due to a combination of positive State policies and the absence of disincentives such as monopoly procurement at pre-determined prices.

Three types of State policy can be distinguished: First, there are credit and subsidy schemes. Since yields from rubber can be taken only six or seven years after the initial investment, State policies are required to lower the initial entry barriers for small

cultivators.⁸⁹ Schemes such as the Replanting Subsidy Scheme of 1957, New Planting Scheme of 1979 and the Plantation Development Scheme of 1990, provided farmers with subsidy and cheap credit to start and continue rubber cultivation.

Second, the State intervened in the market in support of rubber cultivators. Several policy instruments were deployed by the State:(1) a minimum support price was periodically announced by the federal government on the basis of cost of production ; (2) the State Trading Corporation(STC) was often used by the Government to purchase rubber directly from the farmers when the price fell below a critical minimum and (3) the Government restricted imports of natural rubber into the country by channelling it through the STC. The STC was also used to export rubber, when there was glut in the domestic market.

Third, the exemption of small rubber cultivators from some key legislative measures made rubber cultivation attractive. These measures included the Kerala Plantation Labour Act(1951),the Kerala Land Reforms Act,1963 and the Kerala Land Reforms(Amendment Act), 1969.

The exemption from the land reform measures was

⁸⁹ According to the Rubber Act, 1947, a "small grower" means an owner whose estate does not exceed 50 acres of area. In 1988, the relative share of this group in total area and production was 80.34 % and 74.66 % respectively. See: George T.K et al: " Role of Government and Structural Changes in Rubber Plantation Industry ". Economic and Political Weekly. Review of Industry and Management. Vol:XXIII. No:48. 1988.

especially significant, as it encouraged large scale conversion of garden lands into rubber plantation.

These three sets of positive policies, by the federal and provincial governments and the absence of disincentives, have contributed to the spectacular growth of rubber cultivation in Kerala. The State's positive policies cannot be explained entirely by the position of rubber as a scarce industrial raw material. A fuller explanation would require the examination of the location of the rubber sector in the overall political economy of Kerala.

The primary reason for the provincial government's benign policies is the absence of conflicting interests. First, the rubber products industry in Kerala is very small. Currently, only 12% of the rubber produced within Kerala is consumed there.⁹⁰ Further, the industry accounts for less than 5% of the employment in the factory sector.⁹¹ Second, unlike cashew, there is no regional concentration in the rubber industry, as it is spread virtually all over the province. Third, the industry is highly decentralised with average employment in each factory being only about 10. These characteristics of the rubber industry in Kerala- small, dispersed, decentralised and relatively new,- have hindered the formation of powerful interest groups within the rubber products industry. The absence of a large geographically

⁹⁰ "Economic Review". 1990. op cit.

⁹¹ ibid.

concentrated labour force meant that the rubber, unlike the cashew industry was not strategically significant to either trade unions or to political parties.

Rubber cultivators, on the other hand mattered. Between 1961-62 and 1985-86, the area in the non-estate sector (holdings with less than 50 acres), increased from 82,924 to 279,730 hectares. The increase in the relative importance of the non-estate sector, is seen from the fact that while it accounted for only 62.7 % of the area under rubber in 1961-62, it covered 85.6% of the area in 1985-86.⁹² Moreover, the cultivators were geographically concentrated. Five districts of south-central Kerala account for more than 65% of the acreage under rubber.⁹³ Within these districts themselves, topographical requirements, such as elevation ensure that rubber would be confined to distinct compact areas.

The growth in the number of cultivators and their geographical concentration facilitated their mobilisation both through local farmers' organisations and political parties. The Kerala Congress especially has been sedulous in championing the cause of the rubber cultivators. Personal as well as political considerations account for this. First, a number of the prominent leaders of the Kerala Congress themselves have extensive holdings of rubber. Second, the rubber growing districts are vital

⁹² See: George T.K et al. 1988. op cit.

⁹³ Quilon, Pathanamthitta, Kottayam, Idukki and Ernakulam. See: "Statistics for Planning ". 1988. op cit.

to the party. An analysis of the electoral gains of the Kerala Congress over the years indicate that the party won the vast majority of its seats from the same five districts that account for the bulk of rubber acreage.⁹⁴ The Kerala Congress' strategic partnership with the Congress for much of the last two decades meant that the party, and by extension, rubber cultivators could successfully lobby both the provincial and federal government.⁹⁵

The existence of a significant estate sector among rubber producers further enhanced the ability of rubber growers to successfully lobby provincial and federal governments. Multinational companies such as the Malayalam Plantations and the State owned Kerala Plantation Corporation, has a stake in ensuring that State policies do not go against the interests of rubber producers.

The foregoing analysis indicates that favourable State policies towards rubber can be explained by the absence of an interest group within Kerala that required rubber at low prices and second, by the ability of

⁹⁴ Seats won by the various factions of the Kerala Congress from the five districts, in successive elections are given below:

<u>Year</u>	<u>Total Seats Won</u>	<u>Seats Won from the five Districts</u>
1970	13	10
1977	21	16
1982	14	12
1987	9	8

Source: "Assembly Election Since 1951." No Date. *op.cit.*

⁹⁵ The lobbying is evident most when there are sharp falls in the price of rubber. The federal government is often forced to ban the import of natural rubber. The government also intervenes in the market to purchase rubber till prices stabilise.

the rubber growers to mobilise themselves politically. This ability was the result of two sets of factors: the presence of large actors who could absorb the transaction costs involved in collective action and the electoral significance of rubber cultivators.

SUMMARY

In this Chapter, we analyzed the process of policy formulation in Kerala and offered some tentative explanations for its distinctive character. Section I indicated that the State was oriented primarily towards redistributive polices. While this has significantly increased the quality of life for the majority of the population, the neglect of the commodity producing sectors, is now undermining these achievements. Though the State has intervened massively in the economy, its negative resource position has in recent years constrained its ability to continue its interventionist policies.

In section II, we observed, that the presence of ideologically committed parties account for the bias towards redistributive polices. Equally important has been the existence of well organised interest groups. In the context of Kerala's unstable coalition politics, these groups significantly influence policy outcomes. The interest group process within the polity account for the distinctive industrial profile of the province.

Section III analyzed the implications of the interest group process for agricultural policies. Farmers in Kerala experience negative or positive polices according

to their location within the political economy of the province. Since the dominant groups in the province are consumers of wage goods, State policy has aimed at securing these goods at low prices. This policy bias accounts for the mixture of negative and positive policies in the paddy and dairy sectors. Through a comparative analysis of cashew and rubber we also attempted to establish a causal connection between State policies and the interests of the dominant groups.

Dairy Markets in the Pre-Operation Flood Period

Analysis of milk production trends in Chapter II indicates that market forces coupled with positive State policies imparted considerable dynamism to the Animal Husbandry sector in Kerala. However, despite the impressive growth in total milk production, milk markets were still relatively under developed in the province. We shall show that market imperfections were due both to the nature of the product and to the inherent difficulties of organisation in an economy composed of millions of marginal producers. Government attempts to correct these imperfections through a variety of organisational forms are then analyzed and the considerations which dictated the preferred organisational form are also discussed. Finally, we shall argue that while State intervention was necessary to correct market distortions, the nature of the intervention contributed to its comparative lack of success.

The Structure of the Market.

State intervention in milk markets which pre-dated Independence, accelerated during the Five Year Plans. The primary focus of Government concern was the low per capita consumption of milk and milk products. As against a

recommended consumption of 124 grams per day, the consumption in Kerala was only 30 grams in 1964-65.¹ Low per capita consumption was attributed to the low availability of milk in the province. The poor quality of the indigenous milch stock and the lack of organised marketing channels were diagnosed as the major factors inhibiting the growth of a dynamic dairy industry in Kerala.

To improve the milch stock, the ambitious cross breeding programme, to which we have already referred, was launched. Dairy markets were diagnosed as suffering from a number of other imperfections. First, it was a market in which the farmer's room for manoeuvre was severely constrained due to the absence of competing marketing channels. The average producer was too small to be able to influence the market and secure a remunerative price for his produce. It is true that he faced an equally small buyer. But a perishable commodity such as milk has to be disposed of quickly; and in the absence of choice, the market advantage will invariably lie with the trader. Farmers therefore will tend to restrict production by not investing in quality milch stock and underfeeding the animals.

Second, it was a segmented market overwhelmingly dominated by the unorganised sector. This was composed of

¹ "Bulletin of Animal Husbandry Statistics:1986". Various issues. Department of Animal Husbandry. Government of Kerala.

thousands of petty traders who on an average did not handle more than thirty or forty litres of milk a day. The low volumes they operated with, provided little surplus for investment in modern transport and processing equipment. Lack of investment in turn, crippled their ability to manage the seasonal variations associated with the milk industry. These deficiencies of the markets were identified by the State as the stumbling blocks for the development of a vibrant dairy industry in Kerala.²

Milk markets were relatively underdeveloped both in Travancore and Malabar prior to Independence. The requirements of Trivandrum were met by petty traders, who brought milk from the outlying panchayats of Nemom, Ulloor and Peroorkada. In Calicut, urban buffalo keepers seemed to have met the bulk of the city's demand. Contemporary records indicate that the intermediaries in Trivandrum took a sizable margin. It is reported that while traders on an average pay two "chakrams" for a "nazhi" of milk, they sell it for four "chakrams".³

The dominance of the unorganised sector continued despite active State intervention for over a decade and a half. A study by the NDDB in 1975, showed that in the cities of Trivandrum and Ernakulam, the traders still met the bulk of the demand:

² "Administration Report". Various Issues. Department of Dairy Development. Government of Kerala.

³ T C Kochunni Pillai :" Development of the Dairy Sector Through Co-operatives"; quoted in the Travancore Co-operative Journal. February. 1929.

Table III.1

MARKET SYSTEMS IN TRIVANDRUM AND ERNAKULAM. 1975.

Marketing Channel	Trivandrum			Ernakulam		
	Market share	Purchase Price Rs/litre	Sale Price Rs/litre	Market share	Purchase price Rs/litre	Sale Price Rs/litre
State Scheme	19%	1.62	1.84	12%	1.85	2.00
Own Source	8%	-----	-----	10%	-----	-----
Traders	73%	1.25	2.10	78%	1.70	2.20

Source: "Dairy Development Project for the Districts of Trivandrum, Quilon and Alleppey". NDDB. ANAND. 1976.

The above table indicates that over 70% of the market was accounted for by the unorganised sector. The average price paid by the trader was 30% less than that of the Government scheme; while for poor quality milk they were charging 14% more. The price paid by the Government scheme itself was low as we shall show below. Under the circumstance it is clear that in Trivandrum, the farmers were being exploited by the traders.

The segmented nature of milk markets in Kerala is well brought out by the contrasting situation in Ernakulam. Here the price offered by traders do not seem to be very much lower than that offered by the Government scheme. But though Ernakulam is only 200 Kms away, the

Trivandrum farmers apparently are unable to take advantage of the price difference.

The higher price at Ernakulam however seems to be a localised phenomenon; in most milk markets the traders were seen to have been paying a comparatively low price. Confirmation of this observation is obtained by a sample survey done by the author in twenty societies during June 1991. Interviews with society officials and farmers indicate that prior to the formation of the society, the farmers were dependent on either the trader or the local tea-shop. While the tea-shops paid a higher price than the trader, they were not prompt in their payments. Often the farmers were forced to recover their dues in kind from the tea-shops. The vendors were prompter in their payments; but offered much lower prices.⁴

A serious lacuna of the existing market system was an inability to handle lean/flush variations. The NDDB, in its survey of the Travancore region in 1975, found that while total production during the lean period was only 363,000 litres per day(LPD), in flush this had increased to 546,000 LPD -an increase of over 50%.⁵ In Kerala there are two flushes- one during June-July coinciding with the South West monsoon and another during November- December coinciding with the North-East monsoon.

⁴ Sample Survey. June-July 1991.

⁵ See: " Dairy Development Project for the Districts of Trivandrum, Quilon and Alleppey - Kerala". NDDB. Anand.1976.

In the monsoons, farmers are simultaneously faced with an increase in production and a contraction in demand. The comparatively cooler climate and availability of green fodder stimulates production, while continuous rains depress the demand for all beverages including milk. In the absence of large scale processing plants and feeder balancing dairies equipped with conservation facilities such as powder plants, market agents such as traders and tea-shops are unable to cope with the simultaneous phenomena of increased supply and diminished demand. They respond by cutting both procurement and price.

The supply responses of farmers are obviously not as flexible. While some of the increased production is consumed by the farmers themselves, the increase in net marketable surplus in the aggregate can still be considerable. Thus, the survey referred to above, estimates that while the net marketable surplus in lean was 206,000 LPD, in the flush, it increased to 295,000 LPD - an increase of over 43%.⁶

The problems of lean/flush management becomes more acute in highly commercialised markets. A comparative analysis of data in 1978 showed that 52% of the milk produced in Kerala was sold while the corresponding All-India figure was 24%.⁷ A subsequent study in 1986 by the Centre For Development Studies, Trivandrum, showed that 63%

⁶ ibid

⁷ Sarvekshana Vol II, No:2 October 1978. Quoted in Nair T.S. 1989. op cit.

of the milk produced was being sold.⁸ As Kerala does not have a well developed ghee market like Gujarat or a sweet-meat market as in West Bengal, the excess production has all to be sold as liquid milk, when facing a lower demand curve during the monsoon.

Inability to market milk during the flush has a very negative impact on the small farmer as he markets a disproportionately higher percentage of his output. A study by Nair K.N in 1976, showed that 79% of the total marketed surplus was contributed by farmers owning only one or two animals.⁹ The higher degree of commercialisation among the small farmers implies that they are far more vulnerable to market failures.

Moreover, cross-breeding technology has transformed the basis of production in Kerala. Prior to the Indo-Swiss project and the massive A I programme, the farmers of Kerala operated a low cost, low-input, low out-put system of production with a low net marketable surplus. The diffusion of cross-breeding technology, is as we have seen, scale neutral. Consequently, the conversion to a high-cost, high out-put production system will enormously increase the risk and vulnerability of the farmers if the market fails to develop mechanisms for balancing seasonal variations.

Lean/flush variations can be evened out by investing in powder plants and feeder balancing dairies.

⁸ George P.S and Nair K.N. 1989. op cit

⁹ Nair K.N. 1981. op cit.

However, to generate the volumes necessary to feed these plants, it is necessary to have a network of collection centres, chilling centres and processing plants. This is all the more necessary in a tropical country where milk is subject to rapid deterioration. This would entail a prohibitively high order of investment in a capital scarce economy. For instance, the Ernakulam dairy alone, which was commissioned in 1990, cost a little over Rs 40 million ¹⁰ (equal to the total 1990 per capita income of over 27,000 Keralites).¹¹ To feed this dairy, further investment in road milk tankers and chilling centres would be necessary. In a market, dominated by small traders with little investible surplus, there is little chance of the market generating such investment.

Since the liquid milk market operates with comparatively lower margins than the product markets, it attracts little outside capital. A study by the National Commission on Agriculture in 1976, found that private enterprises in the dairy industry are primarily concerned with the production and marketing of luxury dairy products such as baby food and malted beverages, the demand for which comes from a small segment of the urban rich. The report went on to conclude that "in general, the privately owned dairies remain on the periphery of the country's

¹⁰ Confidential records of K C M F. 1991.

¹¹ "Economic Review". 1991. op cit.

dairy industry".¹² The scale of the investment required, prevents the agents operating within the market from investing, while the low margins of the liquid milk trade act as entry barriers to outside capital.

Kerala did not possess a single feeder-balancing dairy or powder plant even as late as 1980, when OF was launched. Further, under-investment in bulk carriers eroded the ability of the market to import milk during lean or ship it out during flush in any significant quantities. Consequently, the seasonal variations could not be managed by the market, leading to chronic shortages. Often during the peak lean season, milk had to be actually rationed in urban cities. Equally problematic was the flush, when there are recorded instances of excess milk being poured down city gutters.

The foregoing analysis indicates that the markets in Kerala revealed significant distortions. While total production went up steadily, there were wild swings in urban supply from year to year. These imperfections have negative impact on both producers and consumers. The impact on the consumer is clear enough; but he at least has the freedom to change his preferences. But the producer has little room for manoeuvre. Having no assurance of stable markets or remunerative prices, he will cut production in the long run. But in the short run, operating as he is in

¹² "Report of the National Commission on Agriculture". 1976. op cit.

a highly commercialised market, he is bound to suffer considerable financial difficulties.

The nature of the commodity profoundly affects the manner in which markets are formed. We have already referred to the fact that a perishable commodity in a tropical country would require investment on a large scale if organised, non-segmented markets are to emerge. In the absence of appropriate institutions, the costs involved in testing the quality of milk is also a factor retarding the functioning of milk markets. This can best be illustrated by referring to the study of rice and rubber markets by Popkin. He cites Akerlof's classic example of the used car market in which lack of information as to whether the car offered for sale is bad (a lemon) or good (a peach), drives down the price of all cars.¹³

The absence of a mechanism that would transmit information quickly and accurately about the quality of goods, therefore, prevents market agents from obtaining optimum prices. Popkin argues that rubber markets are like used car markets in the sense that quality cannot be easily discerned; the quality of rice can, on the other hand, be easily tested by rubbing the grains together. He concludes therefore, that rice markets tend to be auction markets where the absence of high information costs enables the market to function effectively. But the difficulty of

¹³ See Popkin S : "Public Choice and Rural Development-Free-rider, Lemons and Institutional Design" in Russell C.S and Nicholson N.K ed: Public Choice and Rural Development. Washington D.C: Resources for the Future. 1981.

judging the quality of rubber quickly and cheaply can create market failures in the absence of appropriate organisations.

We may extend this argument to include milk markets. Milk prices are determined entirely by quality. The ease with which milk can be adulterated and the comparative difficulty of detecting the degree of adulteration in unorganised markets drives down milk prices to the average price prevailing in the market. This penalises the producers of good quality milk and they would be encouraged by the market to offer inferior milk. The absence of institutions that could guarantee the quality of milk, therefore, could result in market distortions.

Market imperfections of the sort we have analyzed can be corrected by the creation of appropriate institutions either by producer groups or through State intervention. The experience of the dairy industry in several countries indicates that the ownership pattern of productive assets such as milch stock and land does influence the nature of the intervention. Where large commercial farmers dominate the dairy industry, the chances of the farmers themselves organising the necessary institutions are greater than in an economy consisting of millions of small producers. There are several reasons for this.

First, with larger investible surplus, big commercial farmers are in a better position to invest in equipment and plant. Second, and more importantly, it is

far more easier to organise a few big commercial farmers for collective action than millions of small producers. An effective milk procurement and distribution system is a 'public good' for all the agents who are part of the system. The dairy farmers of Kerala would fall into the category of what Olson calls a "latent group". ¹⁴Such groups are often afflicted with acute free-rider problems and are unable to organise themselves effectively for collective action. Further, the transaction costs involved in organising them would be very high for an individual or even a group of individuals. For the individual farmer with a very low marketable surplus, it is not rational to incur the expenses involved in organising his fellow producers for collective action. It is far more rational to free-ride. Consequently, the 'public good' of an effective organisation for market intervention will not emerge spontaneously.

Olson argues that latent groups can be induced to act collectively by an entrepreneur who is prepared to bear the transaction cost and who can offer both selective incentives and disincentives. We have shown that the structure of the dairy industry in Kerala and the scale of investment required for building an institution for market intervention acted as barriers to collective action. The only actor willing and capable of absorbing the costs of organisation and overcoming the free-rider problem was the State. Hence, it was left to the State to intervene

¹⁴ See Olson M. 1965. op cit.

in the market both through State run processing plants and through State sponsored Co-operatives.

Market Intervention by the State.

The chief instrument for market intervention was the co-operative. Before Operation Flood, two types of Co-operatives were organised in Kerala - the primary milk co-operative and the district milk supply union. The former operates in a limited geographical area- often a panchayat, while the latter has district- wide jurisdiction. The primaries are concerned with the collection of milk from the farmers and supplying it to the district unions. They also extend various facilities to the farmers such as loans for the purchase of milch cattle, subsidised inputs etc. The primaries are affiliated to the district unions which normally restrict their activities to the distribution of milk. Occasionally, they also engage in the business of supplying inputs in bulk to the primaries.

The dairy sector in Kerala witnessed a rapid expansion of co-operatives as the following table reveals:

Table III.2

Growth of Dairy Co-operatives in Kerala:1961-89.

Year	Number of Societies	Membership	Turnover Rs/Millions
1961-62	150	N.A	3.17
1964-65	215	23,000	6.25

Year	Number of Societies	Membership	Turnover Rs/Millions
1968-69	347	41,963	18.63
1970-71	363	52,128	15.70
1972-73	417	63,170	29.00
1974-76	463	88,287	65.88
1978-79	848	178,814	96.67
1979-80	955	216,432	121.23
1980-81	1043	231,807	N.A
1984-85	1335	343,043	"
1986-87	1582	416,471	"
1987-88	1690	421,000	"
1988-89	1859	441,799	"

Source: "Administration Report". Various Issues.
Department of Dairy Development.

The above table indicates that there has been a spectacular growth in both numbers and membership during the period under discussion : from a mere 150, the number of primaries had increased to 955 and membership had reached nearly a quarter of a million by 1980. The growth in membership however cannot be entirely taken at its face value. A large percentage of the members are "sleeping members", members who have joined the society not for deriving any benefits from it, but at the behest of political parties or local leaders. Such members take little interest in the day to day affairs of the society. In some societies the percentage of such members can be

quite high. In Pullenchery, a society affiliated to the Malappurum union, out of a total membership of 462 in 1990, only about 31 members were regularly pouring milk (7%).¹⁵ The situation in the other societies are not dissimilar with participation rates seldom going over 50%. This situation does not seem unique to the dairy sector. In fact in a recent statement, the Kerala minister for Co-operative development has admitted that 38% of all members in the societies in the province are sleeping members.¹⁶

Apart from a few consumer societies, the vast majority of the societies were organised by the State. The reasons for the State choosing the Co-operative as the preferred mode of organisation is complex. We can only offer some tentative explanations.

Why Co-operatives ?

In many Third World countries, co-operatives have emerged as the preferred instrument of State intervention in the agrarian economy. Post-colonial States, saw in the co-operative structure, an optimum solution to the existing pattern of social and economic inequality. Co-operatives were expected to achieve a variety of goals, ranging from the grandiose vision of establishing Socialism to the more

¹⁵ Sample Survey. June-July. 1991.

¹⁶ Reported in the Malayala Manorama. 3/10/1991.

modest goal of marketing agricultural produce¹⁷. This fascination with the co-operative system can be traced to a number of factors.

Hyden, attributes the popularity of co-operatives among African governments to two reasons: the ideological and political attractiveness of the co-operative model and the strong faith of African leaders in macro planning.¹⁸ Ideological considerations, we noted, is the main driving force behind the Ujamaa Co-operatives of Tanzania. Belief in the State's ability to engineer economic development through a rational planning exercise also encouraged the proliferation of co-operatives.

In India, both ideology and a commitment to central planning were equally important factors. The Government of India believed the co-operative to be the only agency capable of establishing a non-exploitative relationship between the rural producer and the urban consumer. This belief in the inherent egalitarian structure of the co-operative is to be viewed in the context of the

¹⁷ Saul J.S, observes that the guiding principle behind the rapid spread of the Ujamaa co-operatives in Tanzania, was President Nyerere's desire to " establish the Socialist principle of avoiding the exploitation of man by man". He quotes Nyerere, as saying that the co-operative movement has little merit if it merely serves the capitalist farmer. Only if production is organised on socialist lines, are co-operatives fulfilling their real goals.

See Saul J.S: "Marketing Co-operatives in a Developing Country: The Tanzanian Case", in Worsley P ed: Two Blades of Grass: Rural Co-operatives in Agricultural Development. Manchester:Manchester University Press. 1971.

¹⁸ See Hyden G " Approaches to Co-operative Development: Blueprint Versus Greenhouse" in Attwood D W and Baviskar B S ed: Who Shares: Co-operatives and Rural Development. Delhi: O U P. 1988

Community Development Project (CD) launched in the fifties. The underlying belief of the CD Programme was that existing unequal patterns of social and economic power could be rectified through cooperative effort rather than through class conflicts. In this context, the co-operative became a powerful ideological argument for avoiding potentially divisive and controversial egalitarian programmes such as land reforms. In other words, co-operatives became for the State, a soft option for tackling the myriad problems of poverty and social inequality.

Ideology, however, was not a major factor in the spread of co-operatives in Kerala. Other factors were more significant. The fascination with Western organisational forms accounts for the early induction of the co-operative in Kerala's dairy sector. The earliest writers on the dairy industry of Travancore observed that milk producers in western countries such as Denmark, Sweden and Ireland prospered only after they had organised themselves into co-operatives.¹⁹ The immediate inspiration for the organisation of the milk co-operative in Trivandrum in 1930 was the success of the milk supplies union of Calcutta which had been started under the colonial administration.²⁰ The Calicut milk supplies union which had been started in

¹⁹ See T C Kochunni Pillai. 1929. op cit.

²⁰ The Registrar of the Travancore Co-operative Journal and some of the prominent public men of Trivandrum visited Calcutta in 1929 to study the functioning of the milk supplies union. They came back very impressed by its functioning and urged the Government to take the initiative in organising a milk supplies union. See: The Travancore Co-operative Journal. February. 1929.

the late thirties was also inspired by Western models. Thus, the continuing hold of Western models of organisation partly explains the emergence of the co-operative as the preferred organisational form in the dairy industry.

However, this is but a partial explanation. It does not explain the phenomenal growth of the co-operatives during 1960-1980. We would argue that the popularity of the co-operative is due to the opportunity it affords political actors to maximise political and personal benefits. For upwardly mobile local politicians, the co-operative is the launching pad for a political career. The co-operative structure provides politicians the reach, resources and power to exercise political patronage. They can offer various incentives to their followers such as easy credit and subsidized inputs; further, they can reward close supporters with jobs and directorships in these organisations. In addition, the resources of the organisation- both human and material- can be mobilised at critical junctures such as elections. The institution can also be used as a tool to harass opponents: by refusing to sanction credit, withholding of inputs and in a number of other ways. As the same individual is often on the board of several local co-operatives, the network of patronage and influence he can build is considerable. This accounts for the keenness with which political parties fight elections in the various co-operative institutions of Kerala. In elections to primary credit societies, District Co-operative Banks and other co-operative institutions, the

main contest is between the two major political alliances: the UDF and the LDF.

An analysis of the contemporary co-operative scene in Kerala is illuminating. According to the records of the Co-operative Department, currently there are 8740 co-operatives in the state.²¹ Together, they are estimated to have a membership of over 10 million persons- nearly one third of the total population of the state. These societies have been functionally organised by industry. There are credit, coir, hand-loom, rubber, khadi and a host of other types of societies. Together they cover virtually every facet of economic life in rural Kerala. The resources of these societies are considerable. The credit societies, which number about 1500, alone have advanced loans worth nearly Rs 7.4 billion in 1990-91.²² With several different types of co-operatives often functioning within a small geographical area such as the panchayat, the control of these institutions is of great strategic importance to all political parties. Consequently, the major political parties have always been keen to capture co-operatives from rivals and to start new co-operative institutions so as to undercut the influence of other parties. This a theme to which we shall return in the next chapter.

The State department concerned with Co-operatives has a powerful vested interest in ensuring that the number of co-operatives increases. The promotion opportunities of

²¹ Reported in the Malayala Manorama: 5/10/1991.

²² *ibid.*

the department officials are intimately linked with the growth of the co-operatives. Each co-operative has to be statutorily audited. On the basis of various criteria, the number of societies that can be audited by one co-operative inspector is fixed. The Government in consultation with the representatives of the employees, have fixed the ratio between different categories of staff- so many Assistant Registrars for so many co-operative inspectors and so on. In other words, promotion to higher positions is dependent on the number of subordinates below, and the number of the lowest category of staff are dependent on the number of societies there are to audit. The keenness of the Co-operative Department, which is the statutory authority for all co-operatives, to proliferate co-operatives is obvious. The administrative departments, ie, the departments which control the schemes that the co-operatives implement --- for instance, the Dairy Development Department for dairy co-operatives or Handloom Development Department for the handloom industry, have equally compelling reasons for increasing the number of co-operatives. The funds at their disposal are often tied to the number of co-operatives under their control and the size of the department is vitally dependent on the number and size of the schemes they implement. In subsequent chapters we shall show that the Dairy Development Department's growth has paralleled the growth of the co-operatives.

The private gains of both bureaucrats and politicians are another powerful inducement for the proliferation of co-operatives. A study by the author in 1986 showed that there was an enormous increase in the number of handloom co-operatives in Trivandrum district over the period 1980-84. Further analysis showed that a large percentage of the looms reported in the cooperative sector of Trivandrum district was bogus. The society officials in collusion with corrupt officials had exaggerated the number of the looms with a view to divert Government subsidy meant for handloom workers into their own hands. It was unofficially estimated that during a ten year period, subsidy worth over Rs 250 million had thus been illegally diverted.²³ This gives some indication of the lure that the co-operative has for the politician and the bureaucrat.

The State dependence on outside capital has also influenced its choice of this organisational form. We have seen that financial assistance to the dairy sector by the Central Government during the Sixties and the Seventies was contingent on the assets thus created being handed over to the co-operatives. The NDDB's assistance under Operation Flood was to be channelled only through co-operatives.

²³ The Hindu in its report dated 11/3/1986 quotes the minister for industries as stating that nearly 15,000 looms in Trivandrum district were bogus. This represents nearly 71% of the looms reported for Trivandrum. The Malayala Manorama in a report dated 2/3/1986 states that during a ten year period, bogus societies would have fraudulently collected over Rs 250 million in false subsidy claims. Also See V Rajagopalan. 1986. op cit.

Other national institutions such as National Cooperative Development Corporation (NCDC) and National Bank for Agricultural Development (NABARD) have also insisted that any investment in the agricultural sector should only be through Co-operatives. The state's perilous financial situation give no freedom of choice if it wanted to attract investment. Thus the choice of organisational form was often influenced by the demands of credit institutions.

Apart from these compulsions, there were other factors responsible for the proliferation of co-operatives in the dairy sector. The nature of products such as milk and sugar, facilitate the organisation of producers into co-operatives. As we have noted, both are bulky and easily perishable commodities which require lumpy investment for procurement and processing. Only by aggregating the resources of a large number of producers, can the required funds be generated. Further, in the processing industry of these products, there is no conflict between the interests of the large and small producers. In fact, to generate the volumes required for reaping economies of scale, the large producers require the produce of the small farmers. The absence of conflict facilitates the emergence and continued existence of co-operatives in the dairy industry.

Dairy Co-operatives in Kerala.

We have analyzed the reasons for market distortions in the dairy industry of Kerala and have offered some explanations for the choice of the Co-operative as the preferred instrument for intervention. We shall now attempt to evaluate the impact of the intervention. This can be best done by briefly sketching the history of the major milk co-operatives of Kerala and the State's involvement with them during the period 1960-1980.

The Trivandrum Milk Supplies Union. (TMS)

We have noted above that the union was started in 1939 and was inspired by western models and the success of the Calcutta union. Contemporary records indicate that State officials of the Co-operative department were actively behind the organisation of the union. We have little information of the activities of the union till the sixties when the State again started to take an interest in the affairs of the union. The State's involvement came in the form of the Trivandrum Milk Scheme which consisted of setting up a 6000 LPD processing plant. The plant was built with State capital and was transferred to the milk supplies union on the condition that 45% of the capital investment would be repaid in 15 years.

In the initial years the scheme appears to have been received well by the farmers- over 65 primary

societies were supplying about 8500 LPD to the union by 1964-65. But by 1967, there were serious complaints about the functioning of the union. The union had accumulated huge losses and was in serious financial difficulties. Not only had it failed to service the government loan, it owed the farmers about Rs 0.37 million.²⁴

The farmers petitioned the Government against their own union and requested that the State should run the dairy directly. Accordingly, in February 1967, the State took over the direct control of procurement, processing and marketing of milk in Trivandrum city. However, despite the direct management of the dairy by the State, the dairy continued to suffer heavy losses which by 1976 had accumulated to Rs 1.29 million. Milk procurement which had picked up immediately after the Government took over was maintained at about 10,770 LPD.²⁵ This would indicate that despite high capacity utilisation, the dairy was still suffering heavy losses. The combination of heavy losses and high capacity utilisation indicate that the State was artificially keeping the selling price low while marketing the maximum quantity of milk. Thus, both purchase and sales price had been virtually frozen between 1967 and 1972. By the time the dairy was handed over to the Kerala Livestock Development and Milk Marketing Board(KLDMMB), the newly created public sector corporation, the combination of low

²⁴ "Administration Report". Various Issues. Department of Dairy Development. op cit.

²⁵ *ibid.*

prices, high operating costs and the large volume of sales at below market prices, had brought the dairy to virtual financial bankruptcy.

The Calicut Milk Supplies Union (CMS)

We have seen that prior to the formation of the union the demand for milk in Calicut was met by urban buffalo keepers. Chronic shortages and the indifferent quality of the milk prompted a group of prominent citizens to organise a consumer society. The group included advocates, public men and social workers. It started in a very small way with the average daily collection being less than 80 Lpd and was confined to the city of Calicut.²⁶ The small size of the society and the involvement of prominent citizens helped the society to overcome the obstacle to collective action that we have analyzed above.

From its inception in 1939 to the mid-fifties, the union functioned autonomously with little involvement from the Government. However, during the late fifties, as part of the all India programme of modernising the dairy sector, the Calicut Milk Supply scheme was launched by the Government of Kerala. Like the other urban milk supply schemes, this consisted mainly of a pasteurisation plant which was commissioned in 1964.

The implementation of the scheme had a negative impact on the CMS union. First, it led to a loss of

²⁶ "Administration Report". Various Issues. CMS Union. Calicut.

autonomy for the union. The sanction for the scheme was contingent on the union amending its bye-laws, so that the Government could have greater control over the affairs of the union. The CMS union was a union of consumers rather than that of producers. But the ownership pattern was highly egalitarian with 70% of the shares being held by members who had less than 10 shares each.²⁷ With such a broad based ownership pattern, the share holders could at least in theory, exercise some degree of control over the affairs of the union.

However, the Government decreed that since the milk scheme is to be implemented through the union, the bye-laws should be amended to cede operational control to the Government. In 1960, the bye-laws were amended to give the Government 50% of the shares of the Union. Reflecting the changed ownership pattern, the board of the union was also reconstituted to give the Government six representatives out of a total of nine.²⁸

The impact of the scheme on milk procurement and profitability was equally adverse as the following table shows:

²⁷ ibid.

²⁸ ibid.

TABLE III.3

Performance of the Calicut Milk Supply Union:1941-80

Year	Milk Procured	Profit/Loss in Rupees
1941-42	0.03	-309
1951-52	0.41	+10,619
1961-62	1.40	+16,619
1963-64	2.00	+25,000
1964-65	2.05	-85,000
1971-72	2.60	-699,000
1974-75	2.27	-1,255,000
1979-80	2.91	-1,099,000

Source: "Administration Report". Various Issues. CMS Union.

The above table indicates that up to the time when the Government Scheme was launched, the union was working with a fair degree of profitability. Between 1951-52 and 1964-65 procurement rose by 400% whereas between 1964-65 and 1979-80, it rose by only 42%. Similarly, profitability fell after the mid sixties - from a small profit of Rs 0.025 million in 1963-64 to a loss of Rs 1.1 million by 1979-80.

The Malappuram District Co-operative Milk Supplies Union (MDCMSU)

The MDCMSU, located in Nilambur town in South Malabar, first started as a primary society in 1951 and

became a district union in 1971. In the late forties and early fifties, waves of immigrants from central Travancore began to settle in the hill tracts of Malabar. These settlers brought dairy skills which formed the basis of the local dairy economy. The settlers kept milch cattle mainly for home consumption; but there was a small marketable surplus which could not be sold for want of marketing channels. The only outlets were the few tea-shops of Nilambur town, which could absorb only a limited amount of milk.

It was at this juncture that the State's programme of assistance for starting up dairy co-operatives was being popularised by the local co-operative inspector. The promise of financial help from the State, persuaded several prominent individuals of Nilambur to start a society. They included a retired Army Major, the President of the local co-operative bank and the Panchayat President. At a series of meetings of farmers, various incentives, including loans for the purchase of milch cattle and subsidized inputs were offered in the name of the State and share capital was collected.

The society thus came into existence as a result of: (1) a need for assured marketing channels, (2) the availability of local leadership and (3) the existence of a State programme that could offer incentives and the resources to meet the transaction costs. Apart from the initial assistance to start the society, the State continued to help the society over several years. A

chilling plant was constructed in 1969 with State help and a few years later, the society asked for and received the services of a Government official to act as the society's secretary.²⁹

An analysis of the union's growth and performance shows mixed results as Table III.4 reveals:

TABLE III.4
Performance of MDCMSU: 1964-79

Million litres per annum

Year	Milk Purchased			Milk Sold		
	Local	Outside	Total	Local	Outside	Total
1964-65	0.876	----	0.876	0.37	0.51	0.88
1970-71	1.14 (95%)	0.06	1.20	0.68 (42%)	0.52	1.20
1975-76	1.06 (89%)	0.14	1.20	0.66 (55%)	0.54	1.20
1978-79	0.91 (79%)	0.24	1.15	0.64 (41%)	0.51	1.15

Note: Figures in brackets denote percentage to total.

Source: "Administration Report". Various Issues. MDCMSU

The above table questions the long term impact of the Union. On the one hand, it is obvious that local sales had almost doubled between 1964-65 and 1978-79, indicating that local consumption had increased significantly. On the other hand, the drop in local purchase- both in absolute

²⁹ "Administration Report". Various Issues. MDCMSU. Nilambur.

and percentage terms would tend to indicate that the union was losing favour with the local farmers. The drop in procurement had a negative impact on the union's finances as it was not generating the volume of 1.18 MLPA required to break even. As a result, the union lost money steadily. A small surplus of Rs 0.14 million in 1964-65 had by 1978-79 been transformed into a marginal loss of Rs 0.05 million. This was despite the fact that it had stopped servicing the Government loan and was finding it difficult to even meet the maintenance cost of its vehicles.

Apart from the major schemes analyzed above, the Government had launched similar schemes in all the districts. The results were not dissimilar. Thus, the Palghat scheme was commissioned and handed over to the union in 1967. By 1973-74, the capacity utilisation was down to about 21% and accumulated losses had climbed to Rs 1.2 million. By 1977-78, the accumulated loss had risen to Rs 3.26 million. With the union virtually bankrupt, the Government took direct control in 1976. The Ernakulam milk scheme was started in 1967. Unlike the other schemes, it was never entrusted to any union. It was operated directly by the State and it too had by 1975-76, run up an accumulated loss of Rs 0.2 million.³⁰

³⁰ "Administration Report". Various Issues. Department of Dairy Development. op cit.

Other Instruments of Intervention.

Co-operative societies and urban milk supply schemes were not the only instruments for market intervention employed by the State. Two other State-initiated schemes were Rural Dairy Centres and Urban Dairy Farms. The former were started on the assumption that markets had failed to provide a channel for tapping the milk production potential of the province. The State believed that in many rural milk sheds, production could be significantly increased, if the farmers were provided with a remunerative price and assured markets. Accordingly, by 1976, chilling plants were set up in Mavelikkara, Peerumade and twelve other places.

The urban dairy farm was a scheme conceived by the Dairy Development Department when the farmers started withholding milk from the Trivandrum milk scheme on account of poor purchase price. The idea was to start a dairy farm at Valiyathura, where the department was already running a fodder farm. However, after a few million rupees was spent in constructing sheds and other infrastructure, the Government abruptly dropped the project in 1976.³¹ A similar attempt was made a few years later and a Jersey farm was actually set up at Vithura - on the outskirts of Trivandrum. The farm is still in existence; but its

³¹ ibid.

efficiency can be judged by the fact that there are more workers in the farm than there are milch cattle.³²

Till 1976, market intervention was done by the State either directly through the urban milk schemes or through the co-operatives. In 1976, the State decided that for the integrated development of the dairy sector a new organisation was necessary. It, therefore, created a State company- the Kerala Livestock Development and Milk Marketing Board (KLDMMB) by combining the developmental activities of the Indo-Swiss project³³ with the commercial activities of the dairies and the chilling centres.

It was a venture doomed from the start as the ethos, the personnel and the activities of the two were incompatible. The personnel of the Indo-Swiss Project were mainly scientists involved in research. The dairies and chilling centres were, on the other hand, run by government officials of the Dairy Development Department. Despite the change in organisational form there was no perceptible change in the nature of the intervention. Prices were still centrally determined, the personnel were the same and the objective was still that of maintaining urban milk supply. Consequently, the results were also the same and by 1982, the organisation had an accumulated loss of Rs 3.3

³² Field Visit . June- July 1991.

³³ The Indo-Swiss project was started in the early Sixties to evolve a modern cattle-breeding programme for Kerala. Its main activities included the supply of exotic bull semen and high quality fodder seeds to farmers.

million.³⁴ The KLDMMB engaged in milk marketing until 1982, when this function was transferred to the Kerala Co-operative Milk Marketing Federation (KCMMF) formed under the Operation Flood programme. The KLDMMB was left with the developmental functions of the old Indo-Swiss project.

The Impact of Intervention.

So far we have briefly sketched the history of State intervention in milk markets in Kerala from the early sixties to the launching of OF. The State had intervened on the grounds that the absence of direct links between producers and consumers had deprived farmers of assured markets and remunerative prices. In this section, an attempt is made to evaluate whether the intervention of the State to correct market distortions has achieved its objectives in terms of four criteria: (1) Whether the market share of the organised sector has expanded significantly due to the intervention (2) whether it had led to increased investment in the dairy sector with a concomitant increase in the ability to manage seasonal variations (3) Whether State intervention through farmers' co-operatives had led to increased and remunerative prices for the farmers and (4) finally whether the intervention was cost effective.

³⁴ Confidential Records of the KLDMMB.1991.

The performance of the State sponsored institutions can best be analyzed through the two tables given below:

Table III.5
Performance of Urban Milk Supply Schemes: 1964-81.

Agency	1964-65		1970-71		1975-76		1980-81	
	Milk*	Profit/ Loss	Milk*	Profit/ Loss	Milk*	Profit/ Loss	Milk*	Profit/ Loss
TMS	2.91	-0.60	3.77	-0.26	3.93	-1.29	----	----
CMS	2.08	-0.45	2.50	-0.70	2.52	-1.29	2.87	-.96
PLG	3.04	-0.29	1.85	-1.20	1.06	-2.50	----	----
MLP	0.73	+0.01	1.20	NA	1.20	-0.11	1.65	NA
KTM	----	----	0.69	-0.11	2.06	-0.39	----	----
EKM	0.65	----	1.56	-0.34	2.91	-1.14	----	----
ALP	----	----	----	----	0.91	-0.25	----	----
KLDB	----	----	----	----	----	----	19.35	-3.33
All	8.41	-1.35	11.57	-2.61	14.59	-6.97	23.87	-4.29

Milk* = Milk Handled

Key to initials: TMS= Trivandrum Milk Supply Scheme, CMS= Calicut Milk Supply Scheme, PLG= Palghat Milk Supply Scheme, MLP= Malappuram Milk Supply Scheme, KTM= Kottayam Milk Supply Scheme, EKM= Ernakulam Milk Supply Scheme, ALP= Alleppey Milk Supply Scheme, KLDB= Kerala Livestock Development and Milk Marketing Board.

Source : "Administration Report". Various Issues.

Department of Dairy Development, CMS and MDCMSU.

Confidential files of KLDMMB.

Table III.6
Performance of Primary Co-operatives and Milk Supply Unions
:1964-80.

Milk in MLPA

	1964-65	1975-76	1979-80
Number of Unions	10	9	8
In Profit	NA	3	2
Number of Primaries	150	521	1043
In Profit	Na	239 (46%)	533 (51%)
Milk Handled(MLPA)	8.8	34.27	55.12
Total Production(MLPA)	191.06	582.52	840.78

Source: "Administration Report". Various Issues. Department of Dairy Development and "Economic Review". Various issues. op cit.

Table III.5 shows that the milk handled by the State sector schemes has been steadily rising. From 1964-65 to 1975-76 when the KLDMMB was formed, the annual average growth rate was around 6.7%; from 1975-76 to 1981-82, when the dairies were handed over to the federation, the total milk handled increased by an average of 10.6% per annum. The milk handled by the co-operative structure as a whole, has also been increasing over time - from 8.8 MLPA in 1964-65 to 55.12 MLPA in 1979-80.

While the growth rate in absolute terms has been satisfactory, the real test of the efficacy of the intervention can be judged only on the basis of the market share that these state-supported institutions have captured over the years. Judged on the basis of total production, the primaries and the unions together handled only 4.6% of the total milk produced in Kerala in 1964-65. In 1975-76 this increased to 5.88% and to 6.56% by 1979-80. Thus, by this criterion, the organised sector has shown steady, but unspectacular growth.

However, to get a clearer understanding of the role of the organised sector we need to look at marketed surplus rather than at total production figures. In 1975-76 an NDBD study of the southern districts of Kerala showed that 55% of the production was being marketed. By this criterion the organised sector is seen to be handling 10.7% of the marketed surplus; by 1979-80, the share of the organised sector in the marketed surplus had increased to 12.85%.³⁵ From the above analysis we can conclude that while the organised sector had shown steady progress as a result of the active intervention of the State, nearly 88% of the marketed surplus in the state was still handled by the unorganised sector in 1979-80. Or to put it in another way, despite State intervention for over 15 years market structures had not been significantly altered in Kerala.

Our second criterion of evaluation is whether State intervention had resulted in significant investment in procurement and processing facilities with a concomitant increase in the ability to handle seasonal variations. In the beginning of the Sixties, there was no processing facility in the state. By 1980, a total processing capacity of 68,000 Lpd had been built up through the various milk schemes. In addition, there were a number of chilling centres scattered all over rural Kerala. But with an average capacity of only 6000 LPD, these dairies found it difficult to process all the milk that was procured. Thus, even the Trivandrum dairy which had a rated capacity of 20,000 LPD, was in 1980, operating at a capacity of 135%;³⁶ a situation which makes the dairy highly vulnerable during the flush season.

An inter temporal analysis shows that while between 1960-61 and 1970-71 a capacity of 40,000 LPD was

³⁵ "Dairy Development Project for the Districts of Trivandrum, Quilon and Alleppey, Kerala. 1976. op cit and Nair T.S. 1989. op cit.

³⁶ "Administration Report". Various Issues. Department of Dairy Development. op cit.

added, between 1970-71 and 1979-80 a further capacity of only 28,000 Lpd was added. As total milk production had jumped from 0.21 million tonnes in 1964-65 to 8.66 million tonnes by 1979-80, the lack of investment in processing constrained the ability of the organised sector to handle seasonal variations.

An analysis of the functioning of CMS union, shows that supply and demand were not in equilibrium throughout the period under discussion. Thus, in 1968, milk was in such short supply that it had actually to be rationed. In 1970-71, on the other hand, an enormous increase in supply, saw the union imposing quotas on the quantity of milk that each society could send to the union. Despite this, the increase in supply was so great that the union was forced to purchase the milk from the farmers and then dump it in the city drains, incurring great financial losses in the process. In 1976 and 1978, the city once again suffered acute shortages, and the union was forced to import milk from Tamilnadu at great cost.³⁷ The experience of CMS is not unique: all the other unions were also unable to efficiently manage the seasonal and annual variations in the production and supply of milk.

Our third criterion for evaluating the State's intervention in markets is whether it has succeeded in ensuring a remunerative price for farmers. This is the subject for detailed analysis in Chapter VI where we shall be discussing the politics of pricing. It will suffice to give here some indication of the prices offered by the Trivandrum Dairy, which as we have noted was directly run by the State from 1967 onwards. The purchase price for milk during the period 1967 to 1979 is given below:

³⁷ "Administration Report". Various Issues. CMS Union. op cit.

Table III.7
Purchase Price of Milk in Trivandrum Dairy: 1967-79.

Year	Purchase Price: Rs/litre
1967	1.11
1969	1.11
1973	1.13
1976	1.65
1979	1.75

Source: "Administration Report". Various Issues. Department of Dairy Development. op cit.

The above figures indicate that between 1967 and 1973, the purchase price was virtually frozen. The State had taken direct control of the dairy in 1967 on the grounds that the union had mismanaged the affairs of the dairy and had sacrificed the interests of the farmers.³⁸ The freeze on prices indicates that the priority of the State was the maintenance of urban milk supplies rather than ensuring good prices for farmers. Since the Government did not raise the purchase price of milk, despite numerous representations by farmers, they withheld supplies to the dairy. Thus, procurement fell from 3.77 MLPA in 1970-71 to 2.84 MLPA in 1973-74.³⁹ Procurement picked up again only after the Government agreed to raise prices.

The last criterion for evaluation is whether the organisations created by the State are financially viable

³⁸ "Administration Report". 1968. Department of Dairy Development. Government of Kerala.

³⁹ "Administration Report". Various Issues. Department of Dairy Development. op cit.

and self-sustaining. Table III.5 indicates that not one urban milk supply scheme was operating in profit. The accumulated losses increased from Rs 1.35 million in 1964-65 to Rs 6.37 million in 1975-76 before dropping down to Rs 4.29 in 1979-80. Table III.6 shows that of the thousand odd societies in existence in 1979-80, only half were profitable. This would indicate that the institutions created by the State to intervene in the market were weak and wholly dependent on State budgetary support both for their day-to-day activities and for investment. When the State itself began to run chronic revenue deficits it became increasingly difficult to continue sustaining these institutions.⁴⁰

This analysis reveals that State intervention in milk markets during 1960-80 had few positive impacts and a number of negative impacts. A positive impact was that co-operatives gave the farmer a choice which increased his bargaining capacity. However, as all the co-operatives in Kerala, together controlled only about 12.5% of the total marketable surplus in 1979-80, their impact was limited. The financial weakness of the State sponsored institutions and their inability to build sufficient processing capacity, have, as we have seen, constrained their ability to manage seasonal variations. It is difficult to identify precisely the reasons for this litany of failures. We shall attempt some tentative explanations.

⁴⁰ Discussion with officials of the Dairy Development Department.

The State's policy initiatives in the dairy sector, analyzed in this chapter, clearly indicate that the primary objective was the maintenance of urban supplies. The emphasis given to this objective forced the State to continue market operations even while they were draining the treasury. Further, the State appeared to have regarded its market intervention efforts as development efforts directed to achieving the goal of increasing per capita consumption of milk in Kerala by ensuring availability at below market prices.

Since these goals were not regarded as commercially viable objectives, fiscal prudence and profitability were not important considerations for either policy making politicians and bureaucrats or for the personnel manning the dairies. This resulted in such policy out-comes as keeping the sales price of milk low and maintaining high levels of supply even as the loss per litre kept on increasing. Thus, the consumer bias in policy resulted in these institutions turning from commercial institutions to development organs of the State, charged with the responsibility of increasing milk consumption without a concomitant responsibility for increasing production through price incentives.

The State had experimented with a variety of organisational forms- cooperatives, State dairies and a company. Despite the changes in form, control was still highly centralised. Neither the milk unions , the State

dairies nor the company had any real autonomy in policy or even over routine decisions. Thus, apart from pricing policies, the Government's permission was also required for all investment decisions. In addition, personnel could be appointed and their service conditions fixed only with the prior sanction of the Government. In the State dairies even small purchases over a small fixed amount had to get the clearance of the Director of Dairy Development. Such centralisation implied that field officials and dairy managers were neither required to exercise initiative nor be accountable for the performance of the units under their control. The erosion of the autonomy of the societies and the lack of accountability in the State dairies, were factors contributing to the inefficiency that often marked State intervention in markets.

Summary

In this chapter, we have analyzed the structure of milk markets in Kerala and found that despite a high degree of commercialisation, the market consisted of millions of marginal producers with a low per capita disposable surplus. The market was dominated by petty traders operating with low volumes. In such markets, the difficulties associated with collective action have prevented the emergence of efficient market clearing institutions. To correct these imperfections of the market, the State intervened both directly and through State-sponsored cooperatives. Ideological biases, as well as the

political and personal compulsions of State officials, often dictated the choice of the cooperative as the preferred organisational form.

The nature of the intervention - centralised control, consumer bias and fiscal indiscipline- contributed to the negative impacts of the intervention overshadowing some positive outcomes. Thus, on the one hand, State intervention contributed to the establishment of a network of farmers' organisations all over Kerala, through which, despite the absence of real autonomy, farmers could still play a modest role in influencing policy. More importantly, in places where the cooperative existed, the bargaining power of the farmer was increased.

These positive results were, however, nullified by the inability of these institutions to offer remunerative prices to the farmers, to generate surplus for investment, and, above all, in their inability to match supply and demand. Thus, on the eve of Operation Flood, two decades of State intervention in milk marketing had achieved few tangible results. However, the entire responsibility for this lack of success cannot be attributed to the State. The interest group process within the cooperative institutions and the free-rider problem affecting all of them were major contributory factors. We shall refer to these issues after an examination of Operation Flood in Chapter IV.

Interest Groups and Operation Flood in Kerala

Introduction

In chapter II, we had argued that urban interest groups had distorted agrarian policy to the detriment of farmer interests in Kerala. Food producers in particular had been negatively affected by State policy. In this and the following two chapters, we shall analyze the implementation of a programme that was specifically designed to endow farmers with the power to resist such external pressure. We shall show that in the context of Kerala's political economy, even institutions specifically created to protect agrarian interests are at best only partially successful.

The core argument that we advance here, is that programme outcomes can be predicted by analysing the exchanges between the major participants. Large rural development projects involving the participation of several agencies are often handicapped by authority structures in which the exercise of power is weak and diffused. Since these programmes inevitably have multiple objectives, a weak organisational structure could lead to confusion over goals. In these circumstances, the direction in which the programme evolves will depend upon which interest groups

are able to exercise effective control over the organisation.

The formal powers of the various groups can be inferred from the organisational charts. However, in the process of programme implementation, groups in control of valuable organisational resources or occupying strategic positions are able to allocate more of the organisation's resources to themselves. In the process, goal priorities change and the nature of the programme is often fundamentally altered.

We shall illustrate the above arguments with an analysis of Operation Flood (OF), the national dairy development programme launched in Kerala in the early eighties. OF was designed, (See Chapter I) to endow farmers with the power of collective action. However, we shall argue that this power is diluted by two sets of factors. First, OF is a large and complex programme with multiple objectives, designed and implemented by a central agency, following a national plan. The multiplicity of objectives leads to loss of focus, while the rigidity of the centralised model creates distortions in programme implementation.

Second, the underlying objective of OF is primarily political. We shall argue that OF attempted to wrest the power to frame and implement policies in the dairy sector from both the federal and state governments and to confer it on a new techno-bureaucratic managerial class who would

act on behalf of farmer interests. The formal organisational structure of OF institutions in Kerala reflect this political aim.

However, in the process of programme implementation, opposing interest groups acted in concert to prevent the realisation of this goal. The conflicts over the hidden agenda had several negative consequences. First, it created tensions within the organisation, which were skilfully exploited by interest groups opposed to the OF programme in Kerala. Second, a great deal of the organisation's resources, both managerial and financial, was devoted to handling these conflicts, resulting in diminished attention to the true aims of the programme. Third, powerful interest groups within the organisation were able to exploit the internecine conflicts to appropriate more of the organisation's resources to themselves.

This chapter is divided into two sections. The first section will briefly delineate the circumstances leading to, and the rationale for the introduction of OF in Kerala. In the second section we shall identify the various interest groups involved in the programme and analyze the implications of their different goals for the programme as a whole.

SECTION I

THE PROGRAMME

OF I aimed at augmenting urban milk supplies in the cities of Delhi, Calcutta, Bombay and Madras. The scope of the project was therefore considerably less than that of OF II, which covered almost all the provinces of India, including Kerala. The introduction of OF II into Kerala was therefore part of a nation-wide dairy development project, rather than a programme designed specially to meet the province's requirements.

The national objectives of OF can be summarised thus:

- (1) To enable some ten million rural milk producers' families to build a viable self-sustaining dairy industry.
- (2) To enable the milk producers to rear a National Milch Herd of some 15 million cross-bred cows and upgraded buffaloes.
- (3) To erect the infrastructure required to support a viable national dairy industry such as national frozen semen system, vaccine production and delivery system and the indigenous development of dairy processing and conservation methods.
- (4) To erect a national milk grid which will link the rural milk sheds to major demand centres.
- (5) To achieve a per capita daily consumption of 180 grams of milk and milk products in the course of the Eighties.¹

¹ "Report of the Evaluation Committee on Operation Flood-II". 1985. op cit.

To achieve the above objectives, the project called for the organisation of 10.20 million rural families in about 70,000 Anand Pattern Societies(APCO)². These societies would then be federated into a three-tiered structure, that would have APCOs at the base, district unions in the middle and a state dairy federation at the apex.

The underlying objective of this organisational structure, according to the programme designers, was to endow farmers with the capacity to manage their own affairs. The OF structure, therefore, claimed to possess the following features: (a) elected boards at society, union and federation levels, (b) bye-laws which guarantee that the organisation would be run on democratic lines and would be accountable to the farmers, (c) ownership of processing plants and other infrastructure facilities by farmer members and (d) autonomy in decision-making in such areas as pricing, marketing and the appointment of personnel.

OF had very ambitious multiple goals. First, it attempted to impose one particular organisational model on the entire dairy industry in India. Second, it aimed at producing a pan- Indian dairy market through the National Milch Herd and the National Milk Grid. Third, it hoped to ensure higher farm incomes by endowing farmers with the power of collective action. Fourth, it attempted to detach the power to frame dairy policy from the federal and provincial governments and entrust it to a techno-

² ibid.

bureaucratic organisation- the National Dairy Development Board (NDDB). The policies framed by the NDDB would be implemented not through the traditional State-dominated bureaucratic organisations, but through new farmer-owned, technocrat-managed structures created by the programme.

OF IN KERALA

As early as 1971, politicians in Kerala had been agitating for the inclusion of Kerala within the ambit of the programme³. However, despite persistent lobbying, Kerala was not included in OF I. All that Kerala was able to wring out of the NDDB in the mid Seventies was a report entitled "Dairy Development Project for the Districts of Trivandrum, Quilon and Alleppey." The project, as the title suggests, was very limited in its scope, confined as it was to three districts. Even this project did not get off the ground, as no funds were earmarked for the project either by the Government of Kerala or the NDDB.

The launch of OF II, with EEC and World Bank assistance, enabled the NDDB to offer a more ambitious project to Kerala. In a letter to the Chief Minister of Kerala, the NDDB Chairman offered to finance three separate dairy projects in Kerala. The first would be in the Travancore region and include the districts of Trivandrum, Quilon and Alleppey. The second would cover the districts of Ernakulam, Kottayam, Idukki and Trichur. The third

³ In a speech at the All India Dairy Conference held on February 8, 1971, the Minister for Co-operation and Agriculture, regretted the non- inclusion of Kerala in OF I and expressed the hope that the province would be included in the next phase of the programme. See: The Kerala Co-operative Journal. February, 1971.

project would be in Malabar and would cover the districts of Cannanore, Kozhikode, Malappuram and Palghat.

The three projects together was estimated to cost Rs 105.65 million.⁴ Funding for the projects was from two sources. The two projects in south and central Kerala would be funded directly by the NDDB using OF funds, while the Malabar project was to be funded by the Swiss Development Corporation (SDC)⁵. All the projects were to be implemented over seven years, starting in July 1978 and ending in June 1985.

The project planners gave themselves ambitious targets as can be seen from the following table:

TABLE IV.1
Physical Targets of OF in Kerala: 1979-85.

	Trivandrum	Ernakulam	Kozhikode	Total
Number of Societies	880	920	519	2319
No: Farmer Members	129,000	134,400	75,000	338,000
Incremental Processing Capacity(LPD)	220,000	160,000	125,000	505,000

Source: (1) "Operation Flood II, Dairy Development Project for Kerala". Indian Dairy Corporation. April 1980.
(2) "Swiss Aided Dairy Development Project in Cannanore District". NDDB. February 1980.

⁴ Letter dated 1/6/78 from V. Kurien, Chairman, NDDB to A.K Antony, Chief Minister of Kerala. Confidential Records of the Chairman, NDDB. 1991.

⁵ The Swiss aided project is formally known as the North Kerala Dairy Development Project (NKDP). Though the funding pattern is different, the project is the exact replica of the OF project being implemented in south and central Kerala. Therefore, for our purpose, we are not making any distinctions between OF and NKDP. We would regard the entire dairy development project in Kerala as OF.

We may recall (Chapter II above) that by 1979-80, there were already about 955 dairy societies with a total membership of 178,000. The new project proposed to double this figure. The most ambitious part of the project, however, was the proposed investment in processing capacity. The sheer scale of the effort can be gauged from the fact that in the twenty years from 1960 to 1980, the Government of Kerala had created a total processing capacity of only 68,000 Lpd. OF on the other hand, proposed to create in just seven years, an additional processing capacity of 505,000 Lpd. In addition, the NDBD also proposed to invest in a new cattle feed plant, a cheese processing plant and a five tonne milk powder plant.

OF, thus, constitutes an intervention on a massive scale designed to alter dairy markets in Kerala significantly. It is different from past interventions both in its scale and nature and in the organisational changes that it sought to introduce.

Transforming the Technical Base of the Industry

Analysis of the investment pattern reveals a very heavy bias towards processing and marketing:

TABLE IV.2

**Summary of Projected and Actual Cost Estimates of
OF in Kerala: 1980-91.**

(Rs in millions)

Pattern of Investment	1980 Projected*	March 1991 Actual
Investment in Processing & Marketing	118.34 (69.4%)	196.4 (88%)
Production Enhancement Programmes	29.12 (17.07%)	9.76 (4.39%)
Training and Project Implementation	23.09 (13.53%)	16.46 (7.61%)
Total	170.55*	222.62

Projected*= This was the estimate prepared for the period 1979-85.

Note: figures in brackets denote percentage to total cost.

Source: (1) "OF II, Dairy Development Project for Kerala".

op cit.

(2) Confidential records of the Kerala Co-operative Milk Marketing Federation (KCMMF).

The bias in favour of processing and marketing is striking. What is more significant is that in the process of implementation, the percentage of expenditure on this sector increased by nearly 20%, while investment that would directly enhance milk production declined by over 12%. This skewed investment pattern in the project estimates, reflects the priorities of the NDDB. The increased

expenditure on processing and marketing, during implementation reflects the ability of powerful interest groups within the organisation to allocate resources to themselves.

It is undeniable that OF transformed the technical base of the dairy industry in Kerala. Prior to OF, the dairy plants in Kerala were small with an average processing capacity of only 6000 Lpd. The biggest dairy plant in the province, the Ernakulam dairy, had an installed capacity of only 10,000 Lpd. In contrast, the new dairy at Ernakulam has an installed capacity of 100,000 Lpd. In addition, it is equipped to produce and store milk products such as butter and cream. The Alleppey dairy has installed sophisticated Aseptic packaging machines capable of processing 3500, 200 ml packets of UHT (ultra heat treated) milk per hour. This APS (Aseptic Packaging Station), is only one of four such stations in South India and its commissioning in 1989 represents for Kerala, a quantum leap in dairy processing technology.

Both in the size of the new processing units and the sophisticated nature of the technology employed, OF were a significant departure from past interventions. The changes in the technical base of the dairy industry was to have a significant impact in a number of related areas.

First, the large capacity of the new dairy plants required elaborate procurement machinery. A comparative analysis of the Trivandrum Regional Milk Producers' Union(TRCMPU) and the Calicut Milk Supply Union(CMS), the

largest of the pre-OF unions, will give some idea of the structural changes that OF was imposing on the traditional dairy industry in Kerala.

The CMS Union, on average procured 15,700 Lpd in 1988-89. The TRCMPU, on the other hand, procured 93,000 Lpd in 1988. The CMS union procured milk from 47 societies, while TRCMPU procured from nearly 500 societies in four districts. The size of the catchment area and the sheer volume of milk, necessitated the creation of a large procurement network involving chilling centres, road milk tankers and a large number of milk procurement trucks. As OF's declared aim is to capture 70% of the urban milk markets in Kerala, it is obvious that the already large procurement system will have to be further augmented. In fact, confidential records in the apex federation indicate that the programme coordinators visualise that an additional 90,000 Lpd of chilling capacity will have to be created to satisfy the requirements of the large processing plants.

The elaborate procurement and marketing network visualised by OF has three implications. First, given the low net marketable surplus of Kerala's dairy farmers, milk procurement systems have to be necessarily extensive. With each farmer producing only a few litres of marketable surplus, each society had an average procurement of around 200 Lpd⁶. This meant that as potentially rich milk producing areas were covered, new societies had to be

⁶ Records of KCMMF. 1991.

organised in more and more marginal areas. This has increased the unit cost of procurement as transport networks were extended further away from the processing and marketing centres.

Second, the large capacity and the sophisticated nature of the procurement and processing systems required heavy inputs of capital. Though the original OF project contemplated a total investment of only Rs 105.65 million, the latest calculations indicate that the total cost would be around RS 350.65 million⁷. Third, the sophisticated nature of the technology meant that the organisation was required to maintain a large pool of highly skilled and trained personnel both in the managerial and non managerial cadres.

Changes in the Organisational Structure

The proposed transformation of the institutional framework of the dairy industry was even more radical than the technical changes that we have analyzed above. Prior to OF, societies were organised first at the village level. Some of the societies, over a period of time, gradually evolved into district unions. The Malappuram union(See Chapter III), started as a primary society in 1951 and became a district union only in 1971. Traditional pre- OF structures, though creatures of the State, were nevertheless organisations that evolved in response to local requirements. OF structures, in contrast,

⁷ ibid.

were imposed from above in accordance with a pre-determined plan.

The plan called for a three tiered structure with the APCOS at the base, three regional unions in the middle and the Kerala Co-operative Milk Marketing Federation(KCMMF) at the apex. This structure was significantly different from the existing dairy institutions in Kerala. First, there were major differences in the functions and structure of the APCOS. Second, instead of the small district unions of the pre-OF period, OF had very large regional unions. Third, There was no single apex organisation that coordinated dairy policy in the pre-OF period. All the district unions were answerable only to the State, while the KLDMMB controlled only a few dairies in south Kerala.

Through a comparative analysis of pre-OF and OF institutions, we shall indicate below the nature of the changes that OF proposed to make and their implications:

(A) Primary Societies.

The differences between OF(APCOS) and pre-OF societies can best be analyzed by grouping them into two broad categories: (1) Membership Requirements and (2) Procurement and Marketing Systems.

1. Membership Requirements.

The APCO bye-laws provide that only an adult person who possesses a milch animal and "who during the 120 days previous to the date of application had poured milk

for at least 90 days" can become a member. To ensure that having become a member, he/she continues to be a dairy farmer, the bye-laws provide that if a member does not pour 500 litres of milk or does not supply milk for a total of 180 days during the previous year, he/she loses many of his/her rights including the right to vote and stand for office. These provisions were designed to ensure that non farmers are prevented from joining and subsequently taking over the society.

Pre-OF societies, however did not have any such requirements. Though any local resident, whether he is a farmer or not, can become a member, voting rights are restricted to those who supply milk to the society. But since the bye-laws do not demand the conditionalities mentioned above, it is far easier for non farmers to take over a traditional society than an APCO.

2. Procurement and Marketing Systems.

The most significant changes have been introduced in procurement and marketing. Several such changes can be distinguished. First, dairy societies are notoriously prone to free rider problems. They tend to starve dairies of milk during the lean season and dump their excess milk on them during the flush. The APCO system was designed to overcome the free rider problem. They were expected only to procure milk and after retaining 20% of it for local sales, had to send the balance to the dairies. APCOS were thus only procurement centres in the OF design. But pre-OF societies

were both procurement and marketing systems with less dependence on a centralised procurement and distribution network.

Second, the area of operation of OF and pre-OF societies were radically different. APCOS, reflecting their origin in the small villages of north India, were confined to small geographically compact areas. The pre-OF societies, reflecting the dispersed settlement pattern of Kerala, had extensive boundaries often covering several villages.

B Regional Unions

The programme called for the creation of three regional unions: The Trivandrum Regional Milk Producers' Union(TRCMPU), the Ernakulam Regional Milk Producers' Union(ERCMPU) and the Malabar Regional Milk Producers' Union(MRCMPU) based at Calicut. These unions performed by and large the same functions that the pre-OF unions performed, namely, the collection and distribution of milk. In addition, the new institutions took on the responsibility of distributing a variety of inputs such as subsidized cattle feed, veterinary care and fodder seeds. Thus, functionally, the new organisations were not too radically different from existing structures; but the scale on which they were organised was vastly different and this had a significant impact on the whole programme.

We had observed, that prior to the introduction of OF there were nine milk unions corresponding to the

original nine districts in Kerala. OF proposed to compress the nine unions into the three regional unions. Such compression resulted in the creation of three super unions with enormous resources at their command. A comparative analysis of the number of societies affiliated to the various pre-OF unions and those affiliated to the OF unions is revealing:

TABLE IV.3

Number of Societies Affiliated to District and Regional Unions: 1969-70 & 1993.

Pre-OF Unions	No:of Societies 1969-70	OF Unions	No: of Societies Proposed
Trivandrum	88	TRCMPU	880
Quilon	31		
Alleppey	19		
Kottayam	38	ERCMPU	920
Ernakulam	23		
Trichur	21		
Palghat	44	MRCMPU	519
Malappurum	20		
Kozhikode	47		
Cannanore	25		

Source: "Administration Report". Various Issues. Department of Dairy Development. op cit and confidential records of KCMMF.

The above table indicates that the proposed intermediate structures were huge organisations several times the size of the existing ones. This can lead to ambiguous outcomes in two crucial areas. First, there is asymmetry in the relationship between the regional unions and the affiliated societies. The small size of the pre-OF unions facilitated constant exchange of views and frequent consultations between them and their member societies. For instance between 1986 and 1990, the CMS union called over 10 general body meetings of its affiliated societies; but during the same period, the TRCMU called only 4 such meetings⁸. The constant consultations ensure that member societies have considerable access to decision makers. Thus, while the size of the OF unions confers on them the power to dominate markets, this is achieved at the cost of losing some degree of democratic control.

There is also asymmetry in the relationship between the regional unions and the apex federation. For reasons we shall analyze below, the institutional design deliberately strengthened the regional unions at the expense of the apex federation. Almost all the major activities of the programme including the organisation of societies, the distribution of inputs, the procurement, processing and marketing of milk, and the distribution of financial incentives to farmers and member societies are done by the unions. The apex federation has

⁸ Minutes of the Board meetings of the CMS Union and TRCMU: 1985-91.

only the functions of coordination and overseeing the construction of the new processing plants. This exclusion of the apex federation, which, after all, is the nominal head of the organisation, from all executive authority was to create considerable tension within the organisation. These tensions significantly altered the direction in which the programme evolved in Kerala.

The second area in which organisation size was to have serious consequences was in personnel policy. The huge size of the OF institutions and the varied and sophisticated nature of their activities demanded the maintenance of a large number of skilled personnel. A comparative analysis of the staff structure of the CMS union and the proposed structure for TRCMPU is illuminating. The chief executive officer of CMS was its secretary, and he had under him less than half a dozen officers. TRCMPU on the other hand had over 60 different categories of officers and workers including a Managing Director, a General Manager, senior managers, managers and numerous categories of executive officers.

The officer to worker ratio was 1:33 for the CMS union in 1989⁹. This would indicate that much of the activities of the union did not call for highly trained personnel. However, in TRCMPU, the ratio increased from 1 officer for every 7.06 workers in 1986 when the union was

⁹ Confidential records of the CMS union.1991.

formed to 1: 5.76 in 1991¹⁰. Apparently, the union required far more trained personnel than the CMS union to start with and as the programme evolved, the bias in favour of highly skilled personnel seemed to be getting stronger.

Confirmation of this bias can be obtained by analysing the recruitment pattern in TRCMU between 1986 and 1991. The analysis reveals that whereas the recruitment of workers went up by only 13%, that of officers went up by 44% ¹¹. Most of the officers recruited during this period, had advanced qualifications such as veterinary and engineering degrees and MBAs. The presence of a large body of young and formally well educated officers had, as we shall show, profound implications for the direction in which the programme was evolving in Kerala.

C. The Apex Federation.

Under OF I the necessity for an apex federation was not envisaged. However, with the launching of OF II, the impossibility of the NDDB directly organising milk unions all over India soon became apparent. Hence, provincial level federations were created with the limited objective of organising the milk unions and overseeing the construction of the new processing plants. Once these preliminary functions were completed, the apex federation was expected to transfer all its powers to the intermediate

¹⁰ Confidential records of TRCMU. 1991.

¹¹ ibid.

organisations and confine itself to coordinating dairy policy.

This organisational design (see below) was primarily motivated by political considerations, which demanded a weak organisational structure where the nominal head - the apex federation - would be dependent on its subordinate agencies. But having once exercised power, the apex federation was disinclined to commit organisational suicide. The resultant tensions within the organisation was exploited by external agencies to the detriment of the programme.

We can now summarise the discussion on the structures that OF proposed to create in Kerala. First, we have seen that APCOS were designed to overcome the deficiencies of the pre-OF societies. Through rigid entry requirements, it sought to prevent the societies from being taken over by non-farmer interests. Second, we have noted that the intermediate structures created by OF were far more complex organisations than the earlier milk unions. Third, in place of the segmented market served by local milk unions, OF attempted to create a pan-Kerala market served by a pan-Kerala organisation, which, in turn, was part of a national organisation. Thus, though the avowed objective of OF was to wrest power from centralised State agencies and confer them on an autonomous farmers' organisation, the model that the programme adopted was rigidly centralised both in its design and implementation.

The Rationale for OF in Kerala.

Given the size and scope of the intervention, it is relevant to question the rationale for the OF programme in Kerala. Despite two decades of sustained State intervention, dairy markets were still imperfect in Kerala. Markets could not cope with lean and flush variations while resource constraints limited the ability of the State to invest further in the dairy sector. It can therefore be argued that intervention by an external agency was necessary.

However, the nature of milk markets in Kerala posed serious obstacles to the implementation of a massive project such as OF. The marketable surplus of the Kerala dairy farmer is, as we have observed, very low. A recent study has indicated that of all the major provinces of India, Kerala has the highest percentage of households owing only one milch animal. In Kerala, 68.7% of the dairy households possess only one animal, while the corresponding All-India figure is 44.9%. Conversely, as against the All-India average of 13.6%, only 2.2% of dairy farmers in Kerala possess more than 4 milch animals ¹².

These figures confirm the belief that the dairy sector in Kerala, though highly commercialised, operates on very low marketable surpluses. Even within the province, there are major differences. An NDBD study in 1980 found that while the density of milk production per square

¹² "Base Line Study of Operation Flood Areas: 1988-89". 1990. op cit.

kilometre of geographical area was 59 LPD in south Kerala, it was only 29 LPD in north Kerala¹³. These characteristics of the dairy industry were well known to the NDDB team who prepared the project report on OF in Kerala. In confidential interviews to the author, the members of this team admitted that they did not find adequate milk potential in Kerala to sustain a major dairy development programme¹⁴ (author's italics).

A second major obstacle to the OF pattern is the increased consumption of milk in rural Kerala. A comparative analysis of consumption expenditure on milk and milk products shows that rural consumption had increased sharply in Kerala in the course of the Seventies:

TABLE IV.4

Average Monthly Expenditure on Milk and Milk Products-Rural Expenditure as Percentage of Urban Expenditure: 1972-78.

India		Kerala	
1972-73	1977-78	1972-73	1977-78
54.5%	57.8%	49.7%	70.6%

Source: Sarvekshana: Vol:II(3), January 1979; Vol:IX (3). Quoted in Nair K.N and Dhas A.C: " Social Implications of the Commercialisation of Milk Products in India." Centre for Development Studies. No date.

¹³ " Swiss Aided Dairy Project in Cannanore Milk shed". NDDB. Anand. 1980.

¹⁴ Interviews with the members of the original project planning team at Madras and Bangalore. April. 1991.

The above figures indicate that while at the All India level, rural expenditure as a percentage of urban expenditure had hardly increased, in Kerala it had increased by more than 20%. This would indicate that rural demand for milk was fast catching up with urban demand. This is primarily because purchasing power is diffused in Kerala. A district-wise analysis of per capita income shows that there is little difference between the incomes of the primarily rural districts and the more industrialised districts. For instance, Idukki, which is largely rural had a per capita income of Rs 2006 in 1989, as against a highly industrialised district- Ernakulam's income of Rs 1899¹⁵. Taken together, low marketable surplus and high rural demand is problematic for any programme that based its central strategy on feeding urban centres through the extraction of large volumes of milk from high- productive, low-consumption rural areas.

A third major constraint is the paucity of feed and fodder resources in Kerala. A study conducted in 1983 estimated that Kerala requires six million tonnes of roughage per annum. But the available stock is only about 3.85 million tonnes.¹⁶ Since the report was prepared, the availability of paddy straw, which constitutes the bulk of the roughage has further declined. Kerala is also acutely deficient in concentrates. Various experts have estimated

¹⁵ "Economic Review". 1990. op cit.

¹⁶ See Shivanandan P.K : " Milk Production in Kerala- An Analysis in the context of Operation Flood." Centre for Development Studies. Trivandrum. 1983.

that between 70% to 80% of the province's requirements are imported from outside¹⁷. Increased commercialisation of the dairy industry under OF is bound to aggravate the mismatch between supply and demand.

The foregoing discussion indicates that Kerala did not have any of the comparative advantages necessary for mounting a dairy programme on the scale of OF. It had a poor resource base and low marketable surplus while the rural demand for milk was high. These factors were known to the highest policy makers of NDDB. The Chairman of NDDB in an interview with the author conceded that while finalising the OF project report, the NDDB had initially come to the conclusion that Kerala was unsuitable for being included in the programme¹⁸ (author's italics).

However, despite the unfavourable conditions and the scepticism evinced by the NDDB, from the planning team to the Chairman himself, OF was launched in Kerala. The explanations offered by the key actors are not entirely convincing. The Chairman of NDDB argued that it was the enthusiasm of the then Agriculture Minister, K.R Gouri, that finally convinced him to fund the project in Kerala.¹⁹ The former Chief Secretary of Kerala during whose tenure,

¹⁷ No firm figures are available regarding the extent to which Kerala is dependent on external markets for concentrate feed. Nair K.N, calculated that over 80% of the requirement is imported from outside. See: "Cattle Development in Kerala- Trends and Prospects". Economic and Political Weekly. Vol:XXV. No:36. 1990. The KCMMF's estimate is marginally lower at 70%. Confidential records of KCMMF. 1991.

¹⁸ Interview with V. Kurien. Chairman. NDDB. Anand 22/7/91.

¹⁹ ibid

as Commissioner for Economic Development, the programme was launched in Kerala, suggested that chronic milk shortages forced the government to approach the NDBD to fund the project ²⁰. While these explanations may have a kernel of truth, they surely do not explain how a major dairy project came to be launched in a province that apparently had such negative potential.

The availability of cheap finance is one valid explanation. The chronology of the implementation of OF in Kerala gives credence to this argument. We have observed earlier, that despite preparing a project report in the Seventies, the NDBD made no move to finance a dairy project in Kerala, until funds were made available by the World Bank and the EEC in the late Seventies. Even then, the programme was confined to south Kerala with its markedly greater potential than north Kerala. However, when the SDC offered to finance a dairy project in Malabar in the early eighties, OF was extended to north Kerala. Thus, the expansion of the project from a small dairy programme confined to the three districts of south Kerala to one covering all 14 districts appears to have been significantly influenced by the availability of external funding. However, this is but a partial explanation. We would argue that more fundamental reasons were responsible for the designing and the subsequent launching of a

²⁰ Interview with V Ramachandran, former Chief Secretary to Government of Kerala. Madras. 2/4/1991.

project, which at first sight had little chance of succeeding.

SECTION II

Interest Groups and Operation Flood.

The various interest groups involved in the implementation of OF were: 1. The national technocracy as represented by the NDDB. 2. The State elites as represented by council of ministers and the higher bureaucracy. 3. The dairy bureaucracy as represented by the officers and staff of the Dairy Development Department. 4. The co-operative elites as represented by the leaders of the Kerala Societies Association and the leaders of the various milk unions. 5. The organised labour force in the dairy industry.

1. The National Technocracy.

The NDDB and its sister organisation, the IDC, were set up by the Government of India with the specific objective of implementing OF. Following the report of the Jha committee in 1985, the two organisations were merged into a reconstituted NDDB. Though set up on government initiative, the NDDB has complete autonomy in staffing and investment decisions. Its access to and autonomy in dealing with external financial institutions is also unmatched by other public institutions in India²¹. Further, the

²¹ For a discussion on the NDDB, See George S. 1985. op cit and Gertsch L .1990. op cit.

Government of India has ceded to the NDDB a great deal of its policy making power in the dairy sector.

The explicit aim of the NDDB as spelt out in their various appraisal reports, is to increase milk production in Kerala and thereby increase farm incomes. However, our analysis of the investment pattern in the previous section, revealed that the NDDB was far more concerned with increasing urban milk supplies than increasing rural milk production. The detailed project report makes this clear when it states that " the target is to capture 70% of the urban milk markets by the final phase of the project".²² This emphasis on building up processing capacity and underplaying production enhancement programmes was based on two assumptions. First, since the Government of Kerala had already spent considerable resources on increasing production, there was no necessity for the NDDB also to spend in this sector. The second assumption was the belief widely held in the NDDB, that once markets were found for their produce, farmers will automatically produce more. However, behind these well articulated beliefs, it is not difficult to expose the hidden bias in this orientation. Processing and marketing are, after all, activities performed by trained technocrats, whereas production is carried on by millions of marginal dairy farmers. It is therefore rational to expect that the investment pattern

²² "Operation Flood II: Sub project detailing for Kerala." No Date. op cit.

would reflect the priorities of the technocrats rather than that of the producers.

The implicit aims of the NDDB are far more difficult to decipher. We shall however advance the hypothesis that the underlying rationale for the OF programme in Kerala was political rather than economic. The NDDB believed that for far too long, the State had dominated policy making and programme implementation in the dairy sector, to the detriment of the interests of the farmers. OF aimed at de-emphasising this role by creating farmers' organisations which would be insulated from State interference. The presence of a national technocracy with the necessary know-how and financial clout, it was believed, would constrain the ability of the State to adversely affect farmer interests.

These ideas have been given the status of a governing ideology by V Kurien, the Chairman of NDDB. In an interview with the author in July 1991, V Kurien emphasised the necessity for the creation of what he called "parallel democratic structures". He was of the opinion that the existing democratic structures- the party system and the government- were dominated by shortsighted political leaders and career civil servants who had appropriated the bulk of the nation's resources for their own use.²³ Co-

²³ At the time I met him, V. Kurien was particularly angry with the bureaucracy. It appeared that for the first time a full secretary had been appointed in Delhi to frame and co-ordinate dairy policy in India. The Chairman took this as a personal affront as the NDDB had been setting the national agenda for dairy development for more than two decades. He apparently thought that the government was trying to recapture the territory it had lost to the NDDB.

operative institutions, he thought, could offer a viable alternative to the existing party system in mobilising the Indian peasantry for collective action. He believed that it was the historic mission of the NDDB to create institutions that would endow them with necessary financial and organisational power to wrest their due share of the nation's resources.

Dr Kurien's vision of empowering the Indian peasantry essentially consisted of creating an organisational structure owned by farmers, but controlled by technocrats and from which the State would be carefully excluded. The strategy to exclude the State consisted of two parts: one long term and the other short term.

The long term strategy was to dilute the *de jure* control that the State exercised over the co-operatives in India. Co-operatives in India are largely the products of deliberate policy initiative by the State. Over the years, a plethora of rules and regulations have evolved to control and direct the activities of a co-operative from its inception. The Kerala Co-operative Societies Act of 1969, for instance, is an elaborate document, which prescribes among other things, the rules and procedures by which a co-operative may be registered, what its area of operation can be, how its bye-laws are to be prepared, how they are to be amended; detailed guidelines on how director boards are to be constituted, how the day to day activities of the society is to be carried on and how the profits are to be disposed of.

However, the most troubling aspects of the Act are the powers of the Registrar of Co-operatives. Four provisions of the Act are especially noteworthy. First, the Registrar has the power to refuse a society registration, if in his opinion, the society is not engaged in "sound business". This confers enormous discretion on the Registrar to decide what is sound business and what is not. Second, even if a society is not willing to amend its bye-laws, the Registrar, through an executive direction can amend the bye-laws *suo motto*. This power confers on the Registrar the ability to alter the basic characteristics of a society without the consent of the members.

Third, society presidents can stand for higher elective office only if their society is given a good classification by the audit inspectors of the Co-operative department. Since they are subordinate officers of the Registrar, audit classification can be influenced by the Registrar, giving him enormous powers to decide who can stand for higher office. Fourth, Section 32 of the Kerala Co-operative Act, provides that the Registrar may dismiss an elected committee, if in his opinion it acts against the interests of the society or "wilfully disobeys or wilfully fails to comply with any lawful order or direction issued under the Act or rules" by the Registrar. In other words an elected committee can be dismissed if the Registrar comes to the conclusion that it has disobeyed him.

It is clear that the Registrar has enormous powers to decide whether a society needs to be registered,

what its activities should be, who should be elected to run it and finally whether he/she should be permitted to continue running it. The Registrar, though a statutory official under the Act, is a transferable government official. So, a great deal of pressure is often brought on him to manipulate co-operative structures for the short-term political advantage of the ruling party. Over the years, the NDDB has lobbied hard, both at the national and provincial levels, to circumscribe these discretionary powers of the Registrar by amending existing Acts. However, the amendment of acts of Parliament is necessarily a lengthy process.

The short term strategy, therefore, has been to ensure that policy making in, and operational control of the dairy industry is removed from the State. The NDDB sought to achieve this objective through three strategies. It demanded that all the assets owned by the State in the dairy industry should be turned over to the new OF institutions. By clause II of the agreement signed between the Government of Kerala and the NDDB, the state government agreed to "transfer to the co-operative institutions..... such dairy plants, chilling facilities and other assets for milk production-enhancement belonging to the State Government and/or agencies controlled by the State Government and located in the Project Area".²⁴ The agreement further stated that the

²⁴ "Agreement between the Government of Kerala and the Indian Dairy Corporation". Government Order: G.O(P) No.183/79/AD.

State should entrust the OF organisations with the responsibility of providing various services such as artificial insemination, vaccination and transfer of technical information, currently performed by the various State departments. In the discussions following the signing of the agreement, the NDDB Chairman implicitly called for the abolition of the State departments of Dairy Development and Animal Husbandry.²⁵

The second strategy was to ensure that once the existing functions were taken over, the State was not permitted, at a subsequent date, to reappropriate the powers it had already conceded. To ensure this, the agreement expressly forbids the State to start any new dairy institution that would pose a threat to OF.²⁶ The State was also required to promise that it would not interfere with the autonomy of the OF institutions, especially in such areas as pricing, investment and personnel policy. The sub-text in this agreement was that

Agriculture (Animal Husbandry) Department. Government of Kerala.
Trivandrum. Dated 7/4/79. P:3.

²⁵ In a discussion with the Minister for Agriculture on 13/10/1980 at Anand, V Kurien said that since the apex federation had now come into being, the functioning of other agencies such as the KLDMMB, the departments of Animal Husbandry and Dairy Development "should be so coordinated that the responsibility of dairy development and animal husbandry remain restricted only to the federation in its area of operation". This was the diplomatic way of demanding the abolition of the departments in question. "Summary record of discussions held between K R Gouri, Minister for Agriculture and Social Welfare, Government of Kerala, and Dr: Kurien, Chairman NDDB ". October 1980. Anand.

²⁶ "Agreement between the Government of Kerala and Indian Dairy Corporation ". 1979. op cit.

if the State violated its conditions, the NDDB would restrict the flow of funds under the programme. Taken together, the provisions of the agreement amount to a significant diminution of the State's power. However, the NDDB was still apprehensive about the genuineness of the State's commitment to the autonomy of institutions. It feared that once all the funds have been disbursed, the State might attempt to reestablish control.

Therefore, the third strategy was to prevent this by designing OF institutions in such a manner as to minimise the government's role in them. The first task was to limit the number of government nominees on the Board of the apex federation. The first board constituted in January 1980, consisted of 4 government officials and one representative of the NDDB. By 1984, the NDDB had succeeded in limiting the number of government representatives to four in a board which now had a strength of 15 (9 representatives of "farmers", two nominees of the NDDB, the MD, who is usually a government official and three other nominees of the state government).

In addition to reducing the number of government representatives on the Board, the NDDB also designed the organisational structure in such a way as to ensure that effective power is exercised by the intermediate structures. We have noted that all the major activities involved in the programme, including the organisations of societies, the supply of subsidized inputs and the collection, processing and marketing of milk was performed

by the regional unions. In addition, the apex federation was denied the power to raise resources. Day to day expenses were to be met out of the contributions made by the regional unions. Bereft of executive authority and denied financial autonomy, the apex federation was designed to play a limited role of coordinating dairy policy.

This institutional design of empowering the intermediate structures at the expense of the apex federation was part of the strategy of limiting the influence of the State over OF institutions. The NDDB calculated that apex institutions are more susceptible to a take over by the State than intermediate structures. Apex institutions are usually located at provincial headquarters near the centre of State power. Moreover, nominees of the State to the apex board will usually be senior bureaucrats, such as a Secretary to Government and departmental heads who carry considerable clout. They are more liable to overawe co-operative leaders than the comparatively junior officials who are usually nominated to the boards of the regional unions.²⁷

²⁷ The State nominees to the apex federation consist of the Secretary to the Department of Animal Husbandry, Registrar of Co-operatives- both IAS officers, and a Joint Secretary from the finance department. In addition, the MD of the apex federation is usually another IAS officer. On the other hand the government nominees to the board of ERCPMU consisted of two junior officials of the Co-operative and Dairy Development departments. In the highly hierarchical State structures of Kerala, these officials enjoy much less prestige and power than the officers nominated to the apex federation. Consequently, co-operative elites and the technocracy enjoy greater relative power in the intermediate organisation.

The exclusion of the State from decision-making forums did not mean the automatic empowerment of the farmers or their representatives. Of institutions were designed to be farmer-owned, but technocrat-managed. The NDDB sought to ensure the primacy of the technocracy through two key committees: the programme committee and the personnel committee. The programme committee is organised at the apex federation level and its primary function is to co-ordinate the activities of the various regional unions. To ensure that the technocracy remains in effective control of the programme, the bye-laws provided that the committee should consist only of technocrats.

The personnel committee had enormous strategic significance. These committees recruited the key personnel, decided promotions, pay scales and related service matters. It was, therefore, important to the NDDB that this committee should not be dominated by any other interest group. The composition of these committees was carefully chosen. The personnel committee of the federation for instance, consisted of the following: the Chairman of the Federation; a representative each of the State and the NDDB; and the MD of the federation. This composition meant that given the NDDB's control over financial resources, only a coalition of disparate interest groups could prevent the technocracy from exercising de facto control in the committee.

2. State Elites.

We had noted in the previous section, that the Government of Kerala had been pressing for the inclusion of Kerala in the OF programme since the early Seventies. Interviews with key civil servants connected with the programme reveal that the government was motivated by three sets of considerations:²⁸

First, urban consumer groups were increasingly critical of the chronic milk shortages in the urban centres of Kerala. A study by Nair T.S, showed that milk markets which were in equilibrium during the sixties, had by the late seventies suffered from severe distortions:

Table IV.5

Estimated Demand for Milk in Kerala: 1964-65 & 1977-78

Year	Production	Demand
1964-65	204,000	204,000
1977-78	702,000	870,000

Source: Nair T.S: 1988. op cit.

The disequilibrium was more severe in Trivandrum and Calicut cities, where the shortages were a source of great embarrassment to the government. In Calicut, consumers had to book several days in advance if they wanted milk in excess of their daily quota. A survey

²⁸ Interview with V Ramachandran, former Chief Secretary to Government of Kerala. Madras. 2/4/1991

conducted immediately prior to the extension of the OF programme to Calicut, showed that while the city had an effective demand of about 97,000 Lpd, the CMS union was able to supply only about 25,000 Lpd ²⁹. The balance was met irregularly by the informal sector. The pressure on the State to solve the shortages was acute, as ministers were subject to increasing criticism in the press and the legislature.³⁰

The second consideration was the potential that OF held for ameliorating Kerala's unemployment problem. Shivanandan P.K estimated that the programme would create direct employment of about 2500 persons and generate additional indirect employment of 125,000 man days at an incremental cost of RS 1600 per man day.³¹

Third, the government believed that the Animal Husbandry section was the key to the revival of the entire

²⁹ " Marketing Plan for Augmenting Liquid Milk Sales in Calicut". KCMME. 1988.

³⁰ In an interview to the author on 2/4/1991, the former Chief Secretary to the government, admitted that milk shortages was an overriding concern with the government, while agreeing to the OF programme.

³¹ Shivanandan P.K 1983. op cit. (A former Managing Director of KLDMMB, Shivanandan was associated with OF during its, initial planning phase) Since the unit cost of creating jobs in the industrial sector would be far higher than the figures just quoted, planners and politicians were very sanguine about the employment potential of the programme.

The former minister for dairy development used to declare in public meetings that every additional 8 litres of milk produced will create a job in Kerala. The minister informed the author that he had got these figures from a World Bank publication. However, the important point is not whether the figures are accurate or not, but that ministers and bureaucrats were convinced that investment in this sector would create substantial job opportunities in Kerala.

agriculture sector in Kerala. We had noted in Chapter II that this sector was the most dynamic sector in Kerala. Ministers and planners believed that further investment in this sector would have ripple effects in the entire agrarian economy. A post-facto rationalisation of this belief can be seen in a confidential paper prepared in 1987 for the incoming Communist-led ministry. This paper entitled " Rationalisation for Taking up Animal Husbandry Sector for Increasing Production and thus Enhancing State Income"³², argues that since market conditions are favourable to the Animal Husbandry sector, further investment in this sector, will produce spectacular results in the short run. In a stagnating agrarian economy afflicted by frequent changes of government, these arguments of quick and spectacular results would appear particularly seductive.

The above arguments, though valid in themselves, do not fully explain the readiness with which the Government of Kerala adopted the OF programme. OF represented a diminution of the State's control over a major development programme. The State was required to hand over control of all existing dairy infrastructure to the new federation. Further, the State had to give an undertaking that it would not interfere in the day to day affairs of the organisation. Such self-sacrifice is paradoxical in a polity used to subverting institutions and

³² Confidential memo prepared by the Secretary to Government, Department of Animal Husbandry, for the Minister for Civil Supplies and Dairy Development. Government of Kerala. 1987.

programmes for political gain. However, the rationality of such actions becomes apparent, once we delineate the political gains that OF bestows on political actors. We shall illustrate this by analysing the decision to locate a dairy plant and a cattle feed plant in Alleppey district.

The Alleppey dairy plant represents an instance of political expediency triumphing over sound commercial sense. Prior to OF, Alleppey's urban milk demand was met by a small plant with a capacity of 6000 Lpd. In place of this plant, a new plant with a capacity of 60,000 Lpd was planned. With a similar capacity in the neighbouring district of Quilon and a new 100,000 Lpd plant in the nearby district of Ernakulam, there was obviously a problem of excess capacity at Alleppey. The mid-term appraisal team which visited Alleppey during the early eighties observed that " economic organisation of procurement activities around Alleppey would not be immediately feasible ... It would also not be feasible to appreciably expand milk marketing in Alleppey and its suburbs within the project period"³³. Hence the team recommended that the dairy should be scaled down to 30,000 Lpd. However, as construction had already started with the larger capacity in mind, considerable expense was incurred in modifying the project. The economic irrationality of the project can be discerned

³³ " OF II in Kerala- A Mid Course Correction Report". NDDB. Anand. 1985.

from the fact that as late as June 1991, the plant was operating only at 28% of its originally planned capacity.³⁴

The case of the Pattanakkad cattle feed plant, also located in Alleppey district, is even more illuminating. Ideally, location decisions on cattle feed plants in Kerala should take into consideration a number of factors: first, its nearness to raw material markets. Over 90% of the raw material required for compounded cattle feed in Kerala is imported from outside the province. This would indicate that the plant should be located as close to the border as possible so as to minimise the cost of transporting large quantities of bulky raw materials such as rice bran and sunflower cake. However, Pattanakkad is nearly 200 kms from the Palghat pass through which the bulk of goods is transported into Kerala. Second, in India, the transport of goods by rail is cheaper than road, especially over long distances. Pattanakkad, however, does not have a rail head. Consequentially, raw materials have to be unloaded at the nearest rail head in the neighbouring district of Ernakulam and transported by lorries to Pattanakkad. Internal studies have shown that due to its location in Alleppey district, the plant had to incur an additional cost of over RS 1.5 million every year³⁵.

³⁴ Confidential records of KCMMF.1991.

³⁵ The federation has an old cattle feed plant in Palghat district. A comparative analysis of transportation costs for Pattanakkad and the Palghat plants show that the former has to incur on an average Rs 50 per tonne more in transportation costs. Confidential internal memo prepared for the Managing Director. No date.

The two plants were located in Alleppey district despite the obvious negative economic consequences of the choice. The political nature of the decision becomes clear when we note that the then Agriculture Minister, who was primarily responsible for introducing OF into Kerala, comes from Alleppey district. The location of two major new plants conferred on her considerable political capital. First, the projects raised her profile in the district and enabled her to reap considerable electoral gains. Second, the new projects generate employment opportunities that can be used to reward supporters and followers.

The above discussion clearly indicates that economically irrational decisions are perversely, nonetheless politically rational. Further, we can infer that apart from notions of the public good, political leaders in Kerala were motivated by the potential political benefits that OF can confer on them. This would explain the rapidity and ease with which the Government agreed to surrender much of its policy making authority to an external organisation such as the NDB.³⁶

³⁶ The former Chief Secretary to the Government of Kerala, had disclosed to the author that the State Cabinet was initially divided over OF. Many ministers were reluctant to surrender control over dairy policy. They were won over by the size of the project and the potential political benefits that such a massive project will confer on the government that initiates it. Interview with V Ramachandran, Former Chief Secretary. Madras. 2/4/1991.

3. The Dairy Bureaucracy.

The response of the dairy bureaucracy in Kerala was more ambiguous. It had obvious reasons for welcoming a programme that proposed to invest over Rs 200 million in the dairy sector. Since the mid Seventies, the dairy department had not been involved in any major development project. Further, by the beginning of the Eighties the budget of the department had declined in real terms from RS 3.92 million in 1975-76 to Rs 2.00 million in 1979-80 (1970-71 prices).³⁷ OF was therefore initially welcomed by the department, as it believed that the funds would be channelled through it.³⁸

However, the NDDB's insistence that OF funds would be channelled only through OF institutions and its demand that the department should be wound up constituted a serious threat. An analysis of the department's budget shows that the department was being increasingly marginalised:

³⁷ "Administration Report". Various Issues. Department of Dairy Development. op cit.

³⁸ This was a reasonable assumption to make, as similar programmes funded by the World Bank, such as the Training and Visit (T&V) and the Social Forestry programmes were implemented by the Agriculture and Forestry departments respectively. These departments had used the opportunity to create more posts and purchase new equipments and vehicles. The departments therefore derived considerable benefits from the programmes.

TABLE IV.6

Abstract of Plan and Non-Plan Expenditure of the Dairy Development Department: 1983-90.³⁹

Rs in millions. 1970-71 prices.

	1983-84	1985-86	1987-88	1988-90
Plan	2.77 (53%)	3.15 (49%)	2.18 (34%)	2.29 (34%)
Non-Plan	2.49	3.30	4.18	4.41
Total	5.26	6.45	6.36	6.70

Note: Figures in brackets denote percentage to total.

Source: "Administration Report". Various Issues. Department of Dairy Development Department. op cit.

The above figures show that since OF started in Kerala, the plan funds available with the department had declined both in relative and absolute terms. This would indicate that while the department's role in dairy development had declined, it continued to maintain a large bureaucratic structure.⁴⁰ This structure still had a number

³⁹ Plan funds refer to funds that are ear-marked for new developmental projects, while non-plan funds are used mainly to defray staff and administration costs and to fund continuing programmes. The level of plan funds at the disposal of a department is usually a reliable indicator of the department's ability to wrest more resources from the State.

⁴⁰ The department which had a skeleton staff of only 91 in 1963-64 had by 1988-89 grown into a huge structure with 920 staff. Administration Reports of the Dairy Development Department. Various Issues.

of residuary powers. First, the Joint-Registrar (Dairy), functioned under the control of the Dairy Director. His powers could be used to harass the opponents of the department in the dairy sector. Second, through the powers of inspection, department officials could still exercise control over all dairy societies, including APCOS. Third, through its control over the non-OF funds disbursed by the State, the department could selectively reward societies and thereby create allies among the dairy societies.

4. Co-operative Elites

There are conceptual problems in identifying co-operative elites in the dairy industry. First, the co-operative leadership is very heterogenous with few common bonds. Society presidents are drawn from a variety of backgrounds such as trade, the professions and increasingly in recent years, professional politicians. Second, the institutional structure created conflicts of interests within the co-operative leadership. The primary co-operative's interests, for instance, are best served by free riding on the dairy plant's facilities - dumping milk during flush and starving it during the lean. The interests of the Union leadership that runs the plants, on the other hand, are best optimised by imposing a quota during the flush and maximising the inflow during the lean. These opposing economic interests lead to constant conflicts within the co-operative leadership. Third, the segmented nature of milk markets in Kerala produced co-operative

institutions that had few lateral linkages. Prior to OF, the various milk unions in Kerala had few common forums through which closer organisational links could be forged.

These attributes of the co-operative leadership explain, in part, the difficulty in identifying the co-operative elites as a coherent and homogenous interest group with common aims and a shared ideology. The launching of OF has sharpened the existing divisions within the co-operative elites. To explain this, we need to sketch briefly the attempts made by the co-operative elites to form a pan-Kerala pressure group.

We observed in Chapter II that the CMS Union was organised with a view to maximising urban milk supplies. The neglect of producer interests by the managing committee, led to the formation of the first producer pressure group in the dairy sector in Kerala. In 1952, the primary dairy societies of Calicut district came together to form the Kozhikode Milk Societies Association. The primary aim of the association was to enhance the bargaining position of the societies which supplied milk to the CMS Union. The launching of the Calicut milk supplies scheme in the early sixties, afforded the association the opportunity to play a more ambitious role. In return for the investment made by the State, the CMS Union was obliged to amend its bye-laws to give greater representation to farmer interests.

The Societies' Association exploited the opportunity by capturing the management of the CMS Union.

The office bearers of CMS, could henceforth be elected only with the concurrence of the leadership of the association. Further, in matters affecting the vital interests of the producers, such as producer price and bonus, prior concurrence of the association leadership was necessary before the CMS management could take a decision. This system soon spread to the neighbouring district of Malappuram.

The success of the Malabar societies inspired societies in south Kerala to think about a pan Kerala organisation. In 1970, a few of the prominent leaders of the dairy co-operatives met in Quilon and decided to organise an "All Kerala Societies Association". District associations were soon set up in all the districts and the Malabar association also merged with the new pan Kerala organisation. By the mid Seventies, the association was claiming a membership of over 1000 societies.

However, though a pan Kerala organisation had come into being, conditions in south Kerala were radically different from those prevailing in Malabar. In the latter region, as we have observed above, the Societies' Association effectively controlled the milk unions; but in south Kerala the association faced the State which owned most of the processing facilities. Moreover, the co-operative leadership here were excluded from any significant role both in policy formulation and implementation. Consequentially, the relationship between the co-operative elites and the State was more strained in

south Kerala than in Malabar. The late Seventies witnessed a series of direct actions by the dairy farmers. Under the leadership of the Societies Association, farmers organised rallies, "dharnas" and sit-ins against the State for its alleged anti farmer activities.⁴¹

Operation Flood had a differential impact on the fortunes of the co-operative elites in south and north Kerala. The co-operative elites in the south generally welcomed the programme while their counterparts in the north opposed it. The latter have attempted to block the expansion of the programme into Malabar by a variety of means. First, they attempted to prevent or postpone the integration of the CMS and Malappuram Unions with OF institutions.

Second, the co-operative elites in Malabar have been advising the primary societies not to convert their societies into APCOS. Consequently, the situation in Malabar in 1990-91 was very fluid with a variety of societies existing simultaneously. A study commissioned by the federation showed that out of the 519 societies in Malabar, only 148 (29%) are fully fledged APCOS ⁴². The remainder are only partially converted or have not been converted at all. Third, primary societies have been advised to withhold milk from the dairies run by OF institutions.

⁴¹ Interview with P.S Abraham, President of the Kerala Milk Societies Association.Calicut. 15/6/91.

⁴² " North Kerala Dairy Project- Strategy for Dairy Co-operative Formation and Milk Procurement ". Centre for Management Development. Trivandrum. 1990.

Instead, they have been encouraged to market milk on their own in urban centres with a view to defeat the marketing goals of MRCMPU.

The differing response of the co-operative elites in north and south Kerala to OF, needs to be explained. Two sets of reasons can be distinguished- one economic and the other political. We have noted in section I that OF was introduced into Malabar much later than in the south. Learning from the south Kerala experience, programme coordinators in Malabar dispensed with some of the least cost effective selective incentives, including subsidized veterinary care and interest free working capital loan, which had made the programme so attractive in the south. This naturally antagonised the co-operative elites of Malabar who were fully alive to the political and economic rewards that could be derived from a judicious and selective administration of these incentives.

Second, the milk prices offered by OF were substantially lower than those prevailing in Malabar. In a mistaken attempt to rationalise prices across the province, OF institutions were reluctant to set their purchase prices in Malabar above those prevailing in South Kerala. But as market prices were higher in Malabar, the co-operative elites were placed in the unenviable position of explaining to the farmers that to participate in the OF programme they had to accept lower prices for their produce.

Further, pre-OF institutions in Malabar had a number of production incentives such as a higher price for

supply during the lean season. Since OF was following a national policy, such incentives were withdrawn when OF was launched in Malabar. The farmers and the co-operative leaders therefore perceived that it was not in their best interests to support the programme.

There were equally compelling political reasons. The co-operative elites in the south were not in positions of power during the pre-OF period since the State owned the bulk of the processing and marketing facilities. OF, by transferring these facilities to farmers' organisation, afforded the co-operative elites enormous opportunities to gain control over sizable economic and organisational resources. These resources, could, then be deployed for generating political resources. The Congress party benefited most, as local leaders of the party had taken the initiative in organising dairy co-operatives in south Kerala. When OF, with its huge resources, was extended to Malabar, it sharpened the conflict between the rival political alliances. The LDF government sought to bring under their control, the majority of the dairy co-operatives in Malabar, a move which was resisted by the co-operative leaders belonging to the Congress party. Co-operative leaders, especially in south Kerala, were career politicians who realised that the increasing commercialisation of the dairy sector in Kerala afforded considerable political opportunities. The career of a former President of the Kerala Societies' Association-Prayar Gopalakrishnan, is a case in point.

In the Sixties, he was a student leader in the Kerala Students Union- the student wing of the Indian National Congress. Later, as Youth Congress leader he held several party positions both in the sub-district and district levels. Realising the potential of the dairy sector for aggregating political capital, he became associated with the dairy societies and was instrumental in the formation of the All Kerala Societies' Association. When OF was launched, he was co-opted onto the Board and when the first elections were held in 1986, he was returned as Chairman of the apex federation, a position which he still occupies. In the 1992 elections to the Kerala Legislative Assembly, he was a serious contender for a party ticket; but as he was offered a seat only in an opposition stronghold, he declined to contest. The career path of the President illustrates our argument that career politicians have found in the dairy sector a profitable avenue for furthering their personal and political interests.

The co-operative elites in Malabar, however, were negatively affected by OF. They were already in control of pre- OF institutions such as the CMS, Malappuram and Wyanad Unions. OF abolished these three unions and in their place formed one super union- MRCMPU. The considerable political and economic loss this entailed could have been made more palatable if the ex-leaders had been provided for within the new organisation. However, the demands of coalition politics in Kerala prevented the State from nominating any

of the office bearers of the former unions to the first board of MRCMPU. All the nominees were political appointees of the new government that had come to power in 1987.

The economic and political loss suffered by the co-operative elites in Malabar combined with the loss of the selective incentives described above, alienated a large section of the co-operative elites in Malabar from the OF programme. This has seriously undermined the cohesiveness of the co-operative leadership in the dairy sector. Currently, the elites are divided both geographically between the north and the south and horizontally into groups owing allegiance to various political parties.

The Kerala Societies' Association, which in the late seventies had emerged as a powerful pressure group is now in terminal decline. The southern leaders have found the OF institutions a better vehicle for optimising their economic and political interests; but the Malabar leaders, evicted from their old institutions and denied a place in the new dispensation, are embittered and disillusioned. Attempts are afoot to revive the Societies' Association to act as a countervailing force to the OF institutions. This would imply that OF institutions which have been specifically designed to protect and promote farmer interests, are not acceptable to a significant section of the co-operative leadership.

5. The Organised Labour Force

The organised labour force in the dairy industry, consists mainly of workers employed in the milk processing and chilling plants. In the pre-OF period, they did not constitute a powerful pressure group. The diffused ownership pattern in the co-operative sector with autonomous milk unions in each district prevented the emergence of a pan Kerala labour union in the dairy sector. The formation of the KLDMMB in 1976, afforded labour with its first opportunity to organise themselves on an all Kerala basis. Both CITU (a Communist affiliated union) and INTUC (Congress) exploited the opportunity offered by the presence of a public sector company to consolidate their position in the dairy sector.

The launching of OF, set the stage for a series of conflicts between OF institutions and organised labour. The outcome of these skirmishes was to have profound implications for the future of the programme in Kerala. Two such conflicts are relevant for our purpose. The first test came over the issue of the old dairies that were to be transferred by the State to the apex federation. On realising the extent of over staffing in these plants, the NDDB had second thoughts about the OF institutions taking over all the staff. But labour leaders successfully lobbied with the government.⁴³ During negotiations between the government representatives and the NDDB it was made clear

⁴³ Interview with the Director of Dairy Development. 19/3/91

that continued State support for the programme hinged upon this issue.⁴⁴ Eventually, the NDDB acceded to the demands of labour and the dairies with all their staff were taken over by the OF institutions.

The implications of this decision can best be illustrated by citing the case of the grossly overstaffed Kottayam dairy. The extent of surplus labour in the dairy can be judged by the fact that for the 60,000 Lpd plant at Quilon, the NDDB had projected a manpower requirement of only 36. As against this the Kottayam dairy had in 1983, a staff strength of 96 employees, to process a mere 1200 Lpd⁴⁵. However, the leader of the Congress- led union in the dairy happened to be the then Home Minister. Consequentially, the federation was forced to take over the dairy with all the employees.

Second, the expansion of OF to Malabar was facilitated by the pressure tactics of the trade unions. Both the CMS and Malappurum unions had second thoughts about merging with OF institutions. Trade unions adopted a dual strategy to counter the hesitancy of the local co-operative elites. At the dairy level they pressurised their management by threats of direct action to speed up the process of integration. Simultaneously, through the good offices of prominent trade union leaders, the government was persuaded to bring pressure on the Malabar leaders. It is undeniable that the integration of pre-OF institutions

⁴⁴ ibid

⁴⁵ Confidential report on the Kottayam dairy. KCMMF.1991.

in Malabar would not have proceeded so quickly without the pressure of the trade unions.⁴⁶

The trade unions had much to gain from the integration of the pre-OF dairies with OF institutions. First, by the terms of the agreement under which the Malabar milk unions merged with the federation, all the existing jobs were protected. Second, within a year the pay scales of all the employees were to be brought on par with the existing pay scales in the federation. This was a considerable windfall for the staff of the old milk unions as federation pay scales were substantially higher than their old pay scales, as the following table reveals:

TABLE IV.7

Comparative Statement of Pay Scales in Pre- OF and OF Institutions.

As on March 1990. Rs/month

Category	OF	CMS	MDCMSU
Senior Assistant	2154.00	1702.00	1044.00
Junior Assistant	1874.00	1569.00	943.00
Plant Operator	1991.00	1191.00	937.00

Source: Confidential records of TRCMPU, CMS and MDCMSU Unions.

The above table indicates that organised labour in the pre- OF milk unions gained substantially by the advent of OF. However this had negative implications for the future of the programme in Kerala. As in the case of

⁴⁶ Interview with M Chathu, President of CMS Union.Calicut.
24/4/91.

Kottayam dairy, both CMS and the Malappurum Unions were heavily over staffed. Thus in the CMS union, there were 171 employees to process 20,000 Lpd⁴⁷ (as against the NDDB projection of 36 employees to process 60,000 Lpd). The Malappurum union had 89 employees to chill 15,000 Lpd⁴⁸ (as against the NDDB projection of 12 employees to chill 20,000 Lpd).

The absorption of all the staff meant that, MRCMPU, the new OF institution, was crippled from the very beginning by excess staffing. The upward revision of pay scales to match federation pay scales increased the financial strain on MRCMPU. The Regional Union has calculated that the absorption of all the staff will result in employee cost rising from Rs 69.12 million per annum to Rs 144.00 million⁴⁹. Since MRCMPU, made a nominal profit of only RS 0.06 million in 1990-91⁵⁰, it is clear that the additional commitment will severely cripple its ability to implement the programme successfully.

The foregoing discussion reveals that organised labour welcomed the introduction of OF in Kerala as the potential financial benefits were considerable. We have also seen that the new projects were capital intensive and required relatively less inputs of labour. But the ability of organised labour to lobby successfully both with the

⁴⁷ Confidential records of CMS Union.1991.

⁴⁸ Confidential records of MDCMSU.1991.

⁴⁹ Confidential records of MRCMPU.1991.

⁵⁰ ibid

management and with political leaders ensured that all existing jobs were protected with enhanced emoluments. However, these achievements were won at the expense of the future viability of OF institutions in Kerala.

SUMMARY

In this Chapter, we first analyzed the nature of the intervention represented by OF. We suggested that it has been different from previous interventions both in its scale and the radical nature of the technical and organisational changes that it proposed to introduce. The technical transformation of the industry in turn necessitated changes in organisational structure. This significantly influenced the direction in which the programme evolved in Kerala.

Interviews with key decision makers have revealed that they were aware that Kerala had few of the comparative advantages necessary to sustain a massive dairy development programme.⁵¹ Despite this knowledge, OF was launched in Kerala. The availability of external funding is but a partial explanation. A fuller explanation would need to take into consideration the aims and goals of the key actors in the programme.

We have argued that all the interest groups associated with the programme in Kerala initially believed that they could derive substantial benefits from the

⁵¹ Interview with V.Kurien, Chairman NDDB and members of the NDDB planning team. op cit. 1991.

programme. They also had mutually conflicting goals. The National Technocracy's underlying goal was to limit the power of the State in policy formulation and implementation through the creation of a powerful farmers' organisation; but the institutional design envisaged effective control of the organisation in the hands of the technocracy. State elites welcomed the programme, despite the diminution of State power, because of the electoral and political benefits that the programme could confer on them. The dairy bureaucracy, on the other hand, became serious opponents of the programme, though they also initially welcomed the programme.

The programme had a differential impact on the fortunes of the co-operative elites. The southern leadership was empowered by the programme, while the Malabar leaders lost their traditional positions of authority and prestige which led to a split in the co-operative leadership, with serious implications for the programme, especially in Malabar. Organised labour benefited enormously from the launching of the programme, but at the expense of the future viability of the programme in Kerala.

Performance of Operation Flood in Kerala

In Chapter IV, we had indicated that OF was a multi dimensional programme with a number of conflicting objectives. The programme was expected to maintain urban supplies, increase the share of the organised sector, stimulate the agrarian sector and increase farm incomes. We had however suggested that while these were the stated aims of OF, the underlying goals were primarily political. In Chapters V and VI, we shall analyze the extent to which programme planners were able to achieve their stated objectives. Here, we shall first analyze whether OF had succeeded in its macro goal of ensuring stable markets for the dairy farmers of Kerala and then go on to examine whether the institutions created by the programme are commercially viable.

SECTION I

Operation Flood and Dairy Markets in Kerala.

Analysis of procurement and sales data indicate that in absolute terms, OF institutions had enormously expanded their markets. While the KCMMF¹ was marketing only around 67,000 Litres Per Day(LPD) in 1983 when it took over

¹ When we refer to data pertaining to all the OF institutions in Kerala, the data would be recorded under the head of KCMMF- the apex institution for all the three regional unions- TRCMPU, ERCMPU and MRCMPU.

the dairies, by 1991 it was marketing on an average 286,000 LPD². In contrast, the CMS, which was marketing about 8800 LPD in 1983, had increased its sales to only 14,242 LPD in 1990. However, absolute figures of sales increases are unreliable for evaluating the success of Operation Flood in Kerala. A more realistic analysis would be to examine whether the share of the organised sector has expanded due to the intervention of OF.

We have no precise data as to the total quantity of milk produced in the state. The Animal Husbandry department "guesstimates" the quantity of milk produced on the basis of the number of animals in milk. Consequently, the figures for total milk production have to be accepted with a great deal of reservation. Table V.1 provides a comparative analysis of milk produced in the state and milk procured by the KCMMF.

The table indicates that OF institutions still control less than 10% of the total marketable surplus. We may recall that in 1979-80 the organised sector was handling about 13% of the marketable surplus. This would mean that despite the massive investment in processing and marketing facilities during the last decade, OF had not been able to increase its share of the organised sector substantially. However, such a conclusion would be misleading as it does not reflect the market position of

² Confidential records of the KCMMF.1991.

KCMMF. OF, as we have emphasised, aimed at capturing the urban milk markets. In this effort, it seems to have had some success, as in many urban centres it has captured a substantial share of the market. Informal surveys conducted by KCMMF indicate that in Trivandrum, it controls more than 70% of the market. Though this high percentage is not reflected in other urban centres, KCMMF is the market leader in a number of them, with a very visible presence.³

TABLE V.1

Comparative Statement of Total Milk Production and Milk Marketed by KCMMF : 1980-90 (in tonnes).

	1980-81	1989-90
Total Milk Produced	908,000	1,600,000
Milk Procured by KCMMF	2,184 (0.24%)	90,579 (5.66%)
Total Marketable Surplus*	572,000	1,008,000
Procurement as percentage of Marketable Surplus	0.38%	9.02%

Source: "Economic Review". 1990. op cit and records of KCMMF.

Note: Figures in brackets denote percentage to total production.

* A number of studies have indicated that the dairy economy of Kerala has been highly commercialised. The Centre for Development Studies Trivandrum, had calculated that 63% of the milk produced in the state is marketed⁴. We have adopted this figure for arriving at the marketable surplus.

³ In 1988, KCMMF had about 45% of the market in five towns. In Quilon and Alleppey, it had over 50% of the market. See "Analytical Report and Progress of Operation Flood in the Southern Region ". NDDB. Anand. 1988.

⁴ See : George P.S and Nair K.N. 1990. op cit.

The very high visibility of KCMMF in the urban centres increases its vulnerability to short term imbalances in the market. As a larger percentage of consumers switched from informal market channels to KCMMF, any shortages affecting the organisation had ripple effects throughout the urban markets in Kerala. Prior to OF, the segmented nature of dairy markets in Kerala meant that shortages were localised with lesser spill-over effects for the whole economy. But the presence of KCMMF as a significant market agent in every major urban centre, magnified the organisation's problems into an economy wide crisis. From the second half of 1990 onwards KCMMF began to experience a steady fall in milk procurement. Sales, however, continued to rise leading to a chronic mismatch between demand and supply, as can be seen from Table V.2.

Table V.2

Average Daily Procurement and Sales of KCMMF: 1984-91.(LPD)

Year	Procurement	% Change	Sales	% Change
1984	88,536	-----	89,609	-----
1986	123,149	+39	135,858	+52
1988	211,292	+72	189,180	+39
1989	236,380	+12	238,825	+26
1990	228,943	-3	282,536	+18
1991*	215,707	-6	286,917	+2

Source: Confidential records of KCMMF. 1991. * Average of eight months.

We observe from the above table that while sales had increased by 20% between 1989 and 1991, procurement had actually dropped by 9%. Gaps between supply and demand are commonplace in milk markets and is generally met by imports of milk from external markets or by recombination of milk powder. Thus, during the mid eighties, when the monsoon failed in Kerala, temporary shortages were solved by procuring milk powder from the NDDB and fluid milk from the sister federations of Tamilnadu and Karnataka. Similarly, when there was excess supply during the flush season, the milk was shipped out to the milk powder plants in the neighbouring provinces for conversion. Thus, through the linkages it established between the milk producers of Kerala and those of the neighbouring provinces, seemed to offer some remedy for the chronic instability of dairy markets in Kerala.

Such measures are, however, effective only when the gap between supply and demand is narrow and temporary. But in the case of KCMMF the gap seems to have steadily widened in 1991. During the early months of 1991 the gap between procurement and sales was on an average 70,000 LPD. In March 1991 it widened to over 93,000 LPD which is nearly 45% of the total procurement of KCMMF⁵. In addition, the decline appeared to be secular rather than temporary. Between August 1990 and 1991, procurement dropped in ten consecutive months.

⁵ Confidential records of KCMMF.1991.

The extent of the shortage and its persistence over several months severely handicapped the ability of KCMMF to maintain urban supplies. Consequently, sales had to be curtailed by introducing an informal system of rationing in most urban centres. The crisis was especially acute in the cities of Calicut, Cochin and Trivandrum where KCMMF had a substantial market share. Since the consumers in these centres are highly influential and well organised, the organisational crisis and its impact was extensively covered by the media.⁶ It was argued that OF, which had set out to ensure stability in dairy markets, had failed to sustain its initial momentum. The validity of this contention can be evaluated by identifying the nature of the crisis. Is it a crisis of excess demand or of under supply?.

Demand Factors

From Table V.2 we observe that urban demand was rising faster than supply from 1989. Analysis of data collected from the sample societies indicates that rural demand was also rising fast between 1990 and 1991. In Chapter IV, we had indicated that primary societies are permitted to sell a portion of the milk locally, while the

⁶ The "Malayala Manorama", Kerala's largest selling Malayalam daily ran a series of articles in April 1991, which explicitly stated that OF had failed in its goal of ensuring urban milk supplies. The paper suggested that organisational problems were primarily responsible for the crisis.

bulk of the milk has to be sent to the dairy plants. Depending upon their proximity to urban consumption centres, the quantity of milk that a society can sell locally will vary greatly. However, year on year change in the quantity of milk sold locally, is usually a reliable indicator of the increase or decrease in rural demand. We furnish below information on the local sales of 14 societies from our sample of twenty societies, for which the information is available:

TABLE V.3

Percentage Change in Local Sales of Selected Societies: 1990-91

Society	March 1990	March 1991
Pullenchery	8	9
Karulai	52	62
Kappil Karad	11	21
Palemad	28	44
Nilambur Town	60	77
Cheruvannor	63	56
Kuppayakode	39	54
Vattoli Bazar	33	37
Puthenvelikkara	7	5
Puliyanam	7	15

Society	March 1990	March 1991
Needappara	19	27
Vengola	4	23
Kuzhamvila	2	6
Uchakada	1	2

Note: The figures furnished above, represent the percentage of milk that was sold locally out of the total milk procured by the society.

Source: Field Survey by the Author, June-July 1991.

Except in the case of two societies local sales have expanded quite significantly for all the other societies. Confirmation of this trend towards higher local sales can be obtained by analysing the quantity of milk that societies have sent to the dairies. The difference between the quantity procured and the quantity sent to the dairy represent the amount that is sold locally.

TABLE V.4

Percentage of Milk Supplied to Dairies as Percentage of Total Procurement:1986-91.

Region	1986	1988	1989	1990	1991
TRCMPU	82.7%	93.5%	86.4%	83.9%	75.0%
ERCMPU	81.9%	84.0%	97.4%	77.8%	68.0%

Source: Confidential records of KCMMF.1991.

In Trivandrum region, the percentage of local sales has increased from 6.55% in 1988 to 25% in 1991; in Ernakulam region, the percentage has increased from 16% to 32%. The two tables taken together would suggest that rural demand has expanded enormously between 1988 and 1991.

The increased demand for milk and milk products towards the close of the eighties has not been adequately explained. We can offer at best some very tentative suggestions. First, the increased commercialisation of the dairy economy has stimulated demand for milk products. The strategy of OF, as we noted earlier, was based on the assumption that increased demand would automatically stimulate increased production. The NDDB believed that farmers restricted production due to lack of assured markets for their produce.

The first step in the OF strategy, therefore, was to increase market share by a combination of expelling existing market agents and boosting urban demand. Towards this end, distribution systems were vastly strengthened and advertisement stepped up. A substantial grant for defraying the initial advertisement expenditure, and subsidies for setting up the distribution system enabled OF institutions to penetrate urban markets easily. Initial supplies are maintained by the NDDB supplying milk powder at below market prices. By maintaining supplies even during the lean months when other market agents have to restrict supplies, OF institutions were able not only to increase their share but also to expand total demand significantly.

The comparatively better performance of the Kerala economy towards the close of the eighties could be a contributory factor. Between 1981 and 1988, the per capita income of the province had declined at constant figures from Rs 1494 to Rs 1416. It, however, rose to Rs 1530 in 1989 and to Rs 1596 in 1990⁷. The higher disposable income could have induced higher demand for milk products.

Third, the relative movements in the price of milk and milk substitutes in the second half of the eighties favoured a switch to milk products:

TABLE V.5
Price of Milk and Milk Substitutes:1985-90.

Item	1985		1990	
	Rs	Index	Rs	Index
Mutton Rs/KG	24.00	100	40.00	167
Beef Rs/KG	12.00	100	16.00	133
Chicken Rs/KG	20.00	100	30.00	150
Eggs Rs/100	50.00	100	63.00	126
Milk Rs/Litre	4.00	100	5.00	125

Source: Bureau of Economics and Statistics.
Government of Kerala.

⁷ "Economic Review". 1990. op cit.

We see from the above table that the index numbers for all the commodities were higher than milk. The increased availability of milk in the urban centres, following the launching of Operation Flood, combined with its relatively lower price could have led to the expansion of demand. It is fair to assume that the current disequilibrium in milk markets is partly due to the rapid growth in demand during the recent years.

Supply Factors

We observed in Table V.1, that milk procurement by OF institutions had come down during the last two years. A sustained drop in procurement implies that farmers are either unable or unwilling to supply at levels required to meet current demand. The former implies that constraints in the dairy economy as a whole has reduced the productive capabilities of farmers. The latter, on the other hand, denotes organisational problems. To identify the nature of the problem we need to analyze procurement patterns in three different markets: 1) The dairy economy in Kerala as a whole, 2) OF and non OF markets in Kerala and 3) OF markets in the rest of India.

1) Production Trends in the Dairy Economy

One explanation for the drop in procurement is that it could be reflecting a drop in total production in the state. However, records with the Animal Husbandry (AH) Department indicate that total production in Kerala has

increased from 1.51 million tonnes in 1988-89 to 1.6 million tonnes in 1989-90⁸. A study by the KCMMF, quoting field surveys of the AH Department, found that there has been a marginal increase in the population of animals in milk between 1988 and 1990. The productivity of cross-bred animals was also estimated to have gone up marginally. Due to these factors, total milk production, according to the study, increased from 3.58 million Kg per day in 1988-89 to 3.84 million Kg in 1989-90. The report concludes that there was " no evidence of a fall in production."⁹

These macro statistics are however contradicted by the results of the field survey we conducted in mid 1991. In response to a question whether in comparison to the previous year, the respondent was supplying more or less milk during the current year, only 22% reported that they were supplying more milk, while 56% reported less. Of the latter more than 91% stated that reduced production was the main reason for the lower supply.¹⁰

Interviews with society presidents confirm the impression that during the last two years, farmers have been slowly opting out of milk production. The president of Vengola, a society in Ernakulam district reported that farmers in his area are reducing the number of cows so as

⁸ "Economic Review". Various issues. op cit.

⁹ "Milk Availability Study". KCMMF. Trivandrum. 1991.

¹⁰ Field Survey. June-July 1991.

to reduce their risk.¹¹ The majority of the presidents interviewed in the various regions informed the author that negative returns from dairying were forcing many farmers to opt out of dairying altogether.¹²

The contradiction in the two sets of data points to the difficulties involved in assessing production levels in the dairy economy. The discrepancy could be partly explained by the fact that the field studies of the AH Department were carried out during 1989 when milk production was at its peak in Kerala. Our survey, which was conducted two years later would capture information that was unavailable at the time of the official survey. From the above it is fair to assume that some drop in total production has occurred, which is yet to appear in official statistics.

2) OF and Non OF markets in Kerala

The probability of a drop in total production is confirmed when we analyze the procurement patterns of OF and non OF institutions in Kerala in Table V.6 below.

¹¹Interview with the President of the Vengola society. 17/6/91.

¹² Field visit: June-July, 1991.

TABLE V.6

Procurement of Milk by OF and non OF institutions in Kerala: 1986-91.

Litres Per Day

Agency	1986	1988	1989	1990	1991
TRCMPU	52,790	93,104	107,414	104,059	95,271
ERCMPU	54,006	94,645	95,973	88,971	72,493
MDCMSU	8,053	10,823	12,620	13,030	10,641

Source: Confidential records of TRCMPU, ERCMPU and MDCMSU. 1991.

Note: The first two are OF institutions, while MDCMSU is a non-OF institution which was converted into an OF institution in August 1990.

We may observe from the above data that even in the non OF institution, procurement has dropped during 1991. One of the arguments advanced for the drop in the procurement of MDCMSU in 1991 was its conversion into an OF institution. We had noted in chapter IV that the co-operative elites of Malabar were extremely disillusioned by the OF programme and sought to discredit its achievements. To assess whether the drop in procurement was due to its conversion into an OF institution, we analyze below the monthly procurement of MDCMSU before and after its conversion into an OF institution in August 1990.

TABLE V.7

Procurement of MDCMSU Before and After its
Conversion: 1988-91.

	Prior			After	
	1988	1989	1990	1990	1991
January	----	0.393	0.367	----	0.244
February	----	0.343	0.295	----	0.184
March	----	0.382	0.306	----	0.202
April	----	0.352	0.290	----	0.186
May	----	0.387	0.311	----	0.176
June	----	0.404	0.319	----	NA
July	----	0.427	0.339	----	NA
August	0.347	0.445	----	0.329	NA
September	0.379	0.445	----	0.329	NA
October	0.419	0.467	----	0.320	NA
November	0.421	0.433	----	0.342	NA
December	0.428	0.430	----	0.314	NA

Source: Confidential records of MDCMSU. 1991.

From the month of January 1990 onwards procurement had started to decline. The drop in procurement that we observed in Table V.6 is a continuation of the fall that started well before the organisation was taken over by OF. Analysis of procurement patterns in the societies attached to the CMS union also reveal that the decline had begun before CMS was absorbed into the OF programme. Thus, while the OF programme may have a number of negative aspects, the shortages that Kerala experienced from the second half of 1990 cannot be attributed to the programme alone.

3) OF markets outside Kerala.

To examine whether the shortages in Kerala were unique to the province we analyzed the procurement patterns of OF institutions all over India:

TABLE V.8

Average Procurement of Milk by OF Institutions in India: 1988-91 ('000 KG/day)

Region	1988-89	1989-90	1990-91
North	1082.00	1339.98	1258.54
East	156.80	217.08	197.45
West	3961.76	5124.78	5247.40
South	2767.32	3132.72	2999.28
All India	7967.88	9813.72	9702.67

Source: NDDB Anand. 1991.

At the All India level, procurement dropped by 1.13% between 1989-90 and 1990-91. A more detailed analysis within the southern region showed that among the four major states of Andhra Pradesh, Karnataka, Tamilnadu and Kerala, only in Andhra did procurement increase marginally; in all the other provinces it declined. We can conclude that the decline is not confined to Kerala; and that it is part of a pan Indian phenomenon.

The foregoing analysis indicates that in all the three markets - OF markets outside Kerala, OF markets within Kerala and non-OF markets in Kerala -, procurement

had dropped since the beginning of the current decade. It will take us too far afield to analyze the reasons for the distortions in markets outside Kerala; but for the markets in Kerala we can offer some tentative explanations.

Reasons for the Fall in Procurement:

1 Poor Resource Base of Kerala

We had observed in Chapter IV that programme planners were aware that Kerala did not possess a comparative advantage in mounting a massive dairy development programme. The current scarcity could therefore be an indication that the limits to the dairy potential of the province has been reached. In Table V.9 we analyze the average procurement by each society since the inception of the programme:

TABLE V.9

Average Daily Procurement by APCOS in Kerala:1982-91.

Year	No: of Societies	Average LPD
1982	150	152
1986	569	196
1988	988	193
1989	1067	214
1990	1159	198
1991	1217	177

Source: Records of KCMMF. 1991.

The average procurement has stagnated since the mid eighties, indicating that the OF was pursuing a strategy of rapid expansion of the catchment area rather than intense exploitation of selected areas. This was inevitable given the low density of milk production in Kerala. But the current deficits would imply that the programme has reached a plateau and that further increase in procurement cannot be expected by increasing the catchment area further. This has severe negative implications for a programme whose central strategy has been built on increasing market share rather than augmenting the productive potential of the farmers.

2) The Crisis of 1989.

The procurement drop could also be attributed in part to the farmer's loss of faith in the organisation. One of the key commitments of OF was stable marketing arrangements. In 1989, however KCMMF failed to honour its commitments. Between December 1988 and December 1989, procurement increased by 60% while sales increased by only 9%. Faced with mounting surpluses and unable to convert the milk due to the non availability of conversion facilities both in and outside Kerala, the organisation was forced to suspend milk procurement. Thus, in 1989, ERCMPU declared milk procurement holidays 9 times.¹³

¹³ Confidential records of ERCMPU.1991.

The crisis of 1989 had two serious consequences for the programme in Kerala. First, it destroyed the farmers' faith in the ability of KCMMF to correct temporary market distortions. To reduce their risk, farmers adopted the twin strategy of developing alternate informal marketing arrangements and to reduce their stock of milch cattle. Both the strategies will have serious negative consequences for the programme in the medium term.

Second, the crisis enabled the government of Kerala to exercise for the first time, a degree of control over the operational activities of KCMMF. We had noted in Chapter IV that the government had given an undertaking to the NDDB that it would not interfere in the activities of KCMMF. However, faced with the failure of the National Milk Grid to take care of the excess milk in Kerala, the Government stepped in. It issued a circular which set aside the NDDB stipulation that APCOS were permitted to sell only 20% of their procurement locally.

The government's intention was to stimulate rural demand and thus reduce the excess supply. However, it had the unintended effect of undermining the Kerala government's own strategy of feeding urban milk markets through blanket rural procurement. Freed from the contractual obligation of supplying 80% of their procurement to the dairies, primary societies began to concentrate on local markets. This strategy had no adverse impact when there was a surplus in the milk markets as a whole. However when total production dropped, the APCOS'

first priority was to meet the increased rural demand, which was more attractive financially than selling to the dairies.

3) The Free-rider Problem.

A third factor may be the free rider problem which is endemic in cooperative institutions. Three types of free rider problems can be distinguished in the dairy markets of Kerala: free riding by non OF institutions on the dairies of KCMMF, free riding by the affiliated societies of OF and free riding by individual dairy farmers.

Non OF milk unions have a tendency to dump their excess milk during the flush on to the OF dairies and starve them during the lean. This opportunistic use of KCMMF's facilities reduces the ability to deal with the perennial problem of lean/flush variations. The ability of an organisation to prevent free riding is dependent in part on its coercive ability. Dairies can prevent free riding by refusing to accept milk during flush unless supplies are maintained during the lean. ERCMPU had in fact prepared a list of chronic free riders and had issued instructions to its dairies not to accept their milk during the flush season. But these instructions were overridden by the Kerala government and the dairies were forced to accept all the milk of the free riders. (The government's action was prompted by the belief that the political leadership of ERCMPU was singling out societies that were not allied to

the leadership politically.). The effect of the State intervention was to dilute the coercive capability of the organisation and thus encourage more free riding in the future.

The affiliated societies of OF - the APCOS -, are equally guilty of free riding on the dairies. A monthly analysis of procurement trends of ERCPMU indicates that societies significantly reduce supply during the lean months.¹⁴ A comparative analysis of the free rider problem in the non OF institution of CMS indicates that while the problem exists, CMS is better able to deal with it than OF institutions. Free riders are quickly detected and punished.

The differential ability of the two organisations to deal with these free rider problems needs discussion. One explanation is obviously the difference in size. In 1990, the number of societies affiliated to ERCPMU and TRCPMU was respectively 373 and 538. CMS on the other hand had only 47 affiliated societies. The tendency to free ride

¹⁴ In the following table we analyze the despatch of milk from the APCOS affiliated to ERCPMU.

Milk Sent to Dairies as Percentage of Total Procurement.

Lean Months		Flush Months	
February	71.43	January	79.43
March	72.54	June	80.60
April	75.95	July	83.13
May	74.81	August	82.44
September	77.90	October	78.78
		November	78.18
		December	81.22

Source: Confidential records of ERCPMU.1991.

is greater in larger groups ¹⁵. In the case of the larger group, the contribution of each society is marginal to the total procurement. Thus, as against TRCMPU's average daily procurement of 109,700 LPD in 1990, the average daily procurement of an affiliated society was only 215 LPD. The average daily procurement of a society attached to CMS, on the other hand, was 441 litres compared to its total procurement of 20,700 LPD in 1989. Consequently, free riding by a society affiliated to the CMS would constitute a greater threat than free riding by a society attached to TRCMPU.

Second, the coercive capability of CMS was not diluted by the State as in the case of OF institutions. Apart from refusing to accept milk during the flush, CMS used a system called "marginal profit" to curb the free rider tendencies of its members.¹⁶ According to this system if any society violated its agreement with the union and sold more milk in the open market, then the excess profit accruing to the society was confiscated by the union. Since this coercive power was willingly devolved on the management by the members, "marginal profit" was a very effective device to control free riding. However, when MRCMPU, the successor organisation of CMS, attempted to impose the same proviso it met with resistance from the societies and the management was forced to withdraw. This may be due to the fact that societies in Malabar viewed

¹⁵ See Olson M. 1965. op cit

¹⁶ Confidential records of CMS Union.1991.

MRCMPU as an alien organisation imposed by the OF programme, while CMS was an organisation that gradually evolved in response to local needs.

The third type of free riding is that of individual farmers. Farmers tend to either supply milk when they have no other alternatives or supply a very limited quantity so as to become eligible for subsidized inputs. A study by the Centre for Development Studies, Trivandrum, showed that farmers prefer to sell to the local consumers or to tea shops and that sales to cooperatives are made mainly to dispose of the milk that the local markets cannot absorb.¹⁷ Such a strategy with its minimal commitment to organisational goals means that when local demand expands, supply to the organisation will be reduced.

This strategy is entirely rational for the farmer. In the next chapter we shall show that the co-operative elites have failed to adequately protect farm incomes through a higher producer price. They have sought to compensate this failure by providing inputs at below market prices. But this strategy of under-providing the collective good of a higher producer price while simultaneously delivering selective incentives such as subsidized cattle feed and veterinary service, encourages free riding by farmers. This proposition can be illustrated by analysing the ratio of inputs consumed by farmers to outputs supplied by them.

¹⁷ See George P S and Nair K N. 1990. op cit

Analysis of data relating to TRCMPU indicates that while in 1988 in return for every kilogram of cattle feed received, farmers supplied 2.78 litres, by 1990 this had fallen to 2.18 litres. A similar phenomenon was observed in the case of veterinary service. The number of cases treated by the veterinary doctors of TRCMPU for every 1000 litres of milk received, increased from 2.52 in 1989 to 3.53 in 1990.¹⁸ These figures imply that while the organisation was expanding its services, the farmers were actually reducing their supply.

Such behaviour is entirely rational given that the current strategy severely distorts the incentive system. The cost of veterinary service, for instance, is partly recouped by the organisation deducting a small amount from the price of the milk supplied by every farmer. This reduces the price of the milk for all the farmers. However, data with the KCMMF shows that less than 50% of the farmers use the veterinary service.¹⁹ In other words, 100% of the farmers bear the cost of supplying a good which is consumed only by 50% of the farmers. Consequently, it is rational for each farmer to maximise his return by providing the least quantity of milk possible to the society.

¹⁸ Confidential records of TRCMPU.1991.

¹⁹ Confidential records of KCMMF.1991.

4) Interest group Conflicts

We had noted in Chapter IV, that there were intra-group conflicts between the co-operative elites. In Malabar, this conflict was given an institutional form through the creation of an "Action Committee" to agitate against the policies of OF.²⁰ This committee organised "dharnas", protest "jathas" and lobbied with the government against OF institutions. Its most effective strategy, however, was to persuade societies to stop supplying milk to OF institutions.

Societies were encouraged to heed the advice of the "Action Committee" due to a variety of factors. First, by reducing supply to the dairies, they had more to sell in the open market. At a time of national shortage, open market sales were obviously more attractive than sales to the dairies. Second, society presidents hoped that by restricting supply, the management of KCMMF could be forced to restore many of the benefits that they enjoyed before the coming of OF to Malabar.²¹

The attitude of the Department of Dairy Development was a further incentive. We have indicated in Chapter IV, that the dairy bureaucracy was deeply alienated by the programme. Departmental officials sought to

²⁰ Interview with M.Ali, the President of the Cheruvannor Society. 15/6/91.

²¹ These benefits included a higher price for milk, incentive bonus for supplying quantities in excess of the contract, and a special price structure for supply during the lean season.

reestablish their influence by exploiting the divisions within the co-operative elites. Societies were, thus, offered grants to purchase refrigerators and other equipment necessary for augmenting open market sales. Such grants were legitimised on the ground of increasing rural consumption. They, however, served a deeper purpose. On the one hand, they enabled the department to detach societies from the OF management through the use of selective incentives. More importantly, increased open market sales reduced the inflow to OF dairies. The resultant shortages in the urban markets were then cited as an indication of the failure of OF.

Operation Flood has, thus, a mixed record in stabilising dairy markets in Kerala. In the initial years of the programme, KCMMF's institutional links with both the NDBD and the neighbouring federations enabled it to handle seasonal variations. However, the crisis of 1989 and the drop in procurement in 1990-91, indicate that dairy markets in Kerala are still unsettled.

SECTION II

Financial Performance of OF Institutions in Kerala.

Much of the appeal of OF can be traced to its claim to have evolved a commercially viable dairy development programme. We have observed in Chapter III that previous State interventions in the dairy markets were unsustainable

in the long run due to their financial weakness. OF, on the other hand, was envisaged to be a self-sustaining, profitable programme which would not be dependent on continued budgetary support.

The performance of OF institutions in Kerala however, has, at best, been mixed. The primary societies- the APCOS, have done well. Over 80% of the APCOS are currently operating on a profit. When we recall that during the pre-OF period, only 51% of the societies were profitable OF's claim of better financial performance appears to be justified.

However, the middle and upper tiers of the structure, namely the regional unions and the apex federation appear to be in deep financial trouble. The accumulated losses of KCMMF, (including that of TRCMPU and ERCPMU) were estimated to be Rs 19.23 million in March 1989²². These losses are partly due to the historical legacy of taking over the unprofitable institutions operated by the government and the pre-OF milk unions. When KCMMF took over the dairies and the cattle feed plant in 1983-84, the organisation was also forced to take over the liabilities of these institutions amounting to Rs 3.3 million. Thus, the current perilous state of the organisation's finances cannot be entirely attributed to the OF programme. Further there are striking differences in the performances between OF institutions in Kerala as Table V.10 reveals:

²² Analysis of All India data reveal that OF institutions all over India are in trouble. The accumulated losses of all the unions in India, increased from Rs 1791.71 million in 1987 to Rs 2107.75 million in 1989. Of the 138 unions for which information is available, 119 unions have accumulated losses of varying degrees. Confidential records of the NDDB. Anand. 1991.

TABLE V.10

Profit and Loss Account of OF Institutions in Kerala: 1985-91.

(Rs/Millions)

Item	Federation		TRCMPU		ERCMPU	
	1985-86	1990-91	1985-86	1990-91	1985-86	1990-91
I INCOME:						
A) Sales	32.307	150.065	94.449	262.637	82.274	218.964
B) Other Income	1.215	4.090	0.161	4.119	0.158	2.105
C) Stock Out	----	0.262	9.953	54.895	12.746	30.455
Total	33.522	154.417	106.203	321.651	95.178	251.524
II Expenditure:						
A) Raw Material	25.536	129.376	81.997	222.471	79.552	181.734
B) Manufacturing	0.835	3.338	2.125	5.364	2.496	8.053
C) Employees Cost	2.544	7.932	8.345	19.640	7.587	20.303
D) Administration	1.349	1.018	2.263	4.506	2.751	4.153
E) Selling Costs	1.693	6.931	2.635	5.091	2.841	5.597
F) Interest	0.768	2.661	----	2.412	----	1.326
G) Depreciation	1.138	3.375	2.101	3.328	0.133	5.000
H) Stock In	----	0.571	11.327	54.895	----	26.318
I) Miscellaneous	----	2.202	----	2.859	4.759	4.333
Total	33.863	157.404	110.793	320.566	100.119	256.817
III Profit/Loss	-0.341	-2.987	-4.590	1.085	-4.941	-5.293

Source: Confidential records of KCMMF. 1991.

While TRCMPU has been able to convert a loss of Rs 4.59 million into a profit of Rs 1.085 million, the losses of the other two institutions have increased over

the years. A detailed analysis of the performance of these institutions illuminates the functioning of the programme in Kerala. Based on this, it would be possible to make some tentative prediction as to the direction in which the programme will evolve in the future. We shall first analyze the the performance of the federation and then go on to examine the two unions.

The Federation.

Table V.10 shows that the losses of the Federation have increased from Rs 0.341 million to Rs 2.987 million during the last five years²³. The Federation operates the Central Products Dairy(CPD) at Alleppey and two cattle feed plants. Analysis of the performance of these three plants reveals that in 1991, the CPD lost Rs 1.96 million, while the balance of Rs 1.018 million is accounted for by the two cattle feed plants.

The CPD's losses were mainly due to the tetra brick plant that was commissioned to pack milk only in March 1990. To break even, the plant needs to pack at least 13,000 trays a month. During 1990-91, the plant packed only 3500 trays a month. However, as the project has completed

²³ During this period, the federation handed over the Cannanore and Palghat dairies to the newly formed Malabar regional union. This does affect the overall picture as they were profitable dairies and their transfer reduces the overall profitability of the Federation. However, since our analysis is mainly concerned with the profitability of the Central Products Dairy and the cattle feed plants, the transfer of the dairies will not affect the validity of our argument.

only one full year of operation it is too early to make any prediction as to its future.

The cattle feed plants' losses are more difficult to rationalise. To understand the nature of the problem, we analyze the working of the Pattanakkad cattle feed plant. The decision to locate the new plant at Pattanakkad was based on non-commercial considerations and we saw (See Chapter IV above) that this decision had adversely affected its financial viability. In addition, we observe that pricing decisions have tended to further increase the financial vulnerability of the plant. The plant has an effective capacity of 30,000 tonnes of feed a year. In 1990-91, it produced 24,251 MTS (metric tonnes), of feed, thereby achieving a capacity utilisation of 81%. By normal standards, it should have been making considerable profits. Instead, the plant lost money each year. The decision of the Board of Directors to under-price the products of the plant appears to be the main reason for this loss.

The Board had directed that the bulk of the feed produced should be earmarked for APCOS. This was a reasonable direction to make, given that the plant was set up to meet the requirements of the farmer members. However the programme planners did not intend that the feed should be supplied at a price less than its cost of production. In 1990, the average cost of production for a tonne of feed was Rs 2256. The price realised by the plant by sale of

feed to the societies was well below this rate, as can be seen from Table V.11.

TABLE V.11
Price Realised From Alternative Marketing Outlets:
1990-91.

Rs/MT

Outlet	April 90 to Sept 90	Oct 90 to Jan 91	February 1991	March 1991
Stockist	2312.66	2312.66	2497.50	2497.50
APCOS	1920.00	2126.00	2126.00	2115.11
Difference	392.66	186.66	371.50	382.11
Quantity sold to APCOS (MT)	8649	4336	901	1333

Note: Revenue foregone as a result of sales at below market rates: (the difference between stockist's purchase price and APCOS's price multiplied by quantity sold to APCOS) = RS 5.050 million.

Source: Confidential note from Marketing Manager to Chairman, KCMMF, dated 24/8/91.

From the above table it is clear that the net realisation from sales to APCOs was less than the average cost of production of Rs 2256 per tonne in each of the four time periods. Since sales to APCOs constituted 63% of total sales in 1990-91, the total loss to the plant should have been higher than the loss it actually incurred. The losses were lower only because the higher returns from selling to stockist offset the losses from the sales to the societies.

The conclusion must be that the Board has quite consciously adopted a pricing policy that imposed considerable financial burdens on the plant. The rationality of this commercially indefensible decision becomes apparent when we analyze the benefits that accrue to the decision makers. First, it is a powerful instrument for generating political support from farmer members. The average price of comparable cattle feed in Kerala is given below:

TABLE V.12
Price of Cattle Feed in Kerala
March 1991

Sale Price of Mysore Feeds	Rs 3100.00
Sale Price of K S Feeds	Rs 3000.00
Sale Price of Tata Feeds	Rs 3000.00
Sale Price of Godrej Feeds	Rs 3100.00
Sale Price of KCMMF Feed to APCOS	Rs 2115.11

Source: KCMMF records.1991.

Market prices of comparable feed are at least 40 to 47% higher than KCMMF feed. Given the fact that Co-operative elites are unable to raise milk prices, providing feed at below market prices would be an alternative option to ensure continued political support. An equally

compelling reason is the possibility of rewarding key political supporters through policy generated rents. Recipients of the subsidized feed can exploit the enormous gap between the prices of KCMMF feed and open market prices to their advantage. Thus, while there is little economic rationale for the underpricing of goods, the political gains are considerable.

The Regional Unions.

Table V.11 shows ERCPMU continuing to lose money, while TRCPMU, has been able to make profits. Poor financial performance is linked to the organisation's inability to keep down costs. A detailed analysis of the figures in Table V.11 shows that, excluding raw materials and stock transfers, expenditure of the two unions had increased in real terms from Rs 38.036 million in 1985-86 to Rs 67.33 million in 1990-91. This constitutes a 77% growth in expenditure. This would have to be met by increasing the margin between the purchase and selling price of milk. However, the margins taken by the two unions show declining trends. Thus the margin has declined in real terms from Rs 1.37 per litre in 1985 to Rs 1.12 in 1991. Whereas expenditure grew at an annual rate of 15%, income fell at a rate of -3%. In the next chapter, we discuss why the Unions were unable to increase operating margins by levying a higher sales price. Here we shall only note the rapid growth in expenditure, and offer some tentative explanation for it. For analytical purpose we distinguish four

expenditure heads: raw materials; distribution costs; amortisation costs; and labour cost. Since the major component of raw materials is milk, we discuss it in the next chapter when we discuss the pricing of milk.

1) Distribution Costs:

This includes both procurement and selling costs. Procurement costs have been increasing primarily as a result of expanding the programme to cover more marginal areas. A recent study indicates that whereas in the traditional milch tracts 35 to 40 litres of milk are collected in every KM, in the newly developed areas only 6 to 8 litres are collected²⁴. With total procurement stagnating, the marginal cost of milk procurement is bound to rise as the programme spreads to less productive areas.

OF's central strategy is to shift milk in bulk from low demand/ high productive rural tracts to high demand/low productive urban centres. Processing centres were therefore set up in major urban centres so as to be proximate to the major consumption centres. But demand in Kerala is diffused²⁵. As a result, the entire procurement, processing and marketing strategies of OF often appears to

²⁴ See Kurup K.P.P and Nair T.S : " Milk Marketing in Kerala- Impact on Cattle Development Strategies." National Seminar on Dairy Development as an Instrument for Socio Economic Growth: The Kerala Experience. 21/5/90. Trivandrum.

²⁵ The dispersed settlement pattern of Kerala ensures that demand is not concentrated in urban centres alone. Further, we have indicated previously, that purchasing power is diffused in Kerala with little difference between districts that are largely urban and those that are predominantly rural.

be inappropriate for existing market conditions. To illustrate, Pathanamthitta is a small town approximately 70 KM south-east of Quilon, where the main processing plant for the area is located. Currently, milk is being collected from the area around Pathanamthitta, brought to Quilon for processing and sent back to Pathanamthitta town for sales. The transportation costs involved in such an exercise is significant.

2) Amortisation Costs

Servicing the debts contracted from the NDDB will become increasingly onerous in the future. Currently, the yearly repayments are manageable because of the repayment holiday of five years. The NDDB estimates indicate that only 19% of the loans disbursed to date fell due before 1990 ²⁶. This accounts for the low interest and depreciation charges recorded in Table V.11. But as the programme matures, the debts will be more difficult to service on current performance.

3) Labour Cost

The largest of the three expenditures is labour. In real terms, labour cost for the two unions increased from Rs 15.93 million in 1986 to Rs 29.25 in 1991 - an annual average growth of 17%. This increase is primarily due to higher emoluments rather than an increase in staff strength. Between 1986 and 1991, the number of

²⁶ Confidential records of the NDDB. Anand.1991.

employees in the two organisations grew at an average rate of 3.5%. However, the rate of growth in their emoluments was far higher, as the following table shows:²⁷

TABLE V.13
Growth in the Emoluments of Staff: 1986-91
(Rs/Month. 1986 prices)

Category*	March 1986	March 1991	Annual Growth Rate %
I OFFICERS:			
A) Senior Manager	3347.00	4596.00	7.46
B) Manager	2235.00	4256.00	18.08
C) Assistant Manager	2059.00	3368.00	12.71
D) Asst:Accounts Officer	1566.00	2851.00	16.42
E) Milk Procurement Officer	1861.00	2919.00	11.37
II Non Officers:			
A) Senior Assistant	1465.00	1734.00	3.68
B) Junior Assistant	1215.00	1519.00	5.00
C) Plant Attendant	1354.00	1627.00	4.03
D) Plant Operator	1300.00	1592.00	4.50
F) Electrician	1179.00	1465.00	4.86

Source: Records of TRCMU. 1991.

* These categories are representative and not exhaustive.

The above table indicates that during the last five years staff incomes have increased substantially.

²⁷ The figures relate to TRCMU. However, as staffing patterns and salary structures are similar in all OF institutions in Kerala, the salary structure in TRCMU can be extended to other institutions.

Officers especially have improved their financial status dramatically. The inability of OF institutions to keep down staff costs despite mounting losses needs to be explained. First, the workers in KCMMF are highly unionised with strong links to the political leadership outside the organisation. One of the largest unions in KCMMF owes its allegiance to the Indian National Congress. The elected officials of the KCMMF board, who take part in the negotiations for pay settlements, are professional politicians belonging to the Congress party. In such negotiations, labour unions are represented by outside leaders who are often senior to the Board members, in the Congress party hierarchy. There is thus a conflict of interest, which is often resolved through a generous pay settlement. Organisational resources are thus expended to lubricate inter-personal political relationships.

Higher managerial pay is linked neither to efficiency gains nor profits. Rather it would appear that there is an implicit trade off, with co-operative leaders trading higher managerial pay in return for greater operational control over the organisation. Over the last five years, co-operative elites have established supremacy over forums that were designed by the NDDB to be dominated by the technocrats. These include the Programme Committee of the Federation and the Personnel committee of the Unions. Co-operative elites in recent years have begun to assume control of routine decision making through the use of new sub-committees of the Board. In TRCMPU, for instance,

two new sub committees- the Purchase and Affiliation Committees were set up in 1990. The former consists of selected non-officials from the Board and finalises purchase contracts- a function formerly performed by officials answerable to the board. The potential for exploiting this strategic position for generating "rents" is obvious.

This gives us a macro overview of the rapid growth in expenditure. However, it does not explain why TRCMU was able to improve its position while ERCPMU continued to make losses. A comparative analysis of the expenditure patterns of the two unions reveals that the cost of handling one litre of milk in ERCPMU is substantially higher than in TRCMU. A study by the Centre for Management Development, Trivandrum in 1988, found that whereas the cost of procuring, processing and marketing a litre of milk was Rs 1.48 in TRCMU, it was Rs 1.60 in ERCPMU²⁸. This is because while total expenditure was higher in ERCPMU, the volume of milk handled was substantially lower. While in 1990-91, TRCMU's expenditure(excluding raw materials and stock transfers) was Rs 43.20 million, it sold on an average 121,700 LPD. In contrast, ERCPMU, while selling only 98,600 LPD had an expenditure of Rs 48.77 million. Thus, while volume of sales was 19% lower than TRCMU, expenditure was 13% higher.

²⁸ See: "A Report on the Study of Pricing of Milk". Centre for Management Development Studies. Trivandrum. 1988.

ERCMU faces the twin problems of lower sales and higher costs. While it is true that the Union functions in a more competitive market than TRCMU ²⁹, problems internal to the organisation appear to have been more decisive in the indifferent performance of the Union.

In 1987, following the election of a new Board of Directors, the incumbent Managing Director was dismissed and a new MD was appointed. This decision of the Board was perceived by both the government and the NDDB as illegitimate, as the guidelines for the selection of the MD was not observed by the Board. The government and the NDDB attempted to prevent the new MD from taking office. However, with the help of a court order, the Union was able to get its decision implemented. The power struggle however considerably weakened the autonomy of the MD. He was forced to cede a great deal of his executive authority to the Board Chairman in return for his support. Labour union leaders had also been approached to intercede with the government on the MD's behalf. This weakened his bargaining position with the employees of the organisation.

The loss of managerial autonomy had disastrous consequences for the organisation as a whole. Employees' productivity dropped and a "relaxed" attitude to work norms

²⁹ TRCMU does not have any organised competitor in its main markets. But in ERCMPU's main markets, People's Dairy Development Project (PDDP), a voluntary organisation sponsored by the church, is a very strong competitor.

was noticeable among the staff³⁰. More significantly, professional politicians on the Board, were now in a relatively better position to enjoy policy generated rents. Allegations about the impropriety of many decisions in respect of the purchase of goods and appointment of staff began to surface regularly.³¹

It is difficult to quantify the efficiency losses generated by the loss of managerial autonomy or the deployment of organisational resources for private gain. But the vastly different performance of TRCMU, where the technocracy, till recently, had considerable autonomy indicates that the costs are not insubstantial. However, there are indications that even here, managers have started to give ground to professional politicians. The new Board, which has assumed office in 1991, appears set to emulate the example of the ERCPMU board. The use of organisational resources for private political ends have thus contributed to the financial fragility of OF institutions. An examination of the financial performance of the two major

³⁰ The most significant illustration of this tendency was the inability of the ERCPMU management to implement a new productivity enhancement programme. The details of this scheme had been finalised in consultation with the representatives of the workers. But the erosion in the MD's power enabled the workers to scuttle the entire programme.

³¹ The apex federation, the government and the NDDB were regularly flooded with complaints detailing the alleged misdemeanours of the ERCPMU board. Responding to these allegations, the government first appointed an inquiry commission to go into some of the allegations. Then in 1990, following complaints, it stayed the decision of ERCPMU to appoint new staff.

non-OF unions in Kerala -- CMS and MDCMSU strengthens our argument.

SECTION III

Financial Performance of Non OF Institutions in Kerala: CMS and MDCMSU

TABLE V.14

Profit and Loss Statement of Non OF Institutions in Kerala: 1980-89

Rs in millions

Year	CMS		MDCMSU	
	Profit/loss Current	Profit/loss Accumulated	Profit/loss Current	Profit/loss Accumulated
1980-81	-0.18	-1.24	-0.48	-0.98
1983-84	+0.04	-0.95	-0.80	-3.04
1985-86	+0.29	-0.85	-0.40	-4.12
1987-88	+0.18	-0.15	-0.24	-4.59
1988-89	+0.24	+0.09	-0.67	-5.26

Source: Records of CMS and MDCMSU. 1991.

The two unions display contrasting financial profiles. CMS, although it started the decade with a loss, made profits in all the subsequent years. As a result it converted its accumulated losses into a small profit by the end of the decade. MDCMSU, on the other hand, continued to make losses.

Analysis of the records of MDCMSU, reveals that the Union's tendency to procure far more milk than it can

profitably market, is responsible for its recurrent losses. In 1989 for instance, out of the 12,600 LPD it procured, it marketed only about 55% profitably in the local markets. The balance was sold in external markets at a substantial loss. Milk purchased at Rs 3.68 per litre was being sold for Rs 3.53. The gap between purchase and sale price was even wider in the earlier years. In 1983- 84, milk, purchased at Rs 3.27 per litre, was being sold in external markets at Rs 2.50. It is obvious that such commercial practices can be continued only at the cost of imposing severe financial burdens on the organisation.

While no direct correlation can be drawn between fiscal irresponsibility and politicisation of the Board, it is relevant to note that CMS till 1987 had a largely non political Board. MDCMSU on the other hand was a cockpit of intense political rivalry. Political survival in MDCMSU, in the early eighties depended on the ability of the management to procure all the milk offered by member societies³². Fiscal rectitude was the main casualty in the struggle.

³² The roots of the conflict go as far back as the split in the Congress in the late Sixties. When the party split, the senior most leader of the party in Malappurum district, Aryadan Mohammed and the current chairman of MDCMSU, T V George were on opposite sides. Both had interests in the Union. Consequently, political rivalries which had their origins outside the Union began to impinge on its affairs. The Board, obviously felt that failure to lift all the milk of the farmers would be exploited by their political rivals both within and outside the organisation. Consequently, though it was financially ruinous, the Board continued its policy of buying dear and selling cheap.

Summary

In this chapter, we examined whether OF had been able to achieve its goal of correcting the distortions that plagued dairy markets in the pre- OF period. OF institutions, through their links with the NDDB and sister federations in the neighbouring provinces, were initially able to impart some stability to dairy markets in Kerala. But a combination of increased demand and reduced procurement induced widespread shortages during 1991 and 1992. While reduction in total production is a partial explanation, strategic choices made by key actors aggravated the problem. The NDDB's extensive strategy of milk procurement and the State's response to the 1989 crisis, the co-operative elite's strategy of selective incentives and intra group conflicts, have in varying degrees contributed to the present crisis in Kerala of chronic milk shortages .

We have analyzed the financial performance of OF institutions in some detail. The variations in the performance of organisations are to a significant extent dependent on the degree to which the Boards of these institutions have deployed organisational resources for generating political capital. Implicit bargaining within organisations has resulted in the co-operative elites winning operational control over routine decision-making in many areas. This control is exercised to produce policy generated rents to reward political allies and followers. This process however imposes a very high financial burden

on the organisation. On the one hand, powerful interest groups within the organisation such as the "technocracy" and trade unions have to be propitiated by generous pay settlements. On the other hand, rewarding political allies and compensating farmers through selective incentives such as subsidized inputs constitutes a continuous drain on the organisations' resources.

The supply of selective incentives, we have argued, can, in part, be explained by the failure of the co-operative elites to provide higher milk procurement prices to the farmers. Subsidized cattle feed and other inputs are thus offered instead of higher milk prices. Since the primary objective of OF is to provide remunerative prices for the produce of dairy farmers, this failure needs explanation. We now turn to an examination of these issues in Chapter VI.

The Politics of Milk Pricing

It is notoriously difficult to isolate and capture the economic returns that farmers derive from complex multi dimensional agrarian programmes. Such programmes cannot be viewed in isolation from the changes that occur within the larger agrarian economy¹. Further, the farmer is both a producer and a consumer. As Bates observes, the farmer operates simultaneously in three markets- the product market, the input market and the market for consumption goods². The real income of the farmer is therefore a function of the interaction of these three markets.

Any attempt to evaluate the economic benefits that Kerala farmers have derived from the OF programme runs into a number of difficulties. First, as we have observed in previous chapters, dairying is marginal to the vast majority of farmers in Kerala. Consequently, it would be difficult to evaluate whether the programme has had an impact - positive or negative on farm incomes. Second, little comparative data is available on the differential

¹ Changes in cropping pattern, the presence or absence of plentiful supply of fodder, changes induced in the composition of the bovine heard as a response to larger agrarian changes; all these tend to profoundly influence the economics of the dairy industry.

² See Bates R H: 1981 and 1988. op cit

growth of farm incomes in OF and non-OF areas. In any case, the reliability of such data, as a basis for judging farm incomes, is suspect. This is because, the OF programme first covered areas which were already well endowed. Hence it would be difficult to net out the benefits that have accrued to the farmers through the programme specifically, from the benefits that arise due to the differences in initial endowments.

Therefore, we do not propose in this chapter to attempt an impact study of the economic benefits of OF in Kerala. Instead, we shall first examine whether farmers in Kerala perceive that the programme has benefitted them. Second, following Bates, we shall briefly examine how Kerala farmers in general and dairy farmers, in particular, have fared in the three markets identified above. Third, we shall analyze whether the institutional framework, which was designed to empower farmers, has succeeded in the twin tasks of achieving higher product prices with greater accountability.

SECTION I

OF and the Dairy Farmer

In the course of the field survey, we observed that farmers, especially in Malabar, harboured ambiguous feelings about OF. To a specific question about who has benefited most from the programme, only 48% of the respondents replied that farmers benefited most. But this

all Kerala statistic masks very major regional differences. Thus, 83% and 75% of the respondents in Ernakulam and Trivandrum regions, respectively, stated that farmers benefited most, while the corresponding figures for Malappuram and Kozhikode districts were 21% and 11% respectively.

These regional variations can be explained by the fact that the programme has been in operation for nearly ten years in south/central Kerala, while it was introduced into north Kerala only in 1989-90. The introduction of the programme in Malabar was accompanied by the cessation of a number of traditional practices including the vendor system and the incentive price during the lean season (See Chapter IV). The sudden transition from one system to another could have biased the perceptions of the farmers against the programme in Malabar.

However, farmers all over Kerala appear to be unhappy about the sum total of benefits that the programme has provided. Only 21% of the farmers in Kerala as a whole, felt that APCOS had provided them with all the services they expected when they joined the society. Milk prices were the overriding concern of the majority of the farmers. Two questions were asked to determine the perceptions of farmers about the prices offered by the societies. 86% of the farmers responded that when compared to prices prevailing in the local markets, the price offered by the society was unsatisfactory. There appears, however, to be

substantial regional differences. While 87% of the farmers in Malappurum found that prices were unsatisfactory, only 66% in Trivandrum agreed with this view. The gap between open market prices and the prices offered by the society were wider in Malappurum than in Trivandrum.

However, there are no such regional variations when asked about the prices offered by the society in relation to the cost of production. Nearly 90% of farmers in all four regions replied that prices were unsatisfactory. This would suggest that while farmers are concerned about the disparity between market prices and society prices, they are far more agitated about the inability of the organisation to provide them with a price that would enable them to break even³.

Interviews conducted with local co-operative leaders confirm the findings of the survey: farmers are disenchanted with the prices offered by the programme. Increasingly, they view dairying as an unprofitable activity. This was not the situation at the beginning of the programme. In the early eighties, OF was perceived as a viable instrument through which farm incomes could be augmented. A number of studies have shown that farmers were

³ We may note that similar surveys in the past have found that farmers were unhappy about the prices offered by the society. The survey by the Centre for Development Studies, Trivandrum, in 1987-88 found that 79% of the respondents were unhappy about the existing price structure. See George P.S and Nair K.N. 1990. op cit.

taking up dairying as a means of livelihood.⁴ About 45% of the respondents stated that they had started dairying as a source of livelihood. The regional variations in the response are significant. Over 58% of the farmers in Trivandrum stated that they started to keep cows in order to earn their livelihood as against only 29% in Kozhikode district. Since OF has been in existence in Trivandrum for over a decade, while it was only recently introduced in Kozhikode, the difference in response could imply that OF has been a crucial factor in encouraging people to take up dairying.

The rationale for taking up dairying has significant policy implications. If dairying is largely taken up for consumption purposes- to meet household demand- then the economics of milk production may not be crucial for the farmer. He may be willing to suffer a temporary monetary loss. But for those farmers who take up dairying for commercial reasons, the inability to break even will have disastrous consequences. Farmers' perceptions therefore are significantly coloured not only by the objective reality of the price structure, but by the subjective rationale that induced them to enter the industry initially. Given the fact that a significant percentage of the small farmers in Kerala had been lured

⁴ The Centre for Development Studies, found that since the programme started in Kerala, a significant number of small farmers have tended to become cattle owners. It noted in 1987, that about 30% of the small farmers have started maintaining cattle only during the last five years and concludes that the ownership pattern indicated a definite tendency that acquisition of cattle among small holdings was a recent tendency. *ibid.*

into dairying by the potential benefits of OF, the failure of the programme to provide a remunerative price for milk has tarnished the image of the programme in the eyes of many farmers. We now turn to examine whether this assessment of the programme by the farmers is in fact valid.

Markets and Farmers in Kerala

We had observed earlier that a farmer's real income is dependent on the interaction of three markets. Even if product prices are increased through institutional intervention, when farmers experience adverse conditions in input markets and the market for consumption goods, then the net benefits to the farmer may be negative. Therefore, analysis of dairy markets alone may not be sufficient to understand whether a specific dairy programme has increased farm incomes in real terms. Analysis of the performance of the larger agrarian economy would also be necessary.

We have in Chapter II, seen that since the mid eighties, growth rates in agriculture had been stagnant. A more detailed analysis reveals that farm incomes in general had declined in real terms during the eighties. The most reliable indicator of this declining trend is the parity index which is a ratio of the prices received by the farmer to those paid by him.⁵ The index has therefore two

⁵ The parity index is prepared annually by the Department of Economics and Statistics, Government of Kerala. To calculate the index of prices received, the following agricultural farm products, which have a marketable surplus are taken into account: Paddy, Coconut, Cashew, Arecnut, Ginger, Pepper, Banana, Tapioca

components: prices received and prices paid. The index of prices received is computed by taking the average price quoted in the district and sub district markets for a basket of agricultural commodities. The index of prices paid has two components: farm cultivation costs and domestic expenditure. The former is computed by taking the average cost of inputs such as wages, agricultural implements, manure and livestock. In the absence of separate cost of living indices for farmers, the consumer price index has been used to calculate the index of domestic expenditure.

TABLE VI.1

Index Numbers of Parity Between Prices Paid and Received by Farmers in Kerala:1980-90.

Year	P/REC*	D/EXP*	C/COST*	P/PAID*	Parity Index
1980	481	441	607	518	93
1981	516	501	704	594	87
1982	539	530	776	641	84
1983	688	600	835	707	97
1984	883	666	1086	850	104
1985	783	685	1157	896	88
1986	921	745	1299	986	93
1987	1063	804	1413	1066	100
1988	1044	860	1520	1143	91
1989	1017	897	1604	1200	85
1990	1044	935	1711	1265	83

* P/REC= Prices Received. D/EXP= Domestic Expenditure.

C/COST= Cultivation Cost. P/PAID= Prices Paid.

Source: "Economic Review". Various Issues. op cit.

and Sugar cane.

A number of observations may be made from the above table. First, during the eighties, except for two years, the parity index has been negative, indicating that real incomes of the farmers have been declining during the period. Second, since 1987, the index number for prices received has dropped in absolute terms. This would suggest that stagnating or even declining trends in farm gate prices have contributed substantially to the negative returns of the farmers. Third, we may note that farm cultivation costs have been rising more rapidly than domestic expenditure. Thus, between 1980 and 1990, while domestic expenditure grew at an annual average rate of 10%, input costs grew by 17%. The above analysis indicates that factors within the agrarian economy are primarily responsible for the rapid decline in farm incomes during the eighties.

Our analysis has thus shown that farmers in general have seen their real incomes eroding during the eighties. But the analysis does not give any clues as to the performance of the dairy farmer. In Table VI.2 below, we give the index numbers of prices paid and received by dairy farmers.⁶

⁶ We have given the prices of the inputs that are most commonly used in Kerala. No attempt has been made to arrive at a common index of all the inputs. Such an exercise would be futile given that farmers in different parts of the province and in different economic classes use the various inputs in different proportions.

TABLE VI.2
Index of Prices Paid and Received by
Dairy Farmers in Kerala:1980-90.

Base 1970 = 100

Year	Groundnut Cake	Coconut Cake	Cotton Seed	Paddy Straw	Milk
1980	378	230	216	192	189
1984	373	338	358	913	283
1986	349	262	360	1105	310
1988	500	364	482	1235	349
1990	570	380	531	1235	380

Source:Field reports of the Department of Animal Husbandry,
 Government of Kerala.

Except for coconut cake, the index numbers for all the other inputs are substantially higher than milk. The index numbers for paddy straw, which is the main source of roughage, is especially significant. It is also pertinent to note that whereas between 1980 and 1986, the index numbers for milk moved by 121 points, between 1986 and 1990, it moved by only 70 points, pointing to the relative stagnation of milk prices since the mid eighties.

We now turn to examine whether milk prices have increased in real terms during the OF period.

TABLE VI.3
Prices Offered by OF Institutions at Constant
Prices: 1980-90
Rs per litre*. 1980 prices.

<u>Year</u>	<u>Price</u>
1980-81	2.34
1982-83	2.06
1983-84	1.82
1984-85	2.00
1985-86	2.01
1986-87	1.86
1987-88	1.97
1988-89	1.88
1989-90	1.96

*Quality= 4.5% Fat, 8.5% Solids non Fat. Source: Records of KCMMF.

The above figures indicate that the prices received by dairy farmers have declined in real terms during the eighties. Between 1982 and 1990, prices dropped by 16%. Thus, contrary to the professed aims of the programme, OF, like its predecessors, has been unable to ensure a remunerative price for the dairy farmers of Kerala.

The Economics of Milk Production

The combination of high input costs and low output costs has contributed to the perception that dairying is an

unprofitable activity. The lack of a remunerative price is especially damaging to producers who are dependent on the market for the bulk of their inputs. Several studies conducted by different agencies confirm the perception of the farmers that dairying in Kerala is a decreasingly profitable activity. We give below a brief summary of a few of these studies.

One of the earliest studies conducted in the eighties, is that of the National Bank of Agricultural and Rural Development.⁷ Through an intensive study of Quilon district, the study examined whether dairying was economical in Kerala. The reference period for the study was 1982-83 and as such gives an idea of the economics of dairying at the very beginning of OF. In calculating the cost of production the study took into account actual cash expenses, the imputed cost of home grown fodder and family labour and the interest on capital. On the basis of these costs, the study found that as against an average gross realisation of Rs 2.30 per litre, the farmer's cost of production was Rs 2.88.

The study by the Directorate of Animal Husbandry surveyed 96 households in four districts.⁸ In order to capture the cyclical variations in milk production, the study covered an extended period of thirty months from

⁷ "Dairy Development in Quilon District: An Ex Post Evaluation Study". Economic Analysis and Publications Department, National Bank for Agricultural Development. Bombay. 1987.

⁸ "Report of the Study on Cost of Production of Milk in Kerala - 1984-87". Department of Animal Husbandry. Government of Kerala. Trivandrum, 1987.

November 1984 onwards. The study estimated cost of production on the basis of components such as feed costs, paid and unpaid labour, depreciation on animals and other assets, interest on capital and miscellaneous recurring expenditure. The study found that on an average, the cost of production of a litre of milk during the period 1984-86 was Rs 3.02 per KG. Since the purchase price of milk was between Rs 3.14 and Rs 3.47 per KG during the period, it would appear that dairying was profitable.⁹

The Centre for Development Studies estimated the cost of production of milk for the period 1987-88, on the basis of out of pocket expenses alone.¹⁰ The study found that the cost of producing a litre of milk from a cross-bred cow during the period was Rs 3.70. Comparing this price with prevailing local market prices, the study found that returns do not cover costs. If imputed costs such as family labour were included, then it becomes very evident that the " prevailing price does not offer adequate returns to family labour".¹¹

The most recent study was commissioned by the Government of Kerala.¹² In response to persistent demands by the farmers to raise the price of milk, the government appointed a committee in 1991 to go into the whole question

⁹ ibid

¹⁰ See George P S and Nair K N. 1990. op cit.

¹¹ ibid.

¹² See " Report of the Committee on Milk Pricing". Secretariat. Department of Agriculture (Dairy). Government of Kerala. Trivandrum.1991.

of milk pricing. The committee found production costs were substantially higher than milk prices during the period 1987 to 1991, as the following figures indicate:

TABLE VI.4

Production Costs in the Dairy Industry in Kerala:1989-91

	1987	1988	1991
Production Cost: Rs/litre	3.75	4.58	4.97
Purchase Price : Rs/litre	3.44	3.87	4.22

Source: Report of the Committee on Milk Pricing.1991. op cit.

On the basis of this finding, the government agreed with KCMMF's decision to raise milk prices in February 1991.

We have delineated above, the results of four studies that have attempted to assess production costs in the dairy sector during the OF period. Three of the four studies have found that prices received by the farmers are substantially lower than production costs. A word of caution however is in order. It is extremely difficult to capture the production cost of an activity that is marginal to the total income of the majority of farmers. The opportunity cost of labour is usually very low and farmers supplement purchased inputs with large quantities of home grown feed and fodder. The proportion in which these are

used vary from farm to farm, making the task of calculating uniform production costs very difficult. Further, farmers tend to underestimate returns and overestimate production costs.

However, despite these reservations, there is sufficient evidence, as we have seen, to conclude that production costs, especially when imputed costs are taken into account, have been higher than milk prices. The unfavourable movement of relative prices is especially destructive in an economy dominated by marginal producers. Over 97% of the holdings in Kerala are less than one hectare. Farmers with small holdings are far more dependent on the market for inputs than farmers with larger land holdings. Consequently, the rising cost of inputs imposes a proportionally higher burden on the small and marginal farmers than on the comparatively better off farmers. Thus, at a time of stagnant milk prices, and rising input costs, the scale bias inherent in the dairy economy would tend to have a differential impact on small and large farmers.

This is confirmed by a study conducted by the Centre for Management Development in 1987.¹³ The study found that when production costs are computed on the basis of cash expenditure only, the farmer earns a profit of only RS 49 per month when he has one milking cow. But the profit goes up to Rs 514 per month, when he has three cows. In other words, the larger the herd size, the lower the unit cost of production. However, since farmers with larger

¹³ "A Report on the Study of Pricing of Milk". 1988. op cit.

herds also tend to have larger holdings,¹⁴ the lower production costs would most likely be due to lesser dependence on the market for inputs, than due to any efficiency gains derived by greater herd size. Structural constraints within the agrarian economy of Kerala, such as low per capita holdings of land and cattle, paucity of feed and fodder, have all contributed to high production costs. To reverse the negative returns of the farmer, either production costs have to be lowered or output prices have to be substantially increased.

Production costs are dependent on a number of factors. Any possibility of substantially reducing input costs through the provision of subsidized inputs by the State or its agencies is remote. Given the fact that currently only about 10% of concentrate feed requirements of the dairy farmers is met by the co-operative sector,¹⁵ any further expansion in coverage will require investment of a very high order. The financial viability of such an exercise is suspect. A more feasible alternative is to increase the productivity of the existing milch stock through better management practices. Among the measures suggested to increase productivity are: increasing the reproductive efficiency of the milch stock, by reducing the

¹⁴ The CDS study, clearly found a correlation between size of holdings and herd size. Thus 21% of the households had less than 10 cents of land and they accounted for just 6% of the total cattle population. On the other hand 10% of the households with more than 250 cents of land accounted for 26% of the cattle population. See George P.S and Nair K.N. 1990. op cit.

¹⁵ Confidential records of KCMMF.1991

age of first calving and the inter calving period; second, strengthening the extension system to impart improved management practices to the farmers and third, introducing a better health care system.¹⁶

These measures can become operational only in the medium to long term. The proximate remedy for the unprofitability of the dairy sector is an increase in the purchase price of milk. Given the fact that demand for milk products continues to be high in Kerala, the inability of the market to increase milk prices needs to be examined.

SECTION II

The Politics of Milk Pricing in Kerala.

The market's failure to provide higher prices to dairy farmers can be attributed primarily to two factors: the structure of the dairy market in Kerala and the organisational weakness of KCMMF.

The Structure of the Dairy Market

Dairy farmers in Kerala have operated simultaneously in several product markets : the preferred outlets are local consumers within the village such as neighbours and tea shops where the average price received by the farmer from local sales is at least 10% higher than the price realised from sales to co-operatives; but since the absorptive capacity of local markets is comparatively low, farmers are dependent on the co-operative sector to

¹⁶ See George P S et al: " Policy Options for Cattle Development in Kerala". Centre for Development Studies. Trivandrum. 1989.

market the milk that cannot be profitably disposed off in the local markets.

The KCMMF is the largest single market agent in all the major urban markets in Kerala, but the organisation controls less than 10% of the marketable surplus in Kerala. This market profile constrains the ability of KCMMF to use price as a mechanism for augmenting milk supplies. The low volume of marketable surplus controlled by the KCMMF enables other market agents to capture the benefits of a price rise engineered by the KCMMF. This is especially true in markets where rival market agents have a significant share of the market.

The above proposition can be tested by analysing the supply response of farmers to a price rise¹⁷. In February 1991 the KCMMF raised milk prices by 10%. In the Trivandrum region, procurement increased in all the five sample societies studied in depth, at rates ranging from 4% to 50%. In the region as a whole the average daily procurement increased from 61,933 LPD to 81,458 LPD, an increase of 32%. In Ernakulam on the other hand, only in one of the four sample societies did procurement increase; in two societies procurement actually dropped after the price rise while in one it remained the same. In the region as a whole procurement increased only by 7% after the price rise.

¹⁷ The supply response is obtained by analysing the average daily collection for one month prior to and after a price rise. Data for the regional union as a whole as well as data from individual societies were collected. Source: Field Survey June-July 1991.

We would argue that the differential supply response of the farmers in the two regions is a product of the degree to which the organisation has control over the market. In Trivandrum city, for instance, KCMMF controls more than 75% of the market. In Ernakulam on the other hand less than 40% of the market is estimated to be controlled by KCMMF.¹⁸ Moreover, in Ernakulam, KCMMF has a prominent rival in the People's Dairy Development Project (PDDP), now, the largest non-OF institution in Kerala. Consequently, any price increase by KCMMF is quickly matched by the PDDP and other agents.¹⁹ The greater market share in Trivandrum enables the organisation to capture a larger share of the benefits of a price hike while the comparatively weaker control over markets in Ernakulam reduces the organisations capacity to profit from a price rise.²⁰ It is only in

¹⁸ Confidential Records of the KCMMF. 1991.

¹⁹ The Chairman of the People's Dairy Development Project, one of the largest non-OF institutions in Kerala, informed the author that their pricing strategy is linked to that of KCMMF. Whenever the latter raises its price, PDDP also raises its price, though with a higher margin so as to attract more farmers to its fold. If for instance, KCMMF raised its price to Rs 4.25 per litre, PDDP would offer Rs 4.75 or Rs 5.00 per litre. Interview with Father Muttamana, Chairman PDDP, 19/6/91, Alwaye.

²⁰ This situation makes KCMMF vulnerable to what Olson described as the "surprising tendency for the exploitation of the great by the small". Olson pointed out that in groups dominated by one large member, the disproportional gains accruing to various members would encourage the smaller members to free ride. See Olson M. 1965. op cit.

As KCMMF is the largest single agent in the dairy markets of Kerala, it generally bears the transaction costs involved in securing a higher price for milk. It lobbies with the government for permission to raise milk prices and bears much of the criticism levelled by consumer groups. But once KCMMF has raised its price other agents immediately follow with similar increases and captures the bulk of the benefits flowing from the price rise.

Trivandrum that the KCMMF completely dominates the market: in other urban markets, it is vulnerable to varying degrees of free riding by other market agents. The organisation therefore ends by bearing all the transaction costs involved in a price rise, while deriving sub optimal benefits from it. This reduces the incentive for using price as an instrument for augmenting milk supplies.

A further constraint is that producer prices are already among the highest in India as the following figures indicate:

TABLE VI.5

Average Procurement Price of Milk in Selected States of India: 1981-91.

Rs/litre Quality: Fat:4.00% SNF: 8.5%

Province	1981-82	1985-86	1987-88	1990-91
Punjab	1.73	2.43	2.79	3.68
Gujarat	1.93	2.51	3.45	3.54
West Bengal	1.93	2.54	3.08	3.62
Andhra Pradesh	1.88	2.74	2.91	3.46
Karnataka	2.69	3.30	3.73	3.85
Tamilnadu	1.94	2.88	3.02	3.78
Kerala	2.69	3.30	3.73	4.19

Source: NDDB. Anand.1991.

From the above figures it is evident that milk prices in Kerala has consistently remained higher than those prevailing in the rest of India. The difference between Kerala and the adjacent state of Tamilnadu (TN) is especially pertinent for our analysis. The much lower procurement price in TN has two implications. First, cheap milk will flow in from TN if KCMMF raises its prices without any reference to the prevailing prices in TN. In periods of shortages, this will not depress the markets. However, as we observed in chapter IV, during the first half of the eighties, markets were generally in equilibrium. Consequently, KCMMF was careful not to disturb the equilibrium by raising producer prices to levels that were totally incompatible with prices generally prevailing in the region.

Second, an excessively high procurement price handicaps the organisation. Other provinces, having comparatively lower procurement prices, are unwilling to buy from KCMMF at the rates prevailing in Kerala. Consequently, in times of flush, KCMMF is forced to sell either at rates well below market rates or cannot sell at all.²¹ In the former case, the organisation suffers enormous losses; in the latter case, the organisation is forced to declare procurement holidays.

²¹ In 1988-89 3.74 million litres of milk, priced on an average at Rs 4.87 per Kg was sold to neighbouring provinces at prices ranging from Rs 3.80 to Rs 4.00 per KG. Confidential records of KCMMF. 1991.

The commercialisation of the dairy markets in Kerala and the increasing closer links that this forges with the national markets via the National Milk Grid force some painful choices on the organisation. On the one hand the comparatively high production costs in Kerala compel KCMMF to offer a price that is substantially higher than those prevailing in the region. This imposes little cost as long as scarcities exist in the market. But, if, as the government intends, dairying is to be used as an instrument for stimulating the agrarian sector in Kerala, the resultant milk surplus will have to be procured by the organisation and disposed off in the national markets. This would entail a choice between lowering the purchase price so as to reflect national prices or allowing the organisation to suffer continuous losses.

Organisational Weakness.

The increasing vulnerability of the organisation to State pressure is perhaps the single most important factor standing in the way of higher procurement prices. This vulnerability manifests itself in a number of key areas such as investment strategy, personnel policy and pricing decisions. We may recall from Chapter III that the conditionalities attached to the OF programme, enjoined the State not to intervene in the routine decision making process of the organisation. However, over the years, the government has managed to reestablish control over key areas such as pricing and staffing decisions. This process

can be illustrated by tracing the development of milk pricing policy in Kerala.

Prior to the formation of KCMMF, the pricing policy of the State run dairies was fixed by the Secretary to the Government in consultation with the concerned minister. This practice was continued even when all the government dairies were amalgamated into an autonomous public sector corporation - the KLDMMB.

The State's desire to control pricing decisions was primarily motivated by its desire to ensure that urban milk prices did not increase too rapidly. This is clear from the opposition of the government to a suggestion made by the Government of India that a committee should be appointed by the Kerala Government to recommend remunerative prices for milk producers. The Board of Directors of KLDMMB, consisting of government officials, rejected the suggestion on the ground that a committee would reflect producer interests and therefore prices would be fixed in an arbitrary manner.²² The suggestion for an independent committee to advise the government on fixing producer prices was, therefore, rejected and government continued the practice of fixing the purchase and sales price of milk.

The formation of KCMMF however necessitated the withdrawal of the government from directly intervening in pricing decisions. The decision to increase prices in 1984 and 1987 was taken by the Board of Directors of KCMMF with

²² Noting on the confidential files of KLDMMB. 27/1/1977.

little interference by the government. The next price rise proposed in early 1989 was actually carried out only in September 1989, due to the opposition of the government. In 1989, the government had used persuasion to delay the price rise; but by late 1990 more direct and coercive measures were being employed.

On 15/12/90, the Board of KCMMF decided that milk prices would be increased from 1/1/91. The government then summoned the Chairman and Managing Director of the Apex Federation for a discussion on the proposed price hike and attempted to dissuade them from increasing the price. Subsequent to that meeting, the government, though it had no authority to do so, stayed the decision of KCMMF to increase prices until such time as a committee constituted for the purpose would give its recommendations. Only when this committee, which consisted mainly of government officials, recommended an increase of Rs 0.50 was the KCMMF able to increase its purchase and sales prices.

This history of pricing policy in Kerala indicates that while during the early eighties the KCMMF had considerable autonomy in pricing decisions, by 1991 pricing decisions were in effect being taken by the government. The proximate reason for this change in government policy appears to be the pressure exerted by the dominant urban groups. The price hike of 1987, was actually opposed by the groups based mainly in Trivandrum. However, the opposition was voiced only after the decision was taken

and implemented.²³ In 1989, the dominant groups were aware of the intent to raise prices well in advance of the actual decision. Consequently, they had sufficient time to lobby the government, and though they were unable to prevent the price rise, they were able to postpone it by over six months.²⁴ By 1991, however, with the government taking over pricing decisions, power had effectively been transferred from producer groups to dominant urban groups.

Analysis of consumption patterns indicate that the State's decision to control milk prices cannot be justified on any social welfare maximizing principle. Milk consumption in urban Kerala is restricted to upper income groups as Table VI.6 indicates.

The table indicates that the consumption of milk is directly correlated to income. Since milk, in contrast to cereals, constitutes only a small percentage of the expenditure of the lower income groups, price controls cannot be justified on grounds of maximising the interests of the majority of the population. Rather, as we have indicated previously, they are a response to the pressure exerted by well organised, dominant groups in the polity.

²³ Interview with Managing Director of TRCMPU.25/5/91.

²⁴ Several tactics are adopted by the consumer groups. The most effective was to get the mass media to write editorials condemning the price rise. The price hikes of KCMMF, were usually accompanied by a spate of articles, condemning the inability of the organisation to keep down prices.

TABLE VI.6

Analysis of Urban Expenditure Patterns in Kerala:1986-87.

Rs/ per month

Monthly Expenditure Class	Cereals	%	Milk and Milk Products	%	Total Food
50 - 60	16.65	48.8	0.97	2.8	34.13
60 - 70	19.61	49.1	2.99	7.5	39.93
70 - 85	24.69	46.6	2.77	5.3	53.00
85 - 100	20.49	37.3	5.20	9.5	54.98
100 - 125	28.01	40.7	5.43	7.9	68.85
125 - 150	32.03	34.9	7.40	8.1	91.85
150 - 200	36.91	33.8	11.12	10.2	109.25
200 - 250	38.29	30.1	12.13	9.5	127.41
250 - 300	41.08	27.5	26.21	17.5	149.41
300 & above	40.04	25.4	32.45	17.9	181.43
All Classes	34.57	--	14.07	--	109.33

Note : Percentage represents the share of the commodity in total food expenditure.

Source : Sarvekshana, April- June 1989. Results of NSS 42 Round (1986-87). Department of Statistics, Ministry of Planning, Government of India.

The foregoing analysis indicates that a programme which had set out to protect farmer incomes through a producer dominated institutional framework, had by the end

of the decade succumbed to the dominant interest groups in Kerala.

Loss of Autonomy: The Reasons.

The erosion in the organisations' capacity for autonomous decision making is due to a complex set of factors operating simultaneously. We shall attempt to identify some of these factors.

(1) Intra Organisational Problems.

Internecine conflicts within the organisation eroded its ability to withstand external pressure. The most significant of these conflicts was between the apex federation and regional unions. Chapter III showed that the institutional framework of OF institutions was so designed as to weaken the apex federation. The federation, in the NDDB's scheme was expected to wither away after organising the regional unions and establishing the processing plants. However, neither the Chairman nor the executives of the federation were willing to accept the marginal role allotted to them by the NDDB. The result was a series of skirmishes between the the federation and the unions over a whole range of issues: from personnel policy to marketing strategies. Union-federation disagreement over personnel policy came to a head over the appointment of the Managing Director of ERCMPU, to which we had referred in Chapter IV. The inability of the NDDB to prevent what they regarded as an illegal appointment, brought about a major realignment

of forces in the KCMMF Board. The NDDB now began to work in tandem with the federation and government to prevent the unions from making fundamental changes in the organisational structure of the programme in Kerala.

As a result of this realignment, the State now had greater freedom to intervene in the affairs of the union and the federation. When the government stayed the decision of the ERCPMU Board to recruit personnel, the NDDB did not raise any objection, though such an order patently violated the conditionality of non- intervention in the personnel policy of the organisation. A significant illustration of the new understanding between the NDDB and the government is seen in the appointment of an IAS officer as the Managing Director of MRCMPU, the newly formed regional union in Malabar. Up to that time, only technocrats had been appointed to such posts in Kerala. But the government, mindful of the ERCPMU experience wanted to exercise greater control over the affairs of the new union. So it posted an IAS officer who would be answerable primarily to the government and not to the Board of MRCMPU. Given the NDDB's vociferous opposition to bureaucrats heading co-operative institutions, acquiescence in this decision is an eloquent statement of the new understanding between the government and the NDDB.

A more recent illustration of the active collaboration between the government and the NDDB was over the attempt of the co-operative elites to increase the life of the Board. In 1990, the TRCPMU board, decided to enhance

the life of the Board from three to five years. The senior executives of the apex federation, as well as the NDDB, were against this decision. As the NDDB had no legal powers, they approached the government, and the government on the advice of the NDDB refused permission.

Intra group conflicts between the co-operative elites also strengthened the position of the government. We have referred previously to the conflicts between the co-operative leaders of Malabar and those in south Kerala. With rival groups invoking the power of the State in jockeying for power and influence, the State was able to play one group off against the other, enhancing its relative power in the process. The appointment of the first board of MRCMPU illustrates our argument. All the board members were political appointees, few of whom had any intimate knowledge of the dairy industry. More significantly, none of the leaders of pre-OF co-operative institutions in Malabar was appointed to the board. Thus, the conflict between the various actors within the organisation enabled the government to appropriate more powers.

(2) The Decline of the NDDB

The erosion in the relative power capability of the NDDB is one of the major reasons for the decline in the autonomy of OF institutions in Kerala. The NDDB's strategy, while designing the project, was to interpose itself as a buffer between the government and the co-operatives. Over

the years, the ability of the NDDB to continue to play the role of the shock-absorber has declined owing to a variety of factors. First, the OF programme is drawing to a close in Kerala. The existing projects are in the final stages of execution. Consequently, the NDDB can no longer use the threat of stopping the inflow of finance to bring recalcitrant unions into line. Second, OF III was negotiated by the NDDB with the World Bank after a great deal of difficulty. The Bank had insisted upon more stringent tests of financial viability before new projects could be sanctioned. Therefore, unlike in the past, the NDDB's ability to sanction new projects was severely circumscribed.²⁵

The difficulties faced by KCMMF in obtaining sanction for a new milk powder plant best illustrates the gradual erosion of NDDB's relative power position. Unlike other provinces, Kerala did not have a powder plant that would enable the organisation to conserve excess milk during the flush months. Project proposals submitted to the NDDB were rejected on the ground that they were economically unviable.²⁶ Faced with the NDDB's refusal, the federation approached the government, who provided a token provision of Rupees one million in the 1989-90 budget. Then, in September 1989, the NDDB agreed to sanction the

²⁵ In OF- I & II, the NDDB had considerable autonomy in making investment decisions. In OF-III, considerable pressure was brought to bear on the NDDB by the World Bank, to make more stringent the conditions under which new projects were sanctioned.

²⁶ Confidential Records of the KCMMF.1991.

powder plant with the proviso that any losses made by the plant would be met by the Government of Kerala.

The conflicts over the powder plant eroded the credibility of the NDDB in Kerala. Both the co-operative elites and government officials came to believe that the NDDB was either unwilling or unable to sanction new projects. This enhanced the governments' profile within the organisation.

Third, the dependence of the NDDB on the Kerala government for collection of repayment dues from the unions further undermined the NDDB's position. In late 1989, the Kerala government, following a request by the NDDB, initiated a series of discussion with the KCMMF on repayment obligations to the NDDB. These discussions were used by the government to establish first review and subsequently operational control over the functioning of the union and federation.²⁷

Fourth, the 1989 crisis of excess production (See Chapter IV), further strengthened the relative power position of the government. The NDDB's claim to provide stable markets for dairy farmers was undermined by their failure to help the OF institutions to dispose off their excess milk. The NDDB's failure enabled the government to intervene and issue operational directions to the federation to deal with the crisis. 1989 was, thus, a watershed in State-NDDB relations and constituted the first

²⁷ ibid.

significant step in the eventual subordination of the entire programme to the larger interests of the State.

Fifth, exogenous policy changes at the national level weakened the NDDB. In 1988, the Government of India launched the Technology Mission for Dairy Development. The underlying rationale for OF had been to wrest decision making powers from the State and entrust them to producer owned/technocrat controlled institutions. To that end, OF duplicated many programmes, including Animal Health Care, Artificial Insemination and distribution of inputs, performed by State agencies. The Technology Mission insisted that such duplication of resources was wasteful and recommended that the NDDB should dovetail its policies with the ongoing programmes of government agencies.²⁸ This meant that in future, the NDDB had to work with rather than in isolation from State agencies.

The proposed management structure for the Technology Mission in the various provinces is especially pertinent for this analysis. The implementation of the various programmes under the Technology Mission was to be coordinated and monitored by a committee headed by the Chief Secretary.²⁹ The composition of the committee and its

²⁸ See: "Technology Mission for Dairy Development". NDDB. Anand. 1988.

²⁹ ibid. The Co-ordination committee in the provinces is to consist of the following persons: (1) Secretaries to Government in the departments of Animal Husbandry, Dairy Development, Rural Development, Agriculture and Co-operation. (2) Vice Chancellor of the Agricultural University. (3) Animal Husbandry Commissioner, Government of India. (4) Mission Director- an NDDB representative. (5) The Chairman and Managing Director of the apex federation.

broad terms of reference clearly indicate that, the Government (both federal and state), which in the seventies and early eighties, had delegated most of its policy making authority to the NDDB, was making a major comeback.³⁰ These policy changes at the national level, had an impact in Kerala and further weakened the bargaining position of the NDDB.

(3) The Subordination of the Co-operative elites.

The erosion in the NDDB's power was paralleled by a growth in the power of the co-operative elites. OF institutions in Kerala were more democratic than their sister institutions in the rest of the country. Elections were held regularly in Kerala and the office bearers of the organisations were elected and not appointed.³¹ Many of the decision making bodies in the OF structures such as the

Apart from review and co-ordination, the State committee will also have the responsibility for advising the national co-ordination committee on fixing national targets. The departure from OF practices, in which the NDDB finalises the project and then discusses it with government officials, is obvious.

³⁰ Several observers have noted that the NDDB, over the years, had been vested with a degree of authority over policy making that properly belongs to the government. Consequently, it is alleged that the NDDB had become " an additional layer of government". See Doornbos M et al. 1990. op cit.

If this analysis is accurate, then, through the Technology Mission, the State is attempting to wrest back some of the policy initiatives, which it had delegated to the NDDB over the years. Also, it may not be entirely coincidental that for the first time, a full secretary was posted in the Department of Dairy, in Government of India in 1991.

³¹ In contrast, in Tamilnadu, elections to the co-operatives were not held for over sixteen years. The Chairman of the federation and the unions were appointed by the government . OF institutions in Tamilnadu, therefore, were more like public sector corporations than co-operative institutions.

Programme Committee of the Federation and Personnel Committees of the unions came to be dominated by the co-operative elites. These democratic traditions of OF institutions in Kerala and the strategic positions occupied by the co-operative elites should have guaranteed greater autonomy to OF institutions in Kerala. Their failure to do so, therefore, needs to be explained.

A partial explanation could be the non-representative nature of the co-operative leadership in the primary societies. We have noted in Chapter IV that one of the major objectives of OF, was to empower dairy farmers through an organisation that would be owned and operated by farmer members. To prevent non-farmer interests from taking over the organisation, the APCOS bye-laws provided that only farmers who were regularly supplying milk to the society would be allowed to take part in the decision-making process.

Analysis of data collected through our field surveys indicate that this proviso has had limited success in ensuring that only genuine farmers are elected to decision-making forums. Resourceful individuals get around this proviso in a variety of ways. One favourite ploy is that potential candidates start to pour large quantities of milk in the weeks immediately prior to the election. We also observed a sudden increase in the number of pouring members in the weeks immediately prior to an election. The implications of this manoeuvre is that individuals, who otherwise have little connection with the dairy industry,

become associated with the society purely for electoral purposes.³²

A regional analysis of the personal background of the presidents of twenty sample societies was conducted to test this hypothesis. The analysis revealed the following pattern:

TABLE VI.7

Personal Background of Primary Society Presidents in Kerala. ³³

Region	Business	Professionals	Politician	Farmer	Total
Trivandrum	2	1	1	1	5
Ernakulam	--	2	2	1	5
Malappurum	1	--	--	4	5
Kozhikode	--	1	2	2	5
All	3	4	5	8	20

Source: Field Survey. June-July. 1991.

Only 40% of the Presidents gave their main occupation as farmers. In Trivandrum and Ernakulam, the two regions where OF has been in operation for over ten years, only two out of the ten presidents are full time farmers. In Malappurum, on the other hand, four out of five presidents are farmers.

³² Discussion with society presidents. Field Visit. June-July.1991.

³³ Admittedly, the sample is too small to make any generalisation about the personal backgrounds of the leaders who run the primary societies. But interviews with a cross section of individuals associated with the programme confirm that the pattern analyzed in this table is not too dissimilar to the situation existing all over Kerala.

A further point is that as the number of eligible voters is usually a small proportion of the total membership, resourceful individuals are able to manipulate electoral outcomes.³⁴ However, such practices tend to delegitimise institutions and this in turn alienates farmers.

To assess the degree of alienation we analyzed the extent to which farmers participate in decision making at the society level. Since the Annual General Body is the only forum in which ordinary members are able to take part in the decision-making process freely, participation rates in these bodies are significant. The results are furnished in Table VI.8.

Societies have been categorised into two: those directly started as APCOS and traditional societies converted into APCOS. Proponents of OF had always argued that participation rates would be higher in directly started APCOS, as they excluded non dairy farmers. However as Table VI.8 below indicates, participation rates even in societies such as A/1, A/2 and A/3, show a declining trend. Further, a closer analysis of the data with respect to the converted societies indicates that, participation rates go up immediately after its conversion to APCOS. However, over time the rate tends to decline, indicating that conversion

³⁴ We analyzed the electoral process in seventeen societies for which data was available. We found that during the period 1990-91, out of a total nominal membership of 8742 members, only 1997 members(21%) were eligible to vote. Society presidents are thus usually elected by an extremely small percentage of the total nominal membership.

to APCOS has not strengthened the representative nature of decision-making in the societies.

TABLE VI.8
Participation Rates in General Body Meetings of Sample Societies: Members Present as a Percentage of Total Membership: 1987-91.

	1987 %	1989 %	1991 %
CATEGORY A*			
Society A/1 (10/82)	16	11	13
Society A/2 (3/82)	14	No GB	10
Society A/3 (5/87)	NA	33	14
CATEGORY B*			
Society B/1 (1/91)	No GB	No GB	37
Society B/2 (4/89)	3	6	3
Society B/3 (9/88)	No GB	3	5
Society B/4 (12/82)	19	16	16
Society B/5 (11/82)	No GB	No GB	No GB
Society B/6 (10/89)	33	8	12
Society B/7 (11/88)	2	3	2
Society B/8 (11/87)	12	2	2
Society B/9 (4/87)	10	9	7
Society B/10 (4/87)	6	6	6
Society B/11 (4/87)	8	6	5
Society B/12 (4/87)	8	11	11

Note: Data relates to fifteen societies only.

* Society A= Societies directly started as APCOs; Society B= Societies converted to Apcos from traditional societies. Figures in brackets denote the month and year in which the society was started in the case of Category A societies and the conversion date in the case of Category B societies.

Source: Field Survey. June-July. 1991.

Participation trends can also be assessed by analysing the degree to which farmers are aware and identify with various OF institutions in Kerala. We found that only 69% of the respondents were able to identify their local dairy society president. However, when asked about the office bearers of the regional unions, 87% of respondents could not name a single member of the director board of the regional union. To test the familiarity of farmers with the functioning of the various OF structures, we asked the respondents to comment on the following statement: "The society/regional union leadership is honest in its dealings." Only 55% of the respondents stated that they found the leadership (President and directors) of the society always honest in its dealings. In respect of the leadership of the regional union 92% of the respondents recorded "don't know" answers.

These answers suggest that while a majority of farmers were familiar with the identity of the local leadership, a significant minority (nearly 45%) were either unfamiliar or did not fully approve of the society's functioning. In the case of the regional union, it appears that the vast majority of the farmers were either unfamiliar with the leadership and its functioning or were unwilling to answer the question. Intriguingly, the majority of the farmers appeared to make little distinction between OF institutions, which theoretically are owned and controlled by them, and a government department. Only 40% of

the respondents disagreed with the proposition that "Milma³⁵ is a co-operative only in name. Actually it is a government department", while 30% agreed with the statement and the remainder recorded "don't know" answers. In Trivandrum district, where the programme has been in operation for over ten years, and consequently where the identification with OF institutions should have been greater, 47% of the respondents identified the organisation as a government department.

The participation rates and the responses to key questions analyzed above, clearly indicate that a significant section of the farmers who supply milk to OF institutions in Kerala, have only a tenuous commitment to the organisation. This lack of commitment, obviously facilitates the State's task of controlling dairy co-operatives in the province.

Another significant factor that enabled the State to erode the autonomy of OF institutions in Kerala is the emergence of party politics in the dairy sector. In the early days of OF, elections to primary societies were relatively non-politicised.³⁶ Presidents were elected uncontested or the contest was on non-party lines; but there is increasing evidences that elections to dairy co-operatives are beginning to resemble set electoral battles

³⁵ "Milma" is the brand name of the milk that KCMMF markets. In course of time, the organisation has come to be popularly known as "milma".

³⁶ Discussion with society presidents. Field Visit. June-July 1991.

between opposing political parties. In recent years, both the CPM and the Congress party have come to regard the dairy sector as a potentially rich source for generating political capital. Consequently, the process of selecting candidates for both the primary society and the regional unions closely resembles the process used to identify potential candidates to the legislative assembly.

In the case of the Congress party, the panel for the Director Board of a primary society is decided by the Mandalam Committee; and in the case of the CPM, the local committee selects the panel. The selection process for the regional union board is a more elaborate affair. While selecting the panel for TRCMPU, the District Presidents of the Congress party, in the four districts falling under the jurisdiction of TRCMPU, together prepared a tentative list of potential candidates. While preparing the list, considerations such as caste, religion and region were taken into account. (The potential candidate's credentials as a successful dairy farmer or as a dairy expert were irrelevant to the selection process.) This list was then forwarded to the Kerala Pradesh Congress Committee (KPCC), the supreme decision-making authority of the Congress in Kerala. The KPCC initiated a series of discussions with various groups within the Congress. Once representation is given to the various groups, the final panel is adopted as the official panel of the Congress Party. Circulars are then issued calling upon all Congressmen in the societies to vote for the official panel of the party. The CPM

follows a similar procedure, though in its case, the selection process is usually finalised at the district level.

The above analysis clearly indicates that OF institutions in Kerala are dominated by professional politicians, who have perceived the potential of these institutions for generating political resources. Organisational resources are deployed in variety of ways to generate political capital.

Since the decision to start new primary societies is taken by the Union Board, the sanctioning of societies can be used to reward supporters and punish opponents. Societies, thus, would be started only in areas where the political complexion of the farmers is favourable to the party in control of the board.

Second, organisational resources are expended to reward key political supporters. To test this hypothesis, we made an analysis of the quantity of subsidized feed that was received by societies in which key supporters of the KCMMF's political leadership were in power. This was then matched with a list of randomly selected societies. The results are given in Table VI.9.

The table shows that the average ratio of feed received to milk despatched in the key societies is far higher than in the randomly selected societies. Thus, the key societies received on average 8.03 KG for every litre

of milk despatched to the dairy.³⁷ The ordinary societies on the other hand received on average, only 3.8 KG for every litre of milk despatched to the dairy. In other words, presidents of key societies are rewarded for their support by the generous supply of subsidized feed. Apart from feed, other incentives (which cannot be documented for obvious reasons), such as jobs for the dependents of key allies, are often used to ensure continued support.

TABLE VI.9

Comparative Analysis of Milk Despatched to Dairy and Feed Received in Key and Ordinary Societies: 1989.

Milk in Litres; Feed in Tonnes

Key Societies			Ordinary Societies		
Society	Milk	Feed	Society	Milk	Feed
Society 1	75,750	494	Society 1	72,052	624
Society 2	339,952	2400	Society 2	229,483	473
Society 3	95,818	1023	Society 3	39,441	174
Society 4	115,146	535	Society 4	102,730	489
Society 5	21,349	754	Society 5	39,134	80
Total	648,015	5206	Total	482,840	1840

The presidents of the key societies are all allies of the political leadership of KCMMF.

Source: Confidential Records of the KCMMF. 1991.

³⁷ The case of Society 5 is especially significant. This society has received on an average 35.32 KG for every litre of milk sent to the dairy. The president of the society is one of the most politically powerful individuals in TRCMU and is known to have powerful patrons in the Congress party. There were persistent complaints that this society was using its political clout with the KCMMF leadership to acquire more feed than it could sell to its members. This would suggest that the society was selling the subsidized feed in the open market to take advantage of the huge difference between open market prices and the price at which KCMMF was selling to its member societies.

Dairy co-operative are important to political parties, because they become the nucleus around which parties can build an organisational structure in the area. These structures prove invaluable for mobilising resources- both financial and personnel-, during general elections to the legislative assembly. A circular link is thus built up- political parties expend resources to capture dairy co-operatives, the resources of which are then deployed to generate further resources for the political parties. In the process, political conflicts outside the organisation become part of intra- organisation conflicts.

We argue that the import of partisan party politics into OF institutions in Kerala was a major factor in the State's attempt to assume control. The Congress party had exercised control over KCMMF since the inception of the organisation in the early eighties. In Chapter IV we had noted that the opportunities for upward mobility that the OF institutions offered, attracted a large number of politicians into the programme. The Left Democratic Front(LDF), was not as quick as the Congress party in realising the potential of the dairy sector. However, the formation of an LDF government in 1987, was an opportunity to break what the government regarded as a monopoly of the Congress party. First, the coercive powers vested with the Registrar of co-operatives were subtly used to ensure that societies were started in areas more sympathetic to the

LDF.³⁸ Second, the government began to exercise greater operational control over the organisation so as to ensure that organisational resources were not deployed to benefit the Congress party alone. The LDF government's own political compulsions, thus, dictated its treatment of OF institutions in Kerala in the late eighties.

Summary

In this chapter, we have attempted to analyze the extent to which OF had benefited the farmers of Kerala. Since dairying was of marginal importance to the average farmer in Kerala, it is extremely difficult to view the programme in isolation. However, the movements of relative prices were unfavourable to the farmers throughout the eighties. The cost of inputs such as paddy straw increased rapidly, while milk prices declined in real terms. Farmers generally perceived that the programme had had little impact in improving their income, and a number of studies confirmed the increasing unprofitability of the dairy sector in Kerala.³⁹

The proximate remedy to reverse the unprofitability of the dairy sector is to increase milk prices; but both the structure of the dairy markets in

³⁸ In Malabar especially, there were complaints that more societies were being registered in Communist strongholds. Discussion with society presidents. Field Visit. June-July. 1991.

³⁹ See :1) "Dairy Development in Quilon District: An Ex Post Evaluation Study". 1987. op cit. 2) George P.S and Nair K.N. op cit 1990 and 3) "Report of the Committee on Milk Pricing".1991. op cit.

Kerala and organisational weaknesses stood in the way of higher milk prices. Milk prices in Kerala were already among the highest in India and further increases would constrain the ability of KCMMF to participate in external markets (See Table 6.5). The single most significant factor standing in the way of higher milk prices in Kerala is the vulnerability of KCMMF to State pressure.

OF institutions had considerable autonomy in fixing procurement and sales purchases in the initial years of the programme. Up to the mid eighties, the government did not generally intervene in pricing and investment decisions. However, this autonomy was gradually eroded until by 1991, the State was in effect controlling pricing decisions. This loss of autonomy was a consequence of three factors: 1) conflicts between the various actors within the organisation enabled the government to exercise greater control. The dispute over the appointment of the Managing Director of ERCPMU led to the NDDB supporting the government in its efforts to discipline the leadership of ERCPMU. Similarly, the alienation of a number of co-operative leaders in Malabar enabled the government to divide the ranks of co-operative elites. 2) The NDDB was no longer able to act as a buffer between the government and OF institutions. Policy changes by the Government of India and the dependence of the NDDB on the Kerala government to collect overdue loan repayments diluted the ability of the NDDB to safeguard the autonomy of OF institutions. 3) Political rivalry within OF institutions and the perception

by the LDF government that the Congress party was deploying organisational resources to further its partisan aims, encouraged the government to assume greater operational control over the decision-making process. Since, as we saw in Chapter II, governments in Kerala generally promote consumer interests in the case of wage goods, the assumption of greater State control meant stagnant or declining procurement prices for milk.

Operation Flood as a Role Model

Operation Flood produced sub optimal results in Kerala. The programme, however, has been in operation in different parts of India for over two decades. Moreover, new programmes based on the same institutional framework have been launched to intervene in a range of commodity markets including fruits, vegetables, oilseeds and fish. In this chapter, we first assess the performance of OF at the all-India level. The Kerala Government's attempts to extend the institutional format of OF to the coconut and fisheries sectors are then examined.¹

SECTION I

Operation Flood in India.

In this section, we examine whether OF has succeeded in achieving its targets at an all-India level. Success or failure is evaluated in terms of three criteria: 1. Has the programme contributed to substantially increased milk production in the country?. 2. Has the programme been able to ensure higher remunerative prices for dairy

¹ In the eighties, two apex co-operative federations were set up by the Kerala government to intervene in the coconut and fisheries sectors. In 1984, the Kerala State Co-operative Federation for Fisheries Development (MATSYAFED) was created to promote development in the fisheries sector. The Kerala Kera Karshaka Shakarana Federation (KERAFFED) was set up in 1987 to implement an integrated coconut development project. Both projects were based on the OF model.

farmers? and 3. Are OF institutions financially viable organisations capable of self-sustained growth?.

In Table VII.1, we summarise the progress of OF II and the proposed targets under OF III.

TABLE VII.1
Achievements and Targets of OF II and OF III in India:1980-95

	1980-81	1986-87	1990-91	1994-95 (Proposed)
No:of states	12	23	23	23
No: of unions	39	170	174	190
No:of APCOS	13,270	49,077	63,121	67,000
Members	1,747,400	5,096,919	7,477,128	NA
Milk Procured MKG/day*	2.56	7.85	9.70	13.30

* MKG= Million Kilograms

Source: Records of the NDDB. Anand. 1991 and Staff Appraisal Report World Bank.1987.IBRD.Washington.

The above table shows that the expansion of the programme during the eighties has been massive and rapid. The entire country is now effectively under the programme. Even in areas which are not officially under the programme, such as Malabar, the APCO model has been adopted as the only model of dairy development.

1) OF and Milk Production in India.

Paucity of reliable data makes it difficult to quantify the contribution made by OF to the growth of milk production in India.² However, an attempt is made below to examine whether there is any connection between growth of milk production and OF.

Estimates indicate that while total production increased by 10.6% from 20.35 million tonnes (MT) in 1961 to 22.50 in 1972 when OF was launched, it increased by 52.4% to 34.30 MT by 1981-82 and again by 50% to 51.40 MT by 1989-90.³ These growth trends have been cited by admirers of the programme as proof that OF has contributed significantly to the enhancement of milk production in the country. The EEC's evaluation team, thus, came to the

² A number of observers have commented on the difficulties of analysing milk production trends. The Quinquennial livestock census provides data on productivity only from the late sixties. Further, estimates of milk production are based on rough approximations rather than on statistical surveys.

In 1975-76, an attempt was made by the Government of India to rectify the statistical lacunae through a comprehensive annual integrated milk production survey. But, only 14 states participated in the survey. Consequently, the data on milk production is based partly on field surveys and partly on the basis of some inspired guess work.

See 1. Nair. K.N. 1985. op cit. 2. "Report of the Evaluation Committee on OF II". 1985. op cit and 3. Parthasarathy G: "White Revolution, Dairy Co-operatives and Weaker Sections". Economic and Political Weekly. Review of Agriculture. Vol: XXVI. No: 52. 1991.

³ The figures for 1972 are taken from Nair K.N (1985) op cit; those relating to 1981-82 and 1989-90 are obtained from two sources:

1. "Reports of the Sub committee of the Technical Committee of Direction for Improvement of Animal Husbandry and Dairying Statistics". Department of Animal Husbandry, Ministry of Agriculture. Government of India. Various Issues.

2. "Economic Survey". Ministry of Finance. Government of India. Various Issues.

conclusion that" Operation Flood's activities have substantially increased the supply of good quality milk "in India.⁴

However, a disaggregated analysis reveals that OF had a differential impact in the various regions of the country. Table VII.2 gives a comparative analysis of milk production and procurement trends in India.

TABLE VII.2

Region Wise Production and Procurement Trends in India: 1981-82 & 1989-90.

Region	1981-82				1989-90			
	Prod:*	%	Proc:*	%	Prod:	%	Proc:	%
	000s MT		000s KG		000s MT		000s KG	
North*	16,129	47.4	413.9	14.9	22,484	44.0	1340.0	13.7
East*	4,761	14.0	31.5	1.1	7,092	13.9	217.1	2.2
West*	6,527	19.2	1684.9	60.5	11,117	21.8	5124.3	52.2
South*	6,585	19.4	654.2	23.5	10,331	20.3	3132.4	31.9
All	34,002	100	2784.4	100	51,024	100	9813.8	100

Note: * Prod= Total milk produced in India.

* Proc= Milk procured by OF institutions.

* North = Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan and Uttar Pradesh.

* East = Assam, Bihar, Manipur, Meghalaya, Nagaland, Orissa, Sikkim, Tripura and West Bengal.

* West = Gujarat, Maharashtra and Madhya Pradesh.

* South = Andhra Pradesh, Karnataka, Kerala and Tamilnadu
 Source: Production Figures :1. Reports of the sub committee of the Technical Committee of Direction for Improvement of Animal Husbandry and Dairying Statistics. Various Issues. op cit.2. Economic Survey. Ministry of Finance. Various Issues. op cit. Procurement Figures: Records of NDDB.

⁴ See the European Economic Commission's report to the EEC. Quoted in Bardhan P.C. No Date. op cit.

The above Table indicates that the impact of the programme has been regionally concentrated. The West and the South account for 84% of the milk procured under the programme at both time points. The North, despite accounting for 44% of the total milk produced in 1989-90, accounts for only 14% of the milk procured under the OF programme. It can be argued that the lower procurement in the North and East is due to the lower rate of commercialisation of the dairy economy in these regions. A recent survey indicated that while the marketable surplus is as high as 75% in the South, it is only 54% in the North.⁵ The lower marketable surplus would naturally be reflected in lower procurement figures.

The lower rate of commercialisation in the dairy economy alone, cannot explain the lower procurement figures in the North. An equally important factor is lower investment in the North and East. Analysis of funds disbursed under OF shows that of the Rs 5.325 billion disbursed under the various programmes, about 3.421 billion (64%) went to the South and the West, while only Rs 1.904 billion (36%) went to the North and the East.⁶ The higher procurement figures in the South and West may be a reflection of the higher investment by OF in these regions. These figures, thus, indicate that while OF has contributed

⁵ See "Base Line Survey of Operation Flood Areas: 1988-89". 1991. op cit.

⁶ Confidential records of NDDB. Anand.1991.

to increased milk production in the country, its impact has been regionally specific.

This is confirmed by a number of regional studies. Alderman found that the project has contributed substantially to milk production in the co-operative villages of Karnataka.⁷ Mergor and Slade reached a similar conclusion in respect of Madhya Pradesh.⁸ A.C Dhas, while specifically rebutting the claim to increased milk production in Tamilnadu, nevertheless admits that the technical inputs provided under the programme and the increased marketing opportunities created by the dairy co-operatives, gave a stimulus to milk production.⁹ These studies indicate that in some regions in the country, OF has given a stimulus to the dairy economy.

II Operation Flood and Milk Prices

The seasonality of milk production and its perishability mean that in the absence of an organised marketing system, prices can and do fluctuate violently. Farmers often receive substantially lower prices from intermediaries during the flush season. The Jha committee found that prices declined by 40 to 50% during the flush

⁷See: Alderman H.: "Co-operative Dairy Development in Karnataka-India: An Assessment". Research Report No:64. International Food Policy Research Institute. Washington. D.C. 1987.

⁸ See: Mergos G and Slade R.: "Dairy Development and Milk Co-operatives: The Effects of a Dairy Project in India". Washington D.C: World Bank Discussion Paper No: 15. 1986.

⁹ Dhas A.C. 1990. op cit.

season when the farmers had no marketing outlets other than traders.¹⁰ OF is designed to rectify these market imperfections while at the same time providing the farmer with a remunerative price. In this section, we examine the extent to which OF has been able to achieve this objective.

The determination of milk prices is a function of supply and demand. Supply factors such as the level of the production technology employed (for example, the percentage of high yielding cross-bred cattle in the milch herd), availability of feed and the existence of marketing outlets, significantly influence price behaviour. Demand factors such as the state of the economy and the movement of relative prices in the case of milk substitutes, have a bearing on the prices that farmers can command in the market. Since these factors differ enormously for a decentralised production system such as dairying in India, aggregate data on milk prices have to be used with a great deal of caution. Bearing these reservations in mind, we now examine how dairy farmers have fared in respect of milk prices during the OF period.

The Jha Committee argues that Maharashtra, Gujarat and the southern states are able to procure greater quantities of milk because they pay their producers well, while the " dairies in the north... cannot meet consumer demands without getting supplies from outside because...

¹⁰ "Report of the Evaluation Committee on OF II". 1985. op cit.

they tend to pay low prices to producers".¹¹ There is some merit in the argument that lower prices in the north lead to lower supplies. However, a great deal of caution has to be exercised when we make straightforward comparisons on prices across provinces. The Jha committee's argument is contradicted by data supplied by the committee itself. In the appendix to the report, the Committee furnishes the average prices received by the farmers in various regions. Information pertaining to the relevant regions is reproduced below.

TABLE VII.3

Average Producer Price in Various Regions in India

Period :1984-85. Rs/ litre 7% fat, 9.5% SNF*.

South		North		West		East	
AP	2.99	UP	3.56	MR	4.10	Assam	2.59
TN	2.75	Punjab	3.19	Gujarat	3.57	Orissa	2.49
KTK	2.70	Haryana	3.32	MP	3.18	West Bengal	2.59
		Rajasthan	2.31				

* SNF= Solid Non Fat

AP=Andhra Pradesh; TN=Tamilnadu; KTK=Karnataka; UP=Uttar Pradesh; MR=Maharashtra; MP=Madhya Pradesh.

Source: "Report of the Evaluation Committee on Operation Flood". 1985. op cit.

¹¹ ibid.P: 39.

Apart from Maharashtra, none of the other provinces in the West, paid very high prices. Significantly, all the Northern provinces, except Rajasthan, paid far higher prices than the southern provinces.

The above analysis by itself does not invalidate the claim that prices and procurement are positively correlated. It does however, point to the dangers involved in making generalisations about the country as a whole. Input prices and demand vary vastly across regions. Therefore, a simple comparison between milk prices prevailing in various regions will not further our understanding of the economics of milk production and marketing in India.

A more rewarding approach would be to first compare the prices paid by different market agents within a region and then go on to analyze the cost of production and prices received by farmers in that region. A tentative attempt in this direction is made below:

TABLE VII.4

Prices Paid by Selected Market Agents

(Period: April-June 1988 and December-February 1989.)

Rs/litre

Region	Co-operatives	Household in village*	Others in village*	Urban	All
Bihar	4.42	4.89	4.60	4.82	4.51
Punjab	3.89	4.43	3.46	4.16	3.83
W. UP*	3.97	4.00	4.21	3.00	4.12
Gujarat	4.60	4.58	4.71	5.50	NA
Coastal AP*	3.84	3.98	3.88	5.00	3.89
S.I. Karnataka*	3.07	3.70	3.33	---	3.15
Kerala	3.55	4.03	4.13	4.60	3.95
Tamilnadu	3.01	3.45	3.33	3.61	3.12
All India	3.72	4.11	4.10	4.39	3.85

* Households = Prices paid by consuming households directly to farmers. * Others = Traders within the village.

W. UP*= Western Uttar Pradesh; AP* =Andhra Pradesh; S.I Karnataka*= South Interior Karnataka.

Source: "Base Line Survey of Operation Flood Areas- 1988-89". 1991. op cit.

The above table indicates that in all the states, except Gujarat and Punjab, the average price paid by the co-operative is less than that paid by the other agencies. The difference between the prices paid by the co-operative and the traders is especially significant. The latter would benefit most by the relatively lower price paid by the co-operatives.

We now examine whether the average prices received by dairy farmers cover their cost of production. We give below a region wise analysis of net revenue earned from dairying.

TABLE VII.5

Net Revenue From Dairying in Various Regions

(Period: Same as for Table VII.4) Rs/per litre

Zone	Paid out cost		Price Received		Net Revenue per household	
East	1.25	1.69	4.15	4.12	12.60	8.74
South	1.33	1.93	3.30	3.55	7.90	5.50
North	1.31	1.16	3.96	4.06	7.82	12.64
West	1.87	1.90	4.46	4.46	6.45	9.54
All	1.45	1.67	3.85	4.02	7.53	8.66

Source : "Base Line survey of Operation Flood Areas:1988-89". 1991. op cit.

The above data indicate that the net return to dairying ranges from Rs 5.50 per household per day in the south zone to Rs 12.64 in the east zone. This may appear to prove the assertion that the economics of dairying is positive in most regions of the country. But the problem with this data is that it does not include a number of variables while computing production costs. Not all imputed costs, including depreciation, interest on working capital and family labour are included in the above estimate. Since

for most small and marginal farmers, the acquisition and maintenance of productive assets often involve the outlay of considerable time and resources, estimates which do not take them into consideration will present a distorted picture. If these costs are added to the production costs, the net return to the household will be considerably lower than the estimates provided above.¹²

The foregoing discussion indicates that in all the regions, the prices paid by the co-operatives are substantially lower than those paid by other market agents. Further, when imputed costs are added to production costs, the economics of dairying do not appear very positive. These conclusions are, however, still based on broad

¹² The CDS, Trivandrum, made an analysis of the feed intake of milch stock belonging to different categories of farmers. The average feed intake of a cross-bred cow in milk, owned by a farmer with less than 10 cents of land was seen to be as follows:

KG/per day/animal

Cultivated grass :	0.00
Collected grass :	12.60
Purchased grass :	0.35
Crop residue :	0.29
Paddy straw :	3.52
Concentrates :	2.12
Compounded feed :	1.49
Minerals :	0.004

The study observed that owing to the absence of a market for items such as cultivated and collected grass and crop residue, these items were left out, while making the cost of production calculations. Since these items constitute a significant percentage of the feed intake, their removal from the valuation process will make a major difference in determining whether the economics of milk production are positive or negative. If in addition, other imputed costs are also not added, it is clear that estimates which take into account only out of pocket expenses will not present a true picture of the viability of dairying. See George P S and Nair K N. 1990. op cit.

aggregate data, but appear to be confirmed by three micro-level studies conducted by the NDDB in four different regions in India.

Following the decline in OF procurement between 1989-90 and 1990-91, the NDDB undertook a series of region-wise "quick" evaluation studies to pinpoint the causes of the decline. In the south, Tamilnadu and Karnataka were studied. The study team found that milk procurement by co-operatives had dropped sharply in both states, when compared to the corresponding periods of the previous year.¹³ The diversion of milk to private traders was identified as the main reason for the poor procurement of the co-operative sector. In the district of Salem for instance, private trades reported that their procurement increased by over 50%.¹⁴

The proximate reason for the decline in procurement, was the inability of co-operatives to maintain milk prices at par with production costs. Milk procurement prices had remained stagnant in Tamilnadu at Rs 2.80 per KG of cow milk since 1988 and in Mysore (Karnataka) at Rs 3.80 since February 1989. The study team concluded that the inability of co-operatives to increase milk prices in the face of rising input costs, increased the alienation of farmers from the sector.¹⁵

¹³ "A Rapid Survey of Declining Milk Production in the South". 1991. op cit.

¹⁴ ibid.

¹⁵ ibid.

The second study- " A Rapid Study of Milk Procurement in Bulandshar Union"-, found that in the northern region, milk procurement by the co-operative sector had declined by about 12% in the 1990 October-December period, as compared to the corresponding period in the previous year.¹⁶ The most significant factor appears to have been diversion from co-operative to the private trade. The study team found that while the Bulandshar Union's total procurement dropped by 70% in 1990-91, procurement by private traders had doubled. In a sample survey conducted by the team, more than half of the farmers and over 90% of the "opinion leaders" questioned, stated that the price offered by the society was less than that offered by private traders.¹⁷ So, during the 1990 flush, while the co-operatives were offering Rs 4.50 per litre, the traders were offering RS 6.00. The study team concluded that " the single most important reason to explain the fall in procurement is the price factor".¹⁸

In the state of Madhya Pradesh, four milk unions were selected for study - Bhopal, Gwalior, Indore and Ujjain. The decline in the procurement of all these unions is attributed to the farmer's dissatisfaction with the co-operatives :"Irregular payment by the co-operatives and inadequate pricing to cover increased production costs have

¹⁶ "A Rapid Study of Milk Procurement in Bulandshar Union". 1991. op cit.

¹⁷ ibid.

¹⁸ ibid

made the producer shift away from the co-operative to the private sector for selling milk".¹⁹ Payments were delayed for nearly 100 days in Indore, 70 days in Ujjain and 50 days in Gwalior and Bhopal. Further, while the price of cow milk increased by only 6% between 1989 and 1991, the cost of ground nut oil cake is reported to have risen by 70%.²⁰ Stagnant prices in the face of escalating production costs, coupled with irregular payments contributed to the disenchantment with the co-operative system.

The aggregate data at the national level and the micro level field studies, indicate that the prices offered by the co-operatives do not provide an adequate return to the farmer. This is not to deny the considerable benefits farmers derive from the presence of the co-operatives in the market. Their very existence provides an alternative and thereby enhances the bargaining power of the farmer in the market. APCOS, however, were not designed for this limited role. They were expected to be the price setters, offering the most competitive prices for milk.²¹ In this respect, OF seems to have had only limited success.

Financial Viability of OF institutions

The overall objective of OF is the creation of an institutional framework within which millions of dairy

¹⁹ "A Quick Survey of Declining Milk Procurement in Madhya Pradesh". 1991. op cit.

²⁰ ibid.

²¹ Interview with V.S Hebber. Senior Executive, NDDB, Bangalore. 18/4/1991.

farmers can build a viable, self sustaining dairy industry. It is therefore axiomatic that the prosperity of the farmers would be critically dependent on the viability of these institutions.

The 1987 World Bank Staff Appraisal Report, indicates that nearly 50% of the OF institutions in the country were earning a profit, while the other 50% were either earning cash profits only or were making losses.²² Our discussions with officials of the NDDB reveal that around two thirds of the unions were reportedly making losses during 1989-90.²³ The two sets of figures point to the difficulty in collecting precise data about the profitability of OF institutions in India. The primary difficulty appears to be the lack of uniformity in accounting practices. Some institutions report their operating figures without taking depreciation and interest on capital, while others include them. We observed markedly different accounting practices even within a federation.²⁴

Analysis of the accumulated losses of OF institutions indicates that in 1989-90, of the 139 unions (out of a total of 174), for which information is

²² Cash profits were calculated by leaving out depreciation and a portion of the interest (ie "interest accrued but not due") See: Staff Appraisal Report. World Bank. 1987. op cit.

²³ Discussion with NDDB officials at Bangalore. 18/4/91.

²⁴ In Kerala, the TRCMU and the ERCPMU until recently used different accounting practices, with the result that ERCPMU's performance was enhanced considerably more than the facts warranted. One year, the NDDB sent a letter of commendation to ERCPMU for its excellent financial results, while it was actually incurring losses.

available, 119 unions (86%) had accumulated losses of varying degrees.²⁵ The accumulated losses of all the unions and federations in India totalled Rs 2107.80 million in 1989-90.²⁶

The financial health of many OF institutions is very suspect. This financial fragility adversely affects the farmers in a number of ways. First, as we have observed earlier in the case of the four unions in Madhya Pradesh, milk value payments are held up for several weeks or even months. This imposes great hardship on farmers who are often dependent on immediate payment for the purchase of inputs and for meeting their daily consumption needs.

Second, faced with mounting losses, co-operatives often attempt to reduce losses by keeping procurement prices stagnant. Third, the production of cattle feed and other inputs are hampered due to the lack of working capital. Dislocations in input supplies disturb the feeding pattern of the milch stock contributing to their lower productivity. Institutional failure, thus, imposes considerable costs on the farmers.

The indifferent financial performance of OF institutions can be attributed to a variety of factors. First, it is often argued that the losses are due to inadequate throughput. The Jha committee estimated that the average capacity utilisation of rural milk processing

²⁵ The losses ranged from Rs 34,000 in Moradabad Union (Uttar Pradesh) to Rs 118.50 million in Indore Union (Madhya Pradesh). Confidential records furnished by NDDB, Anand. 1991.

²⁶ ibid.

plants in India was 62% in 1983-84. However, the dairies belonging to 14 federations had a capacity utilisation less than the national average, one as low as 5%. ²⁷ While this argument has some merit in explaining the losses of federations with low capacity utilisation, it does not explain how federations such as Tamilnadu with 90% or Karnataka with 76% capacity utilisation continue to make huge losses annually. These losses can, in part be explained by the use of organisational resources for political ends (See below).

Second, a major factor seldom highlighted, is the capital intensity of many of the projects under OF, which makes it difficult for federations to service their debts.²⁸ Further, Project reports are based on financial criteria which assume that organisational policy would be so oriented as to maximise profitability. However, our discussion in previous chapters indicates that the interest group process within OF institutions ensures that policies are seldom fashioned to optimise financial viability. We

²⁷ "Report of the Evaluation Committee on OF II". 1985. *op cit*

²⁸ The success of "Amul" owes not a little to the fact that its projects in the early years, were largely financed on very favourable terms. Between 1949 and 1956, the Bombay government gave Amul Rs 2.4 million in grants and 0.29 million in loans. Thus, only 12% of the funds received from the Bombay government during this period had to be paid back. See Singh S P and Kelly P L, quoted in Patel S. (1990). *op cit.*

As against this financing pattern, the current lending conditionalities of OF, prescribe that the bulk of the resources will be furnished on a 70:30 ratio- 70% loans and 30% grants. The difference in financing pattern would make a significant difference to the success or failure of an institution in its very early phase.

have, for instance, referred to the policy of pricing cattle feed below its production cost. Such a policy, while optimising the political interests of the co-operative elites, impose considerable financial burdens on the organisation. Similar is the situation in many dairy plants. These capital intensive plants had been set up on the assumption that they would require limited manpower. However these dairies had to absorb all the excess staff of the former State-owned plants. In the process, many of the financial assumptions on which these plants were built were undermined. OF institutions, having borrowed heavily to finance their construction, now find it difficult even to service their debts.

Third, a significant portion of the accumulated losses of OF institutions are inherited. We have no precise information as to the extent of these prior losses at the All India level. But judging from the Kerala experience, these could be considerable. In Kerala, the accumulated losses of the 5 dairies and one cattle feed plant operated directly by the government came to Rs 3.30 million when the federation took them over.²⁹ In addition, the federation was forced to take over insolvent unions such as the Kottayam dairy. Further, as we indicated in Chapter IV, all these units were heavily overstaffed. Consequently, the same pattern of expenditure which contributed to the accumulated losses was carried over to the new institution. The Jha committee reports that the experience of other

²⁹ Confidential records of KCMMF. 1991.

federations was similar. It remarks :" There were also instances where excess staff and accumulated financial liabilities of the erstwhile state owned corporations had been passed on to the newly constituted state co-operative federations resulting in severe handicaps to them".³⁰

Government policy also has a negative impact on the finances of most federations. Two aspects of this policy can be distinguished. First, state governments in India are reluctant to raise consumer prices. Attempts are often made to keep both producer and consumer prices down. However, occasionally, when farmer agitations threaten to impose unacceptable political costs, organisational resources are diverted to reconcile the demands of opposing interest groups. In Tamilnadu, for instance, the farmers launched a major agitation in 1988 for higher milk prices. The government then agreed to higher procurement prices. However, as an equally large price increase was not countenanced in consumer prices, the Tamilnadu dairy federation suffered a loss of 10 to 15 paise on every litre of milk it marketed.³¹

OF institutions are often compelled by state governments to extend dairy development activities into

³⁰ "Report of the Evaluation Committee on Operation Flood II". 1985. op cit. P: 21.

³¹ The General Manager of "Avin", the Tamilnadu Federation, informed the author that in April 1991, milk purchased at RS 4.20 was sold at only RS 5.00 per litre, leaving very little to meet procurement, processing and marketing costs. He further claimed that due to the government's interference in pricing policy, the federation has lost about Rs 100 million during the last several years.

Interview with the General Manager, "Avin". Madras. 3/4/91.

marginal regions, which cannot sustain a viable dairy industry. In Kerala for example, co-operatives have been started in a number of coastal panchayats where there is little scope for keeping cattle.³² The costs of this extension activity has to be borne by the federation or by the farmer through lower prices. In the former case, resources earmarked for trading or investment are diverted to finance activities that properly belong to the government.³³

Our analysis indicates that of the three criteria - growth in milk production, remunerative price to farmers

³² Coastal areas have several disadvantages in sustaining a profitable dairy industry. Human population densities are high and the cropping pattern is often not biased in favour of cattle friendly crops. The profile of two villages studied by a joint Indo-Swiss team is revealing:

Village	Kuttimakool Village (Cannanore District)	Pattanchery (Palghat District)
Topography	coastal	midland
Population Density	50/hectare	5/hectare
Core-Periphery status:	semi-urban	rural
Predominant Cropping Pattern	tapioca,banana, vegetables	Paddy

The study team found that paddy straw had to be imported in large quantities into Kuttimakool, as little paddy was produced locally. Paddy straw prices reflected its limited availability in the village. A bundle of straw (1.5 kg) cost Rs 4.50 in Kuttimakool as against only Re 1.00 in Pattanchery.

See :Gincy G et al: " Farm-Level Case Study." The GUIZ (Department of Geography, Zurich University) and the Kerala Livestock Development Board. Zurich and Trivandrum. 1988.

³³ The Jha Committee recognised the necessity for governments to create conditions in which OF institutions can function effectively. It argues that it is not the role of the federation to conduct extension activities. That is the responsibility of the government. See: "Report of the Evaluation Committee on Operation Flood II". 1985. op cit.

and financial viability-, only in milk production has the programme produced positive benefits. The factors discussed in Chapter I -the paucity of feed resources, the distorting influence of a capital intensive model of dairy development and the inherent difficulties of replicating the Anand model in vastly diverse regions- would, in varying degrees, affect the performance of the programme. But they are incomplete explanations, in as much as they focus entirely on the role of the NDDB and ignore the very visible presence of the State in implementing the programme.

The role of the State is crucial to the outcome of the programme. The NDDB, though it visualised OF and planned its operational details, nevertheless has no effective mechanism to translate these plans into action programmes. A smaller and more phased - out project could have been implemented by the NDDB alone, by gradually building up its own agencies in the concerned regions. The ambitious targets and the tight time frame meant that NDDB was forced to depend on the various government departments to launch the programme and even to monitor its implementation. This meant that governments now had the opportunity to set the agenda for the programme and exploit the new opportunities offered by it.

From the very beginning there were conflicts between the various state governments and the NDDB over the autonomy of the proposed OF institutions in such areas as

pricing, staffing and investment decisions.³⁴ The Jha committee reported that state governments were generally not willing to surrender their authority over what they regarded as their legitimate area of interest. They finally agreed to the programme because of the large quantities of resources promised by the NDDB.³⁵

The stage was thus set from the very beginning for a confrontation between the state governments and the NDDB. The nature of the intervention, top-down with quantitative targets, meant that government departments had an increasing role in the implementation of OF. In many states, dairy corporations were set up to organise the Anand pattern co-operatives. These corporations were in theory supposed to organise the co-operative institutions and then gracefully fade away. It did not happen quite that way. The names of course changed. In Kerala, the Kerala Livestock Development and Milk Marketing Board became the Kerala Co-operative Milk Marketing Federation; the Karnataka Dairy Development Corporation, overnight became the Karnataka Co-operative Milk Producer's Federation and

³⁴ ibid. Conflicts over policy delayed the programme considerably. Though OF II was scheduled to begin in 1978 and end in 1985, negotiations went on till 1984 in the case of some governments.

³⁵ Many states benefited hugely from the programme. During the period 1981-1990, Andhra Pradesh, for instance, received annually over Rs 70 million from the OF programme as compared to the Rs 10 million that government spent directly in 1978-79 on dairy development. Tamilnadu received over Rs 47 million annually, compared to the Rs 5.54 that the government spent in 1978-79. These examples could be multiplied.

Source: Data collected from the Dairy Division, Ministry of Agriculture, Government of India and the NDDB.

the Rajasthan State Dairy Development Corporation, became the Rajasthan Co-operative Federation. The change in name did not mean that the organisation had changed in any meaningful way. The staff were the same, the Chief Executives continued to be civil servants and the Chairman is invariably a professional politician nominated by the government.³⁶

Government priorities thus came to dominate the agenda of the newly formed OF institutions. These priorities include the maintenance of urban supplies at below market prices and the use of organisational resources for furthering the political interests of State elites. There is sufficient evidence from all over India to indicate that dairy plants are run primarily to meet consumer demand and only secondly as an instrument for increasing rural incomes. The National Commission on Agriculture found that the fluid milk plants run by the public sector are "to a great extent consumer oriented" and are not in a position to pay milk producers market prices.³⁷

³⁶ Currently, only the federations of Kerala, Gujarat, Madhya Pradesh and Punjab have elected Chairmen. All the other 18 federations are headed by Chairmen nominated by the government. A few years ago, the minister in charge of dairy development in Tamilnadu was the Chairman of the Tamilnadu federation for a short period. It is also significant to note that the Chief Executives of 12 federations are IAS officers. The combination of inherited staff, IAS Chief Executive and nominated Chairman, makes the typical milk federation in India, a public sector corporation rather than a co-operative.

³⁷ See: "The Report of the National Commission on Agriculture". 1976. op cit.

Data from Karnataka, Tamilnadu and elsewhere indicate that the policies of the new federations are still oriented towards the urban consumer rather than the rural producer. In Karnataka, despite assurances to the World Bank that it would not dictate the price of milk, the state government is yet to give the federation the power to set producer and consumer prices. Similarly, in Tamilnadu, the federation has to gain the prior permission of the state government before it can raise prices³⁸. The situation is not dissimilar in other states. The result of these policies is, as we have seen in the previous section, stagnant producer prices and increasing disillusionment with the co-operative sector.

In the absence of detailed institution-wise information, the use of organisational resources for aggregating political interests is difficult to establish. However, our analysis of the situation in Kerala and the limited information from Karnataka and Tamilnadu indicate that a similar pattern could be prevalent in other states leading to similar outcomes.³⁹

The programme's sub optimal results, therefore, cannot be attributed solely to the mistakes of NDDB in

³⁸ Discussion with officials of the NDDB and the Tamilnadu dairy federation. Also see Mascarenhas R C. 1988. op cit.

³⁹ Mascarenhas reports that there is intense competition between the Janatha party and the Congress party in Karnataka over the elections to the various OF institutions, beginning from the primary co-operative. Such competition implies that political leaders are well aware of the potential of these institutions and are willing to compete so as to get control over them. See: Mascarenhas R C. 1988. op cit.

designing the project. True, design flaws such as underestimation of the difficulties in replicating Anand, over-ambition in respect of its coverage and the pace of implementation are contributory factors. But that said, we must admit that the role of the various provincial governments have been extremely questionable. They have emasculated the autonomy of OF institutions at birth, converting them instead into instruments of State policy.⁴⁰ In the process, a programme which was envisaged as mechanism for empowering dairy farmers, instead became a conduit for the extraction of resources.

The veracity of these observations can be further confirmed by an analysis of the policies initiated by the State to extend the institutional format of OF to other agricultural commodities.

Operation Flood As A Role Model

"Operation Flood", observes the World Bank " is now considered the main instrument for future national dairy development and a lead model for co-operative based initiatives in other rural sub sectors".⁴¹ The proof of

⁴⁰ The Jha committee found that while the governments of some provinces extended assistance to the programme, there were conflicts between the governments and the OF institutions on a number of issues. Governments were reluctant to transfer government owned facilities to the co-operatives and were unwilling to delegate the necessary autonomy in pricing, staffing and investment decisions. Further, they were saddled with the accumulated losses and excess staff of the erstwhile government owned dairy corporations. See: " Report of the Evaluation Committee on Operation Flood II". 1985. op cit.

⁴¹ Staff Appraisal Report. World Bank. 1987. op cit. P:11.

this observation is the extension of the OF strategy to the marketing of a number of other products. The NDDB is directly involved in the marketing of oil seeds and fruits, while state federations have been set up to market oil seeds, fruits and fish. The high profile of OF, the relatively easy access to multilateral financing institutions and the large volumes of finance available makes the OF model extremely attractive to policy makers.⁴² In Kerala, during the eighties, programmes based on the OF model were launched to promote the development of two commodities- coconuts and fish. In this section we briefly examine the nature of these programmes. ⁴³

⁴² Even social scientists have been starry eyed about the possibility of extending the OF strategy to other agricultural products. Thus, Achaya and Huria writes " Milk is only a media like any other agricultural commodity; but it has been the means of revealing a basic policy for all agricultural development in the country through single commodity co-operatives. First milk, then oil seeds, fruits and vegetable, forestry, fisheries, pulses, sugar cane. What next?. The co-operatives would be linked with a new market concept that would revolutionise marketing. There would be no exploitation by middlemen----- For the rural poor it will be a dream come true". Achaya K.T and Huria V.K: "Rural Poverty and Operation Flood". Economic and Political Weekly. Vol:XXI. No:37. 1986.

⁴³ These projects were not financed by the NDDB, but by the National Co-operative Development Corporation.(NCDC). But the thrust of the basic strategy is closely modeled on Operation Flood.

The Government of Kerala had in fact approached the NDDB with a project for financing an integrated coconut development project. But the NDDB offered to finance only a pilot project. As this was not acceptable, the government approached the NCDC, who agreed to finance the project in association with the EEC.

Coconuts

Coconut, which covers the largest cultivated area in Kerala, is vital to the economy of the state.⁴⁴ Nearly 3 million small and marginal farmers are dependent on the crop.⁴⁵ Further, more than 380,000 workers are employed in processing coir fibre, a by-product of the crop.⁴⁶ The Kerala Kera Karshaka Shakarana Federation (KERADEF) was set up in 1987 as an apex co-operative organisation to implement an integrated coconut development project. The genesis of the project is traced by programme planners to the crisis of the early eighties, when the prices of coconuts fluctuated violently.⁴⁷ The absence of a procurement, processing and marketing system was identified as the major factor responsible. It was further argued that earlier market interventions by the government were too limited to have had any impact. Therefore, the new project visualised the creation of a coconut growers' federation which would coordinate all the developmental

⁴⁴ With more than 875,000 hectares under coconuts, the crop covers around 32% of the area cultivated in Kerala. "Economic Review". 1990. op cit.

⁴⁵ "Draft Project Report". KERADEF. 1985.

⁴⁶ "Economic Review". 1990. op cit.

⁴⁷ The cost of 100 nuts which was Rs 130.23 in 1981, went down to Rs 119.28 in 1982, rose to Rs 315.06 in 1984, before declining again to Rs 195.40 in 1985. Confidential Records of KERADEF.

Officials argue that uncertainty over prices led farmers to under invest in their farms, with resultant loss of productivity.

activities and play a direct role in processing copra and marketing the oil.⁴⁸

The project aims to cover all the coconut growers in Kerala numbering around 2.9 million, by organising them into some 900 co-operatives. These co-operatives are expected to purchase all the coconut/ copra offered by the farmers and forward the same to the integrated processing units of the federation.⁴⁹ The project plans to build enough processing capacity to ensure that it is able to procure at least 50% of the total copra produced in the state. The project is estimated to cost about Rs 934.00 million.⁵⁰ Of this, 76% will be provided by the EEC and the balance by the NCDC and the Government of Kerala.⁵¹

Currently, the project is in its very early phase. Therefore, no definite conclusion can be reached about its future viability. The overall design of the project and the history of similar interventions in the past, allow us to offer some tentative observations.

The first question is over the sheer scale of the project. KERAFED, eventually aims to have enough capacity

⁴⁸ See "Report of the Appraisal Mission on Integrated Coconut Development Project". College of Agriculture Banking, Reserve Bank of India. No date. Page:63.

⁴⁹ "Draft Project Report". KERAFED. 1985.

⁵⁰ ibid. The project was originally estimated to cost 58.6 million Ecu. The depreciation of the Rupee has pushed up the cost in Rupee terms.

⁵¹ The EEC's role was limited to the grant of 44.20 million Ecu, partly as commodity aid and the balance as cash, to the Government of India. The latter would transfer the money to the National Cooperative Development Corporation, who will finance the project. Confidential Records of KERAFED. 1991.

to process about 180,000 tonnes of copra annually.⁵² This is more than half the total quantity of approximately 350,000 tonnes of copra produced in the state.⁵³ The federation itself estimates that already, there exists an installed processing capacity of 146,000 tonnes. This would mean that with the new capacity being created by the federation, total processing capacity in the province will be almost equal to the total production of copra in Kerala.⁵⁴ Currently more than 50 % of the production is exported to markets outside the province, mainly to Bombay.⁵⁵ There is little evidence to suggest that KERAFED will be able to procure, in any significant quantity, the copra that is currently being exported outside Kerala. Consequently, gross under-utilisation of capacity is a very real possibility. Further, as the expeller units of the federation break even only at 62% capacity utilisation,⁵⁶ the long term viability of the organisation is seriously in doubt.

⁵² "Draft Project Report". KERAFED. 1985. op cit.

⁵³ The figures of total production was furnished by KERAFED officials. July, 1991.

⁵⁴ In 1976, the Coconut Development Board estimated that the state had a total installed capacity of 340,000 tonnes. Subsequently in 1979 and 1983, the Coconut Development Corporation added a further capacity of 36,000 tonnes, taking the total processing capacity to over 400,000 tonnes. KERAFED officials argue, that a large number of the smaller processing units had shut down during the eighties. Consequently, it is contended that there will not be any excess capacity. Source: Documents furnished by KERAFED. 1991.

⁵⁵ Records of KERAFED. 1991.

⁵⁶ "Draft Project Report". KERAFED. 1985. op cit.

The project aims not merely to supplement market agents, but to actually supplant them. KERAFED plans to procure nuts directly from the farmers through their co-operatives and eliminate the traders who traditionally service the farmers. However, currently only about 1.5% of the marketable surplus is sold to co-operatives; further, about 80% of the sales take place within the village itself.⁵⁷ This profile implies that market agents operate in small localised markets proximate to the production centres. The attempt of a centralised marketing agency to duplicate the activities of thousands of small traders in such a segmented market, would lead almost certainly to high overhead costs. As the troubled history of the Coconut Development Corporation indicates (see below), high overhead costs will eventually lead the organisation to offer below market prices for the produce of the farmers.

The Kerala State Coconut Development Corporation's objectives and strategies were similar to that of the KERAFED.⁵⁸ The Director's report of 1979 argues that " to stabilise the price of coconuts, copra and coconut oil, and to ensure a reasonable price to the cultivators, it is essential that the corporation enter the field of processing coconut and copra and marketing of

⁵⁷ See: "Kerala Agricultural Project:Project Report". Project Preparation and Monitoring Cell. Government of Kerala. Trivandrum. 1985.

⁵⁸ The corporation was set up in 1975, with the objective of promoting the integrated development of the sector. Records of the Kerala State Coconut Development Corporation. Trivandrum. 1991.

coconut products".⁵⁹ Accordingly, the corporation set up processing plants capable of processing 36,000 tonnes of copra annually. However, capacity utilisation averaged only about 30% during the first half of the eighties. Throughout the mid eighties, capacity utilisation fell until it was as low as 7%.⁶⁰ Currently, the corporation is not processing any copra. In 1990-91 it had an accumulated loss of around Rs 70 million⁶¹ (as against its paid up capital of 12.5 million),⁶² and all its activities including the purchase of coconuts from farmers are at a standstill.

The Coconut Development Corporation's history has grave implications for the KERAFED project. The corporation's history of losses is "instructive". The creation of excess capacity led to low capacity utilisation and consequent losses. We have seen that KERAFED is also building up a huge capacity, with probably similar results. Second, the organisation is heavily overstaffed. Between 1982-83 and 1986-87, at a time when the organisation was facing considerable difficulties, the staff strength was raised from 200 to 530.⁶³ Third, the government instructed

⁵⁹ "Director's Report". The Kerala State Coconut Development Corporation. Trivandrum. 1979. P: 11.

⁶⁰ Records of the Kerala State Coconut Development Corporation. Trivandrum. Various Years.

⁶¹ *ibid.*

⁶² "A Review of Public Enterprises in Kerala: 1980-81". Bureau of Public Enterprises. Government of Kerala. Trivandrum. 1982.

⁶³ The proximate reason for the increase in staff strength was the commissioning of the new processing plant in 1984. Casual workers, thus, increased from 210 in 1984 to 376 in 1985. Records

the corporation to buy nuts at artificially high prices so as to shore up the support price of coconut.⁶⁴ The coconuts purchased had to be sold at reduced prices resulting in huge losses to the organisation. The financial fragility of the corporation severely constrained its ability to offer higher prices to the farmers. In fact, corporation officials admitted to the author that they could only afford to quote below market prices. A corporation set up to offer higher prices to farmers ended up by offering prices lower than the market.

The probability of KERAFED falling a victim to the same circumstances is high. Excess capacity and market intervention to shore up coconut prices are liable to lead to losses. It is also very likely that the Coconut Development Corporation will be wound up and its staff absorbed in KERAFED. This would mean that, as in the case of OF institutions, KERAFED would be burdened with excess staff from its very inception.

The future prospects of KERAFED are very much in doubt. Its ability to serve its farmers is crucially dependent on its financial viability. This is impaired by the decisions already taken. Further, patterns of State-federation relations indicate that as in the case of the

of the Kerala State Coconut Development Corporation. Trivandrum. Various years.

⁶⁴ The government was forced to do this because coconut prices had fallen dramatically in the early eighties. The Kerala Congress started a virulent campaign, which included the blocking of roads and trains. As the party was a member of the ruling coalition, the government had to act even if it meant imposing considerable costs on the organisation.

corporation, State elites, to safeguard their interests will impose very high costs on the federation.

The Fisheries Sector

With nearly a million people (out of a population of 29 million)⁶⁵ engaged in fishing, fisheries is a major sector in the Kerala economy.⁶⁶ The economic condition of the fishermen, however, is poor with the majority of them living in appalling living conditions.⁶⁷ The government has made repeated attempts in the past to promote the development of this sector. The institutional forms chosen included both public sector corporations and co-operatives. The Kerala State Co-operative Federation for Fisheries Development(MATSYAFED) is the latest of these attempts.

MATSYAFED was started in 1984 with a view to initiating an integrated development of the fisheries sector. Attributing the lack of growth in the sector to institutional deficiencies, the project has aimed to organise fishermen into primary co-operatives called "Fishermen Development Welfare Co-operative Societies". These societies are federated to MATSYAFED.

⁶⁵ Census of India. 1991. op cit.

⁶⁶ The government estimates that there are around 929,000 active fishermen in Kerala today. See: "Economic Review". 1990. op cit.

⁶⁷ It is estimated that 48% of the households are only thatched huts; and only 10% of the houses possess minimum sanitary facilities. See "Economic Review". 1987. op cit.

The objectives of MATSYAFED have been identified as : (1) the creation of an institutional framework through which fishermen can exercise greater control over their resources; (2) the supply of inputs such as mechanised crafts and better quality nets so as to augment the productive capacity of the sector and (3) creating an effective system to market the produce of the fishermen.

To operationalise these objectives, the project called for the organisation of over 80 primary co-operatives during the first phase of the project. Technical inputs are supplied by MATSYAFED through these societies. The project also envisaged the construction of storage plants, common shrimp peeling sheds and ice plants. MATSYAFED has also plans to operate about 1000 retail outlets, using which, it hopes to intervene in the market. The entire project has a total outlay of about Rs 550.00 million.⁶⁸ It is financed mainly through loans advanced by the National Co-operative Development Corporation.

The brief outline of the project sketched above, indicates that the State has adopted the basic premise of the OF strategy for modernising the fisheries sector in Kerala : an apex federation charged with the responsibility of organising primary co-operatives, procurement of massive financial resources to build and operate infrastructure facilities and a mechanism for engaging directly in marketing. The efficacy of this strategy can in part be judged by the experience of similar attempts in the past.

⁶⁸ " Review of Activities". MATSYAFED. Trivandrum. 1991.

This is not the first time that the government has attempted to implement an integrated fisheries development project. The Fourth Plan(1969-74) document identified the fishermen's ineffectual control over their produce as the primary factor responsible for their poverty: " The lacunae of a well knit co-operative organisation covering the entire fisher folk, especially in the field of marketing, is responsible for the poor economic conditions for the fishermen".⁶⁹ An integrated master plan was drawn up in the Fourth Plan to modernise this sector. The scheme emphasised mechanical fishing, the construction of infrastructure facilities and market intervention to stabilise the price of fish.

The above objectives were to be realised through two institutional devices: Co-operatives and the Kerala Fisheries Development Corporation (KFC). The government encouraged the formation of co-operatives in the sector. Between 1960-61 and 1970-71, the number of co-operatives rose from 280 to 1002 and membership increased from 38,590 to 113,904.⁷⁰ The co-operatives were primarily engaged in the supply of inputs such as mechanised fishing vessels, nets and other inputs necessary for fishing. The KFC, on the other hand was engaged directly in fishing with a fleet of mechanised boats. It also operated a boat

⁶⁹ "Fourth Five Year Plan Document 1969-74". State Planning Board. Government of Kerala. 1968.P: 83.

⁷⁰ "Statistics for Planning". Bureau of Economics and Statistics. Government of Kerala. Trivandrum. 1982.

building yard, several cold stores and engaged in the marketing of fish in both foreign and domestic markets.

By the late seventies, the integrated fisheries project was considered a failure even by official bodies. The number of co-operatives had declined to 492 by 1978-79, and of these, only about 154 were actually engaged in fishing. The government itself concluded that "the fishermen producers' co-operatives have proved to be ineffective to promote the socio-economic welfare of the fishermen of the State".⁷¹ The KFC did not fare any better. The accumulated losses of the corporation had by 1978-79, mounted to Rs 62.1 million, which is about four times its paid up capital of Rs 14.90 million.⁷² The net worth of the company was negative and it was unable to finance even its current activities. It was subsequently wound up and its assets transferred to MATSYAFED.

We can offer here, only some tentative observations to account for the indifferent performance of both these institutional formats-the primary co-operative and the public sector corporation. First, a number of the co-operatives were really front organisations for powerful individuals to wrest resources from the State. An official Government of Kerala committee found that "the failures in the operation of the scheme for distribution of mechanised boats were due to the fact that the fishermen co-operatives to whom or through whom the boats were issued were all *benami* (ie under false name) co-operatives almost without

⁷¹ "Economic Review". 1979. op cit. P:49.

⁷² "A Review of Public Enterprises in Kerala 1980-82". Bureau of Public Enterprises. Government of Kerala. 1982.

exception. The rich and the influential among fishermen sponsored and controlled the co-operatives".⁷³

A second major problem was that over-investment in fisheries sector was leading to excessive exploitation of Kerala's fisheries resources. An expert committee appointed by the government remarked that investment in Kerala's coastal waters was far above desired optimum levels.⁷⁴ The negative consequence of this over exploitation was declining catches and resultant fall in the income of fishermen.

Third, the KFC's failure was primarily an organisational failure. It was overmanned and under-managed. The organisation had taken over the institutions run directly by the Fisheries department and its organisational culture did not change even after it became a commercial corporation. This was most apparent in its market intervention efforts in which it consistently lost money.

The failure of these two institutional forms - the primary co-operative and the public sector corporation- raises a question mark over the long term viability of MATSYAFED. There are already indications that it is

⁷³ See Krishnakumar S "Strategy and Action Programmes for a Massive Thrust to Fisheries Development and Fishermen's Programme in Kerala State (1978-83) ". Government of Kerala.1981. Quoted in Kurien J and Achari T R. in " On Ruining the Commons and the Commoner. The Political Economy of Overfishing". Working Paper No: 232. Centre for Development Studies.Trivandrum. 1989. P:15 & 16.

⁷⁴ See Kalwar A. G et al :"Report of the Expert Committee on Fisheries in Kerala". Bombay. 1985.

repeating the mistakes of its predecessors. First, an analysis of MATSYAFED's expenditure pattern reveals that of the Rs 50.58 million expended during 1990-91, Rs 40.60 million was spent on inputs such as outboard engines, crafts and nets.⁷⁵ We indicated that there is already excess capacity in the fisheries sector.⁷⁶ Consequently, the additional supply of equipment, led to heightened competition for a diminishing pool of fish stock. The result, as MATSYAFED itself admits is that " in all the districts except Trichur and Malappuram, the catch per fishing operation declined with an increase in the number of operations... the effort has over reached the optimum level and any increase in effort will not bring about an increase in quantity".⁷⁷

Second, the market intervention scheme to stabilise prices is questioned by officials of MATSYAFED itself. They fear that as in the case of the KFC, market intervention would leave them with unsold stocks, which can be liquidated only at great financial loss. But the funding agency, NCDC, and the government are pressing the organisation to open retail outlets and engage directly in marketing. As in the case of other marketing federations in Kerala, MATSYAFED will eventually adopt the agenda of the

⁷⁵ "Review of Activities ". MATSYAFED. 1991.

⁷⁶ Kurien and Achari attempted to quantify the extent of excess capacity in the fisheries sector, in the mid eighties, by comparing the recommendations of the expert committee with the actual number of crafts in Kerala. They came to the conclusion that there was 59% over capacity in the case of trawlers, 61 % in motorised crafts and 100% in the case of purseiners. See Kurien J and Achari T R. 1985. op cit.

⁷⁷ "Review of Activities". MATSYAFED. 1991.P:9.

State; in which case, the results of this intervention would be no different from the earlier interventions.⁷⁸

The foregoing indicates that the history of past interventions do not offer encouraging prospects for the new institutions. This is hardly surprising given that the allegedly new organisational formats are merely the repackaged progeny of failed institutions. In all the three sectors discussed, the nature of the current intervention is indistinguishable from earlier attempts. To illustrate, we summarise below a comparative analysis of the salient features of past and present interventions by the State.

I Dairy Sector

A) Institutional Form:

Past: Public Sector Corporation and primary cooperatives.
Present: Apex federation, Regional Unions and primary co-operatives.

B) Objective:

Past: Maintenance of urban milk supplies and increasing farm incomes.

Present: Identical

C) Content of Programme:

⁷⁸ Recent press reports indicate that MATSYAFED is in deep financial trouble. It is reported to have spent Rs 110.14 million as against a budget provision of only Rs 31.91 million for 1992-93. This would imply that the organisation has already withdrawn from the financing institution resources that were envisaged to be spent only in the subsequent years of the programme.

There are also allegations that outboard motors in excess of requirement have been imported from abroad. Due to lack of resources for clearing them promptly from the Cochin port, MATSYAFED is reported to have paid demurrage charges amounting to Rs 1.70 million. The Malayala Manorama. 3/1/1993.

Past: Procuring, processing and marketing of milk; input supply.

Present: Organisation of societies, procuring, processing and marketing of milk; input supply.

D) Management Team:

Past: Chairman: Secretary to Government. Managing Director: IAS. Senior Managers: Government Officials.

Present: Chairman: Political Leader. MD: IAS. Senior Managers: In 1989-90, all the three chief executives of the regional unions and three out of the four senior managers at the head office, were officers inherited from the predecessor organisation.

E) Degree of Autonomy:

Past: Pricing and staffing decisions taken by the government.

Present: Pricing and staffing decisions increasingly being taken by the government.

II Coconuts:

A) Institutional Form.

Past: Public sector corporation.

Present: Apex federation and primary co-operatives.

B) Objective:

Past: To stabilise the price of the commodity, by directly engaging in procurement, processing and marketing.

Present: Identical.

C) Content of Programme:

Past: Establish integrated copra processing plants; procure copra from traders and societies; extract oil and by-products and market the same under own brand name.

Present. Identical. The only additional function is the organisation of primary co-operatives.

D) Management Team:

Past : Chairman: Initially the Chief Secretary, subsequently, a nominated political leader. MD: Government official (Non-IAS).

Present: Chairman: Secretary to Government (Agricultural Production Commissioner). MD: IAS

E) Degree of Autonomy:

Past: All policy decisions taken by the Government.

Present: Identical.

III Fisheries Sector:

A) Institutional Form:

Past: Public sector corporation and primary societies.

Present: Apex federation and primary societies.

B) Objective:

Past: The creation of an institutional framework for augmenting fish production and to raise the incomes of fishermen. This is to be achieved through the implementation of an integrated fisheries development project.

Present: Identical

C) Content of Programme:

Past: Establish and operate, cold stores, ice plants and boat building yards. Input supply through co-operatives. Directly engage in fishing; operate retail outlets to market fish.

Present: Organise co-operatives. Supply of inputs through them. Establish and operate cold stores, kerosene depots, boat building yards and other infrastructure facilities. Plans to directly market fish.

D) Management Team:

Past: Chairman: Secretary to Government. MD: Government Official (Fisheries Department. Non-IAS).

Present: Chairman: Secretary to Government. MD: IAS.

E) Degree of Autonomy:

Past: All policy decisions taken by the government.

Present: Identical.

The comparative analysis summarised above indicates that in all the five categories, there is remarkable similarity between past and present interventions. This may appear odd given the failure of past interventions. Its rationality becomes apparent, when we observe that the nature and scope of state intervention is dictated by the priorities of the dominant interest groups that we have analyzed previously. All three groups- political leaders, bureaucrats and trade unions require that new organisations are created and maintained to safeguard their interests (See below). In all the three sectors, the old institutions- the Kerala Livestock

Development and Milk Marketing Board, the Kerala State Coconut Development Corporation and the Kerala Fisheries Corporation, were about to collapse under the weight of accumulated losses. The budget constraints of the government that we have analyzed in Chapter II, prevented the government from directly pumping in more resources to these institutions; hence, the search for institutional forms that could extract resources from other sources.

In all the three sectors, the new institutions offered fresh opportunities. In Chapters III, IV and V we had analyzed in detail the benefits that Operation Flood offered political leaders, co-operative elites, government officials and workers. In the case of the coconut sector, we noted that the political campaign orchestrated by a party of the ruling coalition was a factor in the government's decision to intervene in the sector. The political benefits that accrue to individual leaders were an added incentive.⁷⁹ Both senior and junior bureaucrats are also benefitted, as the new institution offered enhanced opportunities for upward mobility.⁸⁰ We have also observed that negotiations are going on for the absorption

⁷⁹ The location of one of KERADEF's processing plants was shifted from its planned location in Trivandrum to a village in Quilon district purely on political considerations. KERADEF officials estimate that as a result of this decision, the cost of the land development alone has gone up from Rs 3.6 million to Rs 6.00 million.

⁸⁰ It is not accidental that in all the three institutions-KCMMF, KERADEF and MATSYAFED- the chief executives are IAS officers and the senior managers are officers deputed or transferred permanently from the parent administrative department.

of all the 530 workers of the Coconut Development Corporation into KERAFED. Given the history of such negotiations in Kerala, it is almost certain that all the workers will be absorbed in to the organisation.

In the fisheries sector, a major factor responsible for the intervention through MATSYAFED is the conflict between traditional fishermen and mechanised boat owners over dwindling fish stocks. The former wants a ban on monsoon trawling so as to allow fish stocks to be replenished, while the latter wants unrestricted access rights. Since both groups are politically important, successive governments have been adopting the twin strategy of buying off traditional fishermen through a generous supply of subsidised inputs while imposing only a very limited ban on trawling so as not to alienate the boat owners.⁸¹ However, to buy the loyalty of the fishermen, resources are necessary. Hence the importance of MATSYAFED and its input supply programme. MATSYAFED is also necessary to maintain the jobs of workers and officials when the old

⁸¹ See Kurien J and Achari T. R. 1989. op cit, for a discussion on the conflict between traditional fishermen and the boat owners. Both the LDF and the UDF governments had problems with reconciling the competing claims of the two groups. The president of the boat owners' association is a prominent leader of the Kerala congress; and a member of the 1987-91 LDF government is a prominent seafood exporter. On the other hand, the traditional fishermen are electorally important in several coastal constituencies.

One way of reconciling these conflicts, was for the government to buy off the traditional fishermen. Kurien and Achari observes: " The Government warned against militant unionisation and divided the ranks of fishermen by placating those under its political influence with direct financial assistance -subsidies and loans-as well as access to intermediate technology". Page:34.

institutions collapsed. The KFC, the Fishermen Welfare Corporation and Inland Fisheries Development Corporation were all merged with MATSYAFED and all their staff absorbed into the new federation.

The above analysis indicates that in all the three sectors, fresh resources were required to maintain the interests of the dominant groups. The apex federation became a logical choice as this form enjoyed considerable prestige both with indigenous and international funding agencies. The Government's bid for resources was therefore tailored to reflect the current fascination with co-operative institutions.⁸² The institutional form is exogenously determined by funding requirements, rather than by any belief in its intrinsic superiority.

Summary

In this Chapter, we first examined the achievements of OF in various regions. We observed that in

⁸² This is evident most blatantly in the fisheries sector. A perusal of the MATSYAFED project report, reveals that the government originally did not plan to set up an apex federation. But paucity of funds with the government " suggested an altogether different approach which included the actual involvement of the fishermen and the mobilisation of funds through institutional credit, rather than dependence of the State's meagre funds". "Review of Activities". op cit. P:2

Having no resources of its own, the government approached the (National Co-operative Development Corporation) NCDC, which agreed to finance the project subject to the condition that it would lend only to co-operatives. Hence MATSYAFED.

The EEC's and World Banks's current policy is to promote agricultural development through co-operatives rather than through public sector corporations. Hence, it is not entirely coincidental that KERAFED is an apex co-operative and not a public sector corporation.

specific regions of the country, OF has substantially contributed to increased milk production . Analysis of pricing decisions, however, revealed that in all regions the price offered by the co-operatives was less than that offered by other market agents. As a result, farmers were becoming disillusioned with the co-operative system. An examination of the financial viability of OF institutions indicated that over 80% of these units are in a precarious financial condition . The inability of the co-operatives to pay higher prices to farmers and the delay in settling milk value payments appear to be a reflection of the financial fragility of these institutions.

The indifferent performance of OF institutions cannot be attributed solely to design flaws in the projects prepared by the NDB. Government policy has a significant bearing on the outcome of the programme. In almost all the provinces, this policy has been inimical to the interests of both farmers and the institutions themselves. Governments have sought to shield urban consumers from high milk prices by keeping down producer prices. When this proved impossible on occasion due to agitation by farmers, governments have forced the organisations to bear the cost. In the process, their fragile financial health has been impaired permanently. OF institutions are, therefore, regarded by governments, primarily, as instruments for the extraction of resources to implement their own agenda, rather than as effective vehicles for the aggregation of peasant interests.

In the last section, the validity of this observation was analyzed by examining the rationale of the choice of the apex co-operative as the instrument for State intervention in the coconut and fisheries sectors in Kerala. Compulsions other than the protection of peasant interests are responsible for the emergence of these new institutional forms in the eighties. The nature, scope and the form of State intervention in agricultural product markets appear to be determined by the choices made by the dominant groups within the polity.

CONCLUSION

State intervention in the Indian economy is both massive and pervasive. The impact of this intervention in trade and industry has been extensively debated.¹ There are, however, comparatively few regionally specific studies that explore the nature of State intervention in agricultural markets. We have analyzed one such intervention in Kerala and offered an explanation for the conspicuous failures that often accompany State intervention in the Kerala economy.

This thesis suggests that the interest group process, both within the organisations created by the State and in the larger polity, crucially determine programme outcomes. Access to State power is the key variable determining group competition within organisations. State and co-operative elites, trade unions and government officials have benefitted from the programme, while dairy farmers derived sub optimal returns from the programme.

We have adopted a political economy approach to analyze the nature of State intervention in the Kerala economy. The State in Kerala promotes policies that enhance the relative economic position of well organised groups. Farmers are negatively or positively affected depending

¹ See Bhagwati N J and Desai P. 1970 and Bhagwati N J and Srinivasan T N. 1975 and Krueger A O 1974.

upon whether the goods they produce are required for the consumption of the dominant groups. We also argued that the State continues to intervene, despite past failures, due to the demand for fresh resources from the dominant groups. Agricultural policies, though initiated in the name of farmers, were often observed to be mere instruments for the extraction of resources.

These arguments were illustrated by a study of dairy markets in Kerala. Comparative analyses of rubber, paddy, cashew, coconut and fisheries sectors were also made to examine the validity of these assumptions. The dairy industry in Kerala is dominated by a large number of marginal producers with low marketable surpluses. Market exchanges are mediated primarily through petty traders with little investible surpluses.

This market profile has negative implications for the dairy economy. Milk being a bulky, perishable commodity, requires an elaborate procurement, processing and marketing system to manage seasonal variations in supply and demand. However, in an economy dominated by numerous small producers, problems associated with collective action are liable to prevent the spontaneous emergence of institutions capable of such investment.

In the 1960's and 1970's, the State in Kerala attempted to play the role of the dynamic entrepreneur. It intervened in dairy markets both directly by setting up dairy plants and indirectly by sponsoring dairy co-

operatives. In the eighties a new institutional mechanism was adopted- the Anand Pattern Co-operative system popularised through Operation Flood. Based on the successful co-operatives of Gujarat, the new strategy aimed to empower farmers through the replication of APCOS.

We examined the efficacy of State intervention in the dairy sector in terms of four criteria: 1) Has the intervention led to increased milk production and has it strengthened the organised sector. 2) Has it resulted in the effective management of seasonal variations in Kerala. 3) Are the institutions created by the intervention self-sustaining, profitable organisations and 4) Has the intervention ensured remunerative product prices for farmers.

Analysis of production trends confirmed that milk production both in Kerala and in the country as a whole, had increased substantially in the seventies and eighties. In Kerala, the increased production is attributed to both demand and supply factors. Price trends indicated that for most of the period under study, the price of milk substitutes, such as meat and fish, was accelerating faster than that of milk. The consequent higher demand for milk may have stimulated milk production in Kerala. Supply factors such as changes in the composition of the milch herd and the movement of relative prices have also contributed to the increased production of milk. Owing to a variety of factors, including the fragmentation of holdings and the conversion of paddy lands to garden lands,

farmers found it more economical to hold milch cattle rather than work cattle. In the seventies, feed prices were also increasing slower than milk prices. This conjunction of favourable demand and supply factors contributed to the dynamism exhibited by the animal husbandry sector.

However, the single most significant factor responsible for increased milk production in Kerala, is the high productivity of milch cattle. This is a function of the State's imaginative cross-breeding policies such as the Indo-Swiss Project and the massive Artificial Insemination programme launched in the early seventies. These programmes enabled the average milk yield of a cow to treble during the last two decades. These programmes, however, pre-dated OF.

OF's contribution is, in fact, marginal to the increased production of milk in Kerala. The pattern of resource allocation in the programme is skewed in favour of processing and marketing facilities, rather than in projects that directly enhance productivity. While the availability of increased marketing outlets have an impact on the supply responses of farmers, it is difficult to quantify the contribution made by OF to increased milk production in Kerala. This is especially so, as OF institutions in Kerala still handle less than 10% of the total marketable surplus in Kerala.

At the all India level, OF's claim to have increased milk production has provoked a great deal of

debate.² Pointing to the limited coverage of OF and its skewed investment pattern, critics have argued that increased milk production in the country is due to market forces rather than OF. However, regionally specific studies have indicated that in southern and western India, OF has had a positive impact on milk production.³

The second criterion is how far State intervention had overcome the perennial problem of seasonal imbalances in supply and demand. Producers faced with falling demand and excess production during the flush season, are often forced to dispose their milk at very low prices to traders and tea shops. These market imperfections could be corrected by investing in feeder balancing dairies and milk powder plants; but as already mentioned, a segmented market dominated by marginal producers is unlikely to generate the surpluses for such investment-hence one rationale for State intervention.

State intervention in the pre-OF period did not, however, succeed in correcting these distortions. Despite the State investing in a number of dairy processing plants, the market's ability to manage lean/flush variations remained very limited. Trivandrum, Calicut and other urban centres in Kerala continued to experience severe shortages during the lean period and excess supply during the monsoon when production is at its peak.

² See George S. 1985 and Doornbos M and Nair K.N. 1990.

³ See Alderman H . 1987. op cit. and Mergos G and Slade R. 1986. op cit.

A partial explanation for this is that investment by the State was not keeping pace with the increases in milk production. As late as 1980, Kerala did not have a single feeder balancing dairy or milk powder plant. The State's inability to substantially increase its direct investment in the sector could be traced to the crisis in the State's finances that was manifest from the mid seventies.⁴

In these circumstances, OF with its vast investible resources was seen as a panacea for correcting the distortions in the dairy markets. Between 1982 and 1991, the programme pumped nearly Rs 223 million into the dairy economy of Kerala; 88% of which was invested in processing and marketing facilities.⁵ An elaborate network of primary co-operatives, chilling centres and processing plants was set up in the province.

The impact of the programme was dramatic in terms of augmenting the organised sector's milk-handling capacity. Milk processed in the co-operative sector increased from 67,000 LPD in 1983 to 286,000 LPD in 1991.⁶ OF institutions had a commanding share of the market in a

⁴ We had observed in Chapter II, that since the mid Seventies, the revenue account of the government was in surplus in five years only. Further, the bulk of the government's revenue income is spent on social services. In 1989-90, for instance, 60% of the development expenditure was on education and health. In contrast, expenditure on agriculture, animal husbandry and rural development, together accounted for only 8.2%. See: "Kerala Budget in Brief 1991-92". 1991. op cit.

⁵ Confidential records of KCMMF. 1991.

⁶ *ibid.*

number of urban centres in Kerala. Further, through its institutional ties with the NDDB and sister federations in other provinces, the KCMMF was better able to tackle seasonal variations. The NDDB provided cheap, donated commodities for recombination during the lean months, while neighbouring federations in Karnataka and Tamilnadu were persuaded to take the excess milk of the Kerala federation during the flush season. The massive investment made by the programme and the ability of OF institutions to forge lateral linkages with other institutions outside the province, provided some stability to dairy markets in Kerala.

There were however major negative developments towards the close of the 1980's and the beginning of the 1990's. OF institutions in Kerala were unable to handle the excess production of 1989. The inability of neighbouring federations(who had their own problems of excess production) to absorb the excess production of Kerala resulted in excess milk being poured into city drains. This throw-back to the instabilities of the pre- OF days damaged the reputation of OF institutions.⁷ There were indications that producers negatively affected by the inability of the

⁷ Both the NDDB and co-operative leaders in Kerala had assured dairy farmers that with the introduction of OF, they would have assured marketing outlets. However, in the course of the field visit, many of the dairy society presidents informed the author that the organisation's failure to lift all the milk during the flush season of 1989, had alienated them from the organisation.

Field Visit: June-July. 1991.

organisation to offer assured marketing outlets were opting out of the dairy sector.

The second development was that, beginning from mid 1990, OF institutions in Kerala began to experience a steady fall in procurement. While increased rural demand was a factor in the reduced inflow into the co-operative sector, detailed analysis revealed a more complex picture. Field interviews with society presidents confirmed that the crisis of excess production in 1989 and the inability of OF institutions to manage it, eroded the faith of farmers in the organisation. They were now hedging their bets, by exploring alternative marketing channels or in some case opting out of dairying altogether. Second, the ability of OF institutions to sustain the initial momentum was contingent on the availability of feed and fodder. Kerala, being chronically deficient in both these resources, could have reached the limits of the programme.

Third, policy choices made by the co-operative elites, such as the reliance on subsidized inputs rather than on high product prices, encouraged free-riding by farmers. Only a minority of farmers received subsidized inputs, the cost of which was then recovered by levying a flat rate on all milk suppliers. In this system it was more rational for each farmer to minimise his supplies while enjoying the maximum benefits. The fourth and most potent factor responsible for the reduced inflow to the co-operative sector was the latter's inability to offer remunerative prices to farmers. This inability is a product

of the financial fragility of most OF institutions coupled with the strategic choices made by State elites.

Analysis of the financial performance of institutions in the pre- OF period indicated that nearly all the State sponsored institutions were facing grave financial problems. The KLDMMB, the public sector corporation responsible for operating the State dairies as well as all the State- sponsored urban milk supply schemes, had accumulated losses running into millions of rupees. Eight out of the ten district milk supply unions and 51% of the primary societies were also operating at a loss in 1979-80.⁸ Pre- OF dairy institutions in Kerala were financially fragile organisations wholly dependent on the State budget for both routine functions and investment. This dependence constrained their ability to offer producers prices higher than that mandated by the State.

OF sought to overcome the financial dependence on the State through the creation of a viable self-sustaining dairy industry. The institutional framework selected for this was the three-tiered co-operative structure in which farmer-owners delegated operational control to technocrats. It was assumed that the NDDB, by insulating these institutions from societal and State pressures, could overcome the weaknesses of earlier interventions in the dairy sector.

⁸ "Administrative Reports". Various Issues. Department of Dairy Development. op cit.

The experience of the past ten years does not validate this optimism. Of the 139 milk unions for which information is available, 86% had accumulated losses of varying degrees.⁹ In Kerala, the apex federation(KCMMF) is currently operating at a loss. Of the three regional milk producers' unions (TRCMPU, ERCMPU and MRCMPU), only the TRCMPU is making profits.

A number of factors are responsible for the poor financial performance of OF institutions. First, OF institutions inherited the accumulated losses of the institutions created by prior interventions. The Government of Kerala, while handing over the dairies and chilling centres to KCMMF, required the latter to take over liabilities amounting to Rs 3.3 million.¹⁰ Federations all over India had to take over similar liabilities of varying magnitude. No less damaging was the requirement that all the excess staff in the pre-OF institutions should be absorbed by the newly created OF institutions. Against a staff strength of 35 required to operate a 60,000 LPD dairy, pre- OF institutions such as the Kottayam dairy had 96 employees processing an average of 1200 LPD.¹¹ Such gross overstaffing was observed in all other pre-OF institutions. The absorption of all this excess staff into OF institutions, undermined the financial stability of these fledgling organisations. In MRCMPU, the newly created

⁹ Confidential records of the NDDB.1991.

¹⁰ Confidential Records of KCMMF.1991.

¹¹ ibid.

regional union in Malabar, the absorption of excess staff increased its wage bill from RS 69.12 million to Rs 144.00 million per annum and in the process, a small profit was converted into a huge loss.¹²

Inability to keep down staff costs was a major contributory factor to the poor financial performance of OF institutions. Managerial pay increases in some categories were as high as 18% per annum during the period 1986-1991. Such increases were correlated neither to individual performance nor the profitability of the organisation as a whole. Rather, they were a product of the ability of well organised groups to channel more of the organisation's resources to themselves. The use of organisational resources for developing a political constituency was another contributory factor. The sale of cattle feed at prices below the cost of production was the major factor responsible for the losses of the cattle feed plants.

State pressure also materially helped to weaken the financial health of OF institutions. By requiring them to organise societies and operate milk routes in areas that could not sustain a viable dairy industry, OF institutions were in fact asked to take on the developmental role of the State. The organisation's viability was further undermined by the State refusing to permit the organisation to raise the consumer price of milk in line with the rate of inflation.

¹² Confidential Records of MRCMPU.1991.

As a result of the factors summarised above, the finances of most OF institutions in the country are in a perilous state (See Chapter VII). Their poor financial status has impaired their ability to provide assured markets and remunerative prices to dairy farmers. Reports from different parts of India indicate that dairy farmers are turning away from the co-operative sector due to poor prices and delayed payments.¹³

This takes us to the consideration of the last criterion: Has State intervention resulted in higher product prices for dairy farmers?. The failure of markets to offer a remunerative price is an oft made claim to rationalise State intervention. The history of State intervention in the pre-OF period clearly indicates that intervention became an instrument for keeping down the producer price rather than increasing it. In Trivandrum dairy, the purchase price of milk was virtually frozen in the late sixties and early seventies. The farmers in Trivandrum district had on several occasions withheld supplies to the dairy until the government increased milk prices.

Analyzing the politics of milk pricing, we noted that prior to OF, decisions on milk pricing were taken at the highest levels of the Government of Kerala. A suggestion by the Government of India to delegate pricing

¹³ See for example: 1) "A Rapid Survey of Declining Milk Production in the South", 1991. op cit. 2) "A Rapid Study of Milk Procurement in Bulandshahr Union". 1991. op cit and 4) "A Quick Survey of Declining Milk Procurement in Madhya Pradesh". 1991. op cit.

LH

decisions to an independent committee was rejected on the grounds that such a committee would reflect producer interest and thereby harm the interests of the consumers.¹⁴

OF was launched with the avowed aim of establishing an institutional framework in which dairy farmers will have control over their own resources. In the initial years of the programme in Kerala, OF institutions had considerable autonomy in fixing producer and consumer prices. This autonomy was gradually weakened, until by the beginning of the nineties, pricing decisions were once again being taken by the government. The reassertion of State control manifested itself in a reluctance to raise prices even as farm incomes were being eroded by high input costs. Data from other parts of the country also indicate that the prices offered by OF institutions were well below market prices.¹⁵ Producers were becoming disillusioned with the co-operative system and were exploring alternative marketing channels.

This summary indicates that while State intervention had some success in increasing milk production and stabilising markets, it failed to establish a financially viable, producer-friendly, dairy industry.

This patchy record can be interpreted in several ways. Most critics of OF have argued that design flaws in

¹⁴ Noting on the confidential files of the KLDMMB. Trivandrum. 27/1/1977.

¹⁵ The quick evaluation studies undertaken by the NDDB in 1991, clearly indicated that milk prices offered by the co-operatives were lower than market prices. (See footnote: 12)

the conception of OF have pre-determined the outcome.¹⁶ It has been argued that the APCO model which evolved in a specific historical and geographical context was unlikely to succeed when transplanted elsewhere. It was also contended that the adoption of a western oriented, capital intensive system was bound to fail in the Indian context.¹⁷ While we recognise the force of these arguments, design flaws alone cannot account for the mixed outcomes that we have identified above: Milk production has increased in the country, while OF institutions have become weak and unable to respond to producer interests.

Another hypothesis would be to view the indifferent outcome as an organisational failure. In Africa, observes S. Quick, co-operative programmes are often imbued with the grand vision of transforming society.¹⁸ In Zambia, President Kenneth Kaunda used the agricultural co-operatives to popularise his ideology of "humanism", which emphasised the equality and brotherhood of man. These co-operatives were expected to achieve a variety of goals including: promote a sense of national identity, increase political participation, ensure equality in the distribution of income and produce collective goods

¹⁶ See George S. 1985, Doornbos M et al. 1990 and Doornbos M and Nair K.N. 1990.

¹⁷ ibid.

¹⁸ See Quick S: "The Paradox of Popularity: Ideological Programme Implementation in Zambia", in Grindle M.S ed: Politics and Policy Implementation in the Third World. Princeton: Princeton University Press. 1980.

for the rural population.¹⁹ In Tanzania, President Julius Nyerere attempted to bring about social and economic transformation through the concept of the "Ujamaa" co-operatives, a system by which politically committed farmers would live and work in communal farms.²⁰ For Nyerere, the real driving force behind the co-operative movement was the spread of socialist principles.²¹ These "ideological programmes", as Quick describes them, are characterised by "multiple objectives, ambiguous and non measurable goals".²² These programmes are likely to produce sub optimal results since the decision making process within the organisation is adversely affected by goal confusion. Quick argues that agencies which implement programmes with vaguely defined multiple goals are unable to " produce technically rational solutions to the problems of implementation".²³

OF has multiple goals. It sought to increase milk production in the country, remove rural poverty, ensure urban milk supplies and maximise farm incomes. However, attributing failure to goal confusion denies the central actors' capacity for autonomous choice. Why are only some

¹⁹ ibid.

²⁰ See Coulson A : Tanzania: A Political Economy . Oxford: Clarendon. 1982.

²¹ See Saul J.S :" Marketing Co-operatives in a Developing Country: The Tanzanian Case", in Worsley P ed: Two Blades of Grass :Rural Co-operatives in Agricultural Modernization . Manchester: Manchester University Press. 1971.

²² See Quick S. 1980. op cit.

²³ ibid.

goals realised and not others?. This approach tends to underplay the explanatory vigour of power as a central variable in determining programme outcomes.

In this thesis, we have adopted a framework of analysis in which the dispersal of power between competing groups crucially determines outcomes. Two levels of analysis were identified: one concentrating on the interest group process within the organisation and the other on the larger polity outside it. Programme outcomes in this framework are dependent on the results of group competition over the allocation of resources.

Five key groups were involved in the programme: the national technocracy as exemplified by the NDDB; Co-operative elites; officials of the dairy bureaucracy; organised labour and State elites. They had conflicting objectives. The NDDB itself had concluded that Kerala had a very poor resource base for mounting an ambitious dairy development programme.²⁴ In this context, the NDDB's decision to finance the project in Kerala cannot be explained as a disinterested attempt to maximise farm incomes. The conditionalities attached to the programme clearly indicated that NDDB's hidden agenda was to wrest policy making power from the State.²⁵ Dairy policy in the

²⁴ Interview with V.Kurien, Chairman NDDB, at Anand on 22/7/91 and discussions with senior executives of the NDDB at Madras on 3/4/91 and at Bangalore on 18/4/91.

²⁵ "Agreement Between the Government of Kerala and the Indian Dairy Corporation". See: Letter dated 6/4/79 from the Special Secretary, Department of Agriculture, Government of Kerala to the Chairman NDDB. (Note: The Indian Dairy Corporation and the NDDB had a common Chairman in V Kurien. Following the

future would be determined by a new techno-managerial class, who would act on behalf of the dairy farmers. The design of the decision making structures in OF institutions reveal that there was a conscious attempt to minimise the role of the State.²⁶

This objective was defeated as a consequence of the NDDB's attempt to replicate the APCO model all over the country. Having no machinery of its own to operationalise its ambitious plans, the NDDB was forced to depend on State agencies including the dairy bureaucracy. State help was required by the NDDB to launch the programme, to monitor it and to guarantee the loans that it extended to OF institutions. Such dependence, naturally increased the relative power of the State elites within the organisation. As the programme matured, and the various projects were completed, the quantum of financial inflows into OF institutions from the NDDB diminished. The power to deny or grant project finance was a major source of the NDDB's power vis a vis the State. The diminution of this power considerably weakened the ability of the NDDB to act as a buffer between the State and the organisation.

Co-operative elites constitute another major group within the organisation. By co-operative elites, we mean that group of co-operative leaders who are either

recommendations of the Jha Committee in 1985, both the organisations were merged into one.)

²⁶ See : Bye-laws of the Kerala Co-operative Milk Marketing Federation and Bye-laws of the Trivandrum Regional Co-operative Milk Producers' Union.

elected/nominated decision-makers within the organisation and key political allies and opponents of such decision makers. Co-operative elites in Kerala achieve elective office within the organisation through political processes that are largely determined exogenously. In the regional union elections, the rival panels are selected by the Kerala Pradesh Congress Committee and the Communist Party of India(Marxist). Of institutions in Kerala, thus came to be dominated by professional politicians who were only nominally dairy farmers. An analysis of the background of the 24 elected board members of the Trivandrum and Ernakulam regional unions indicates that only seven members are farmers in any real sense of the term.²⁷ The majority are either professional politicians or teachers and advocates with close ties to political parties.

This under-representation of farmers in an organisation supposedly organised to aggregate farmer interests, is likely to skew the allocation of resources away from farmers. We have indicated above, that inability to keep staff costs down was a major factor in the organisation's financial crisis. Political decision-makers were prepared to trade higher management pay in return for operational control over the organisation. Politicians also came to dominate such technical committees as the Programme Committee and the Purchase Committee, which in the NDDB design were to be run by technocrats answerable to the full Board. Control over these committees created avenues for

²⁷ Field survey. June-July 1991.

"rents" which were then deployed for creating a political constituency. Key allies, for instance, were rewarded with large volumes of subsidized feed, which could be resold at open-market rates. In this process, however, the viability of the feed plants was impaired.

Unlike the sugar co-operatives of Maharashtra, political competition in the OF institutions of Kerala has not resulted in optimum solutions.²⁸ In part this may be due to the fact that the board members of the sugar co-operatives, though politicians, are nevertheless sugar farmers. Their personal economic interests are bound up with the success of the co-operative as a viable financial entity. There is no such congruity in the economic and political interests of the co-operative elites of Kerala. Generally, being dairy farmers only in name, their interests are best maximised by policies that heighten their political profile and help to create a rural political constituency. These policies include the initiation of high profile, resource-demanding projects, selective incentives such as subsidized feed and a staffing pattern which tolerates high levels of feather-bedding.

Apart from the financial costs imposed by the political use of organisational resources, it also imports exogenous conflicts into the organisation. The Left Democratic Government's perception that the Congress-dominated leadership of the KCMMF was deploying the

²⁸ See Baviskar B S: The Politics of Development: Sugar Co-operatives in Rural Maharashtra. Delhi: OUP. 1980.

organisation's resources towards partisan ends, was an important factor in the State's decision to assume increasing control over KCMMF. Given the State's monopoly over "coercive" power through statutory institutions such as the Registrar of Societies, co-operative elites had to come to an accommodation with the State. This accommodation often manifested itself as submission to the State's directives in pricing, staffing and investment decisions.

The dairy bureaucracy had at first welcomed the programme in the belief that resources would be channelled through it; but the NDDB's attempts to diminish the role of the dairy bureaucracy created tensions between OF institutions and State agencies. The Dairy Development Department had considerable statutory powers of inspection over the co-operatives. It also operated various State subsidy programmes. Department officials used a combination of financial inducements and legal threats to create division among the dairy co-operatives. In the process, the dairy bureaucracy was able to win back some of the control they had lost when OF was first launched.

Organised labour was a major beneficiary of the programme. We had observed that all the urban milk supply schemes were running at a loss during the pre-OF period. The absorption of all the personnel in these plants into OF institutions not only ensured security of employment, but also a substantial increase in wages. The absorption of excess staff and the subsequent wage increases were secured primarily due to the strong political links that

the union leaders had with co-operative and State elites. Elected officials of the co-operative were often subordinate to the trade union leaders in the party hierarchy. This necessarily reduced their ability to combat the demands made by union leaders. As professional politicians, "acting rationally", co-operative elites would prefer to seek an accommodation with trade union leaders rather than precipitate a conflict that might damage their political interests. Such accommodation would often involve a rather "relaxed" view of the use of organisational resources.

State elites constitute the most powerful group in OF institutions. By State elites, we mean the elected political leaders and senior civil servants including Secretaries to Government. The source of their power within the organisation is four fold: legal, organisational, financial and political.

Co-operative institutions in India are, in law, supervised by the Registrar of Societies. He has the power to deny registration to a society, issue directions to it on routine affairs, amend its bye-laws and dismiss its elected officials. The Registrar is a transferable civil servant and as such is subordinate to the elected political officials in the government. The threat to use the coercive power vested in the Registrar is sufficient to bring even the most independent minded co-operator into line.

Organisational power is derived from the presence of State elites in the boards of OF institutions. The

Managing Director of the KCMMF is usually an IAS officer. Of the remaining thirteen directors, a further three are government officials. They are : the Secretary to Government (Department of Animal Husbandry), the Registrar of Societies and an official from the Department of Finance. Since the Secretary and the Registrar are usually IAS officers, along with the MD, they may well act as a group within the board.

Though heavily outnumbered in the board, State elites are able to exercise disproportionate power, because of the strategic positions they occupy. Thus the MD is the chief executive officer of the organisation; and we have already referred to the powers of the Registrar. The Secretary to Government is the head of the State Dairy and Animal Husbandry bureaucracy and is vested with a great deal of statutory and financial authority. Moreover, he is the representative of the minister in the board and as such projects the minister's statutory and political power into the decision-making process.

The financial power is derived from the guarantees that the State extended to the NDDB for the loans secured by OF institutions. The NDDB applies to the government whenever an OF institution defaults on its repayment obligations. This offers State elites opportunities to intervene even in routine decision-making. Further, the State directly operates a number of programmes through the dairy and animal husbandry departments. Pliant co-operatives can be rewarded and

recalcitrant societies punished by the judicious use of selective incentives and disincentives.

Elected officials of OF institutions in Kerala are professional politicians. While some of them may have chosen to become involved in the co-operative sector through notions of the public interest, these institutions are often a stepping stone to positions of power and prestige outside the organisation. Co-operative elites are often serious contenders for nominations as party candidates in legislative and parliamentary elections. Party leaders and ministers with powers to dispense such favours, therefore, exercise a great deal of influence over co-operative elites.

The above summary of the relative power potential of competing groups indicates that the nominal representatives of dairy farmers are often unable to safeguard the interests of farmers. Conflicts over the allocation of resources are decided in favour of groups that are politically powerful. Trade unions are able to ensure the absorption of excess staff and higher emoluments because of their access to political leaders who outrank the co-operative elites. Key political allies are permitted to siphon off organisational resources for dispensing political patronage. Diversion of resources to these groups constrain the ability of the organisation to offer higher prices to dairy farmers.

Meanwhile the autonomy of the organisation was being steadily eroded. The NDDB had positioned itself as a

protector of farm interests against the State. Despite its techno-bureaucratic structure, it had acted as a buffer in the initial years of the programme. But the technocracy underestimated the power of the State. All over India, the elaborate checks and balances which the NDDB had incorporated into the APCO bye-laws to keep the State at bay, were diluted. In Gujarat, the reputations of Amul and Kurien were sufficient safeguards. In other provinces where OF institutions were created through deliberate State action and where the co-operative elites were in effect the junior partners of State elites, the programme became an instrument of the State.

State elites have multiple, complex goals. Programmes such as OF and the integrated coconut and fisheries projects are justified on the grounds that they maximise social welfare. Market imperfections may require the State in Kerala to play the role of the dynamic entrepreneur in dairy markets; but the choices made by the State crucially determine the outcome of such interventions. While such State interventions have helped to increase milk production and stabilise dairy markets, they have failed to create a financially viable institutional framework within which dairy farmers could maximise their incomes. Our analysis of State intervention in the paddy, coconut and fisheries sectors, confirmed the co-existence of two sets of apparently contradictory policies. One set designed to boost production through specific projects, the other apparently inhibiting the

realisation of such goals through monopoly procurement, price controls and other ruinous policies.

The explanation for such paradox becomes apparent, when we view these programmes in the context of the larger distributional conflict in Kerala. Governments can be viewed both as agencies that seek to promote the interests of organised groups and as agencies that seek to retain power.

In the first view, the State in Kerala is seen to promote policies designed to ensure the availability of cheap agricultural commodities required for the consumption of the dominant groups. The Kerala Rice and Paddy (Procurement by Levy) Order of 1966, which coerced farmers to sell their produce to the State at below market rates and the Kerala Land Utilisation Order of 1967, which banned the conversion of paddy lands to garden lands were designed to ensure the availability of cheap rice. The Kerala Raw Cashew Nut (Procurement and Distribution) Act of 1981, which required the farmers to sell their raw nuts to the State at State determined prices was designed to ensure that the State-owned cashew factories would not be starved of raw material. State controls over the price of milk both in the pre-OF and OF periods, while simultaneously proceeding with productivity enhancement schemes are further illustrations of the State's efforts to maximise supplies at below market rates (See Chapter II and III).

Farmers experience positive or negative policies depending on their location within the political economy of

Kerala. Rubber growers, for instance, produce goods not required for the consumption of the dominant groups in Kerala. Moreover, the specific characteristics of the sector (such as its geographical concentration and the presence of a large estate sector), enable rubber producers to overcome the problems of collective action to some extent. Paddy and dairy farmers, on the other hand, being dispersed and marginal producers of consumption goods required by the dominant groups, are unable to optimise their returns through collective action.

As agencies that seek to retain power, governments require resources for building a political constituency and for ensuring the loyalty and cooperation of key subordinates and allies. Programmes such as OF and the integrated coconut and fisheries development projects offer opportunities for aggregating the political and personal interests of State elites. Elected political officials, such as members of legislative assemblies and ministers, find in these programmes, avenues for creating a political constituency through the dispensation of political patronage. Civil servants maximise their career opportunities, while trade union leaders are able to ensure for their followers job security with enhanced emoluments.

Institutions such as KCMMF, KERAfed and MATSYAFED, which were designed to aggregate the interests of vulnerable peasants, instead become mechanisms for the extraction of resource for the consumption of State elites.

New programmes and new institutions are needed as the viability of existing institutions are weakened.

The history of State intervention in Kerala indicates that the vast majority of the institutions, whether State-sponsored co-operatives or public sector corporations, are financially fragile structures. Only 28 out of the 124 non dairy marketing co-operatives in Kerala are currently working at a profit.²⁹ Similarly only 34 out of the 96 State owned institutions made a profit in 1989-90.³⁰ Despite such poor performance, new institutions continue to be created in Kerala. This is explicable only if we view them, not as economically rational solutions to developmental problems, but as political responses to the demand for fresh resources.

State intervention, thus, has a differential impact on various groups in the polity. The nature of the political process in Kerala endows well organised interest groups with disproportionate access to policy formulation. Organised labour, with its symbiotic relationship with political leaders and government officials, with their power to trade State funds in return for policies that enhance their relative position in the economy, are both benefited. Dispersed, marginal producers of food crops, on the other hand, are adversely affected. Distributional conflicts are

²⁹ Records of the Department of Co-operatives, Government of Kerala. 1991.

³⁰ "A Review of Public Enterprises in Kerala 1989-90". Bureau of Public Enterprises, Government of Kerala. Trivandrum. 1991.

thus settled in favour of groups that have access to State power.

Our analysis of agrarian policies in Kerala thus incorporates elements of both the Public Choice critique of the expanding State sector and Bates' analysis of agrarian policies in Africa. While we recognize that State elites may be motivated by notions of the public good, the indifferent outcomes of so many State sponsored programmes, raise doubts about the validity of a welfare maximizing interpretation of State behaviour. Our study indicates that the sub optimal results of public policies can be explained by the political and economic benefits that such policies confer on State elites. Co-operative organisations, for instance, offer State and co-operative elites, the opportunity for enjoying policy generated rents. Some of it they consume themselves; the rest are deployed for creating a political constituency. This political utility of rents and the pressure exerted by organised groups allied to State elites provide the rationale for State intervention in the economy. Economically inefficient programmes, thus, far from being the unanticipated outcomes of public policies, are in fact, the product of the autonomous choices of State elites.

Epilogue

Our analysis of the political economy of State intervention in Kerala, leads to a depressing conclusion about the results of public policy. There appears to be no

reappraisal of the efficacy of current policies while State elites are apparently convinced about the necessity for further massive intervention in the economy.

We, however, believe that the objective conditions in Kerala, can no longer sustain this pattern of intervention. Financial and economic crises may force State elites to re-evaluate some of the basic assumptions on which public policy has hitherto been formulated. Grindle and Thomas, point out that a crisis presents a "moment" or opportunity for bringing about major changes in public policy.³¹ The State can break free from organised pressure groups or even from the rent-seeking behaviour of its own agents and promote policies that advance national interests. The manifest failure of the existing policy to satisfy even the narrow interests of the dominant groups may discredit this framework. This creates the necessary political space for State elites to initiate policies that differ markedly from the existing system. They may also conclude that to legitimise their own positions it may be necessary to distance themselves from the old discredited system.

In the Kerala context, two types of crises can be distinguished: economic and fiscal. The economic crisis, we noted in chapter II, manifested itself as stagnation in the commodity producing sectors of the economy. Per capita income declined in the mid eighties and unemployment had

³¹ See Grindle M. S and Thomas J. W : Public Choices and Policy Change : The Political Economy of Reform in Developing Countries. Baltimore: Johns Hopkins University Press. 1991.

soared.³² An estimate by Oommen indicates that of the 14 major provinces in India, Kerala had the lowest growth of employment in the registered manufacturing sector in the period 1970-71 to 1980-81.³³ Unemployment is a major emotive issue in Kerala. Political parties had hitherto responded to the problem by demanding the creation of jobs in the State sector. The fiscal crisis of the government makes direct intervention increasingly difficult.

The fiscal crisis is manifested in two ways. First, the government is unable to mobilise adequate resources to invest in the economy. Oommen estimates that the per capita plan outlay of Kerala has been well below the all India average since the Fourth Plan (1969-74). Whereas in the Fourth Plan the per capita outlay of the state was Rs 156, as against the All-India average of Rs 142, in the Eighth Plan (1985-90) the figures were Rs 727 and Rs 1026 respectively.³⁴ Second, there is evidence that some of the impressive achievements in the social indices of development could be threatened due to lack of resources to maintain public assets. Universal health care, for

³² Per capita annual income (in 1980 prices) decreased from Rs 1462 in 1981-82 to Rs 1400 in 1987-88. The number of work seekers in the live registers of the Employment Exchanges increased from 1.58 million in 1980 to 3.07 million in 1989. "Economic Review". Various Issues. op cit

³³ See Oommen M A " Development Experience, Development Priorities and Fiscal Resources of Kerala". People and Development. Supplement. No: 3. April- May 1992.

³⁴ ibid.

instance, becomes problematic when government hospitals lack the resources to purchase adequate medicines and equipment.³⁵

A greater source of embarrassment is the recent dislocations in the functioning of the treasury due to inadequate funds with the government. Payments to government contractors have been held up and there are also reports that the disbursement of salaries of government staff and public sector employees had been delayed.³⁶ The inability to meet even the needs of the dominant groups is bound to raise serious doubts about the validity of the existing policy framework. Political officials, to establish their own legitimacy, may be forced to rethink the nature and content of future public policies.

In this process, external pressure may be the decisive factor. India is currently implementing a Structural Adjustment Programme sponsored by the IMF and the World Bank. In a letter to the President of the World Bank, Manmohan Singh, the Finance Minister of India, pledged to reduce the overall public deficit by imposing

³⁵ Many of the medical institutions in Kerala, including hospitals attached to medical colleges face very serious resource constraints. Very often, the hospitals have to ask patients to buy drugs on their own as the institutions do not have enough resources to meet all the requirements.

³⁶ The government's difficulties in meeting its commitments on staff salaries can be understood, when we observe that in 1989-90 as against a total tax revenue of Rs 12,040 million, the total salary and pension payments of government employees including government teachers, came to Rs 13,250 million. See Oommen M.A 1992. op cit.

Presumably, the shortfall is filled, as we indicated in Chapter II, by dipping into the government's capital funds.

fiscal discipline on the central and provincial governments.³⁷ One method of enforcing this discipline is the reduction in the generous overdraft facilities which provincial governments have with the Reserve Bank of India (RBI). The dislocation in the functioning of the treasury to which we have referred earlier is a product of the tighter fiscal policies initiated by the Government of India. The Malayala Manorama, one of Kerala's leading newspaper, reported that in January 1993, the RBI instructed commercial banks not to honour treasury cheques as the government had not cleared its overdraft with the RBI. The paper also reported that during the financial year 1992-93, the government had defaulted several times on its repayment to the RBI.³⁸ The latter's instructions not to honour government cheques were apparently a device to discipline the government.

The inability of the State to maintain the existing pattern of resource allocation is likely to alienate the dominant groups in the polity. While they will resist any policy initiative that reduces their relative position in the economy, the fiscal crisis of the State coupled with external pressure, may force State elites to initiate policies that promote economic efficiency.

We admit that these are optimistic assumptions. It may well be that societal pressures or traditional

³⁷ Letter dated 11/11/91 from Manmohan Singh, Finance Minister, Government of India to L T Preston, President of the World Bank. Quoted in the Hindustan Times, New Delhi. 27/2/92.

³⁸ The Malayala Manorama. 31/1/93.

patterns of rent-seeking behaviour are too strong for the initiation of any meaningful reform programme. However, we believe that among a small but significant section of State elites, the necessity for a fundamental reappraisal of current policies is being increasingly felt.³⁹ The collapse of the command economies of the former Soviet Union and other East European countries have raised questions about the efficacy of continuing the present policy framework. Moreover, the economic boom in the People's Republic of China has enhanced the appeal of free-market policies even among the members of the Communist parties. Whether this intellectual appreciation will be translated into a concrete reform programme is, of course, a matter of speculation.

³⁹ Young MLAs belonging to the Communist Party of India (Marxist), have admitted to the author they do not fully share the world view of their party leaders. Ministers in the previous Left Democratic Government have also informed the author that the priority of the Government in future should not be towards redistributive policies; rather policies should be devised to enhance the productivity of the economy.

APPENDIX I

List of Societies Selected for Intense Study

I TRIVANDRUM DISTRICT

- 1 Uchakkada Ksheera Ulpadaka Co-operative Society.
- 2 Kuzhiamvila Ksheera Ulpadaka Co-operative Society.
- 3 Vettinad Ksheera Ulpadaka Co-operative Society.
- 4 Palode Ksheera Ulpadaka Co-operative Society.
- 5 Chembakamangalam Ksheera Ulpadaka Co-operative Society.

II ERNAKULAM DISTRICT

- 1 Vengola Ksheera Ulpadaka Co-operative Society.
- 2 Puthenvelikkara Ksheera Ulpadaka Co-operative Society.
- 3 Puliyannam Ksheera Ulpadaka Co-operative Society.
- 4 Arikuzha Ksheera Ulpadaka Co-operative Society.
- 5 Needapara Ksheera Ulpadaka Co-operative Society.

III MALAPPURUM DISTRICT

- 1 Pullenchery Ksheerolpadaka Sahakarana Sangam.

- 2 Palemad Ksheerolpadaka Sahakarana Sangam.
- 3 Nilambur Town Ksheerolpadaka Sahakarana Sangam.
- 4 Karulai Ksheerolpadaka Sahakarana Sangam.
- 5 Kappil Karad Ksheerolpadaka Sahakarana Sangam.

IV KOZHIKODE DISTRICT

- 1 Palazi Ksheera Ulpadaka Co-operative Society.
- 2 Cheruvannor Ksheera Ulpadaka Co-operative Society.
- 3 Kuppayakode Ksheera Ulpadaka Co-operative Society.
- 4 Mathra Ksheera Ulpadaka Co-operative Society.
- 5 Vattoli Bazar Ksheera Vyavasaya Sahakarana Sangam.

APPENDIX II

QUESTIONNAIRE

(Translation from Malayalam)

Name of Society

Panchayat

I Basic Information

1. Name and address

2. Sex: a.M; b.F

3. Age:

4. Education: a. illiterate; b. completed primary education; c. completed secondary education; d. completed high school; e. studied in college

5. Main source of income: a. mainly from agriculture; b. from other sources

6. Occupation: a. agriculture; b. agricultural labourer; c. manual labourer; d. trade; e. organised sector; f. others

7. Milch animals owned a. animals in milk; b. dry animals; c. calves

8. Period engaged in dairying: a.less than a year; b.1 to 2 years; c.2.1 to 5 years; d.more than 5 years

9. Why did you start/carry on dairying? a.to get milk for household purposes; b.to get additional income; c.as a source of livelihood; d.others

10. Are you a member of the milk society? a.yes; b.no

11. If yes, why did you become a member? a.good price; b.surplus disposal; c.no other marketing outlet; d.supply of subsidised inputs; e.to get a loan; f.others

12. How long have you been a member? a.less than a year; b.1-2 years; c.2.1 to 5 years; d.don't know

13. Who persuaded you to become a member? a.neighbour/friend; b.family member; c.political leader; d.public man; e.milma/co-operative official; f.bank manager

14. If not a member, reasons for not joining: a.difference of opinion with the society leadership; b.cannot supply milk as per the bye-laws of the society; c.society rejected application; d.no benefits from joining; e.others

15. If your application has been rejected, the reasons: a.political reasons; b.unable to supply milk as per bye-laws; c.others

II Production and Sale of Milk

1. Total quantity of milk produced today (litres):

2. Disposal pattern (litres): a.neighbours; b.tea shop; c.vendor; d.society; e.others

3. Is the above pattern your usual one?

4. If not, the usual pattern: a.neighbours; b.tea shop; c.vendor; d.society; e.others

5. How often do you give milk to the society?

a.every day; b.occasionally; c.when there are no other outlets

6. Has the society ever refused to take your milk?

7. If yes, the reasons: a.poor quality of milk; b.society unable to handle excess milk; c.bandhs and public holidays; d.others

8. How many times
during the last 2
years, has the society
refused to take milk?

9. When compared to
last year, are you
giving the society
more or less milk?

10. If more, the
reasons: a.better price; b.more inputs from
the society; c.increased
production; d.less local demand;
e.greater pressure from society
officials; g.others

11. If less, the
reasons: a.poor price; b.poor supply of
inputs; c.reduced production;
d.increased local demand; e.others

12. Have you received
cattle feed from
Milma?

13. Is the supply of
cattle feed regular or
irregular?

14. Have you received
any other inputs from
the society?

15. Have you received a.yes; b.no
any veterinary
assistance from the
society/union?

16. What is your a.very good; b.satisfactory;
opinion of the c.poor
veterinary care of the
union?

III Economics of Milk Production

1. When compared to a.satisfactory; b.unsatisfactory
the prevailing prices
in the area, the price
given by the society
is:

2. When compared to a.satisfactory; b.unsatisfactory
production cost, the
price given by the
society is:

3. If price received is a.no other marketing outlet;
unsatisfactory, why do b.surplus disposal; c.inputs;
you still give milk to d.soft loans; e.others
the society?

4.Are you optimistic a.yes; b.no
about the future of
dairying?

5.By joining the a.yes; b.no; c.don't know
society have you
earned any additional
income?

6.do you expect to a.yes; b.no; d.don't know
earn more money
through the activities
of the society?

**IV Farmers'
Perceptions about the
Programme**

1.Can you name the a.yes; b.no
President of your
society?

2.Can you name the a.more than one name; b.one name;
Chairman and the c.unable to name any
Directors of your
regional union?

3.The society' a.always; b.most of the time;
leadership is honest c.occasionally; d.never; e.don't
in its dealings. know

4.The regional union's leadership is honest in its dealings. a.always; b. most of the time; c. occasionally; d.never; e.don't know

5.Compared to last year, the society is functioning better this year. a.yes; b.no; c.don't know

6.Compared to last year, the regional union is functioning better this year. a.yes; b.no; c.don't know

7.Has the society given you all the services that you expected? a.yes; b.some of them;c.no; d.don't know

8.Which services have you not received? a.good price; b.inputs; c.stable markets; d.others

9."Milma" officials are more accessible and willing to solve your problems than government officials. a.agree; b.disagree; c.don't know

10."Milma" is a co- a.agree; b.disagree; c.don't know
operative in name
only;actually it is a
government department.

11.How many times have a.always; b.occasionally; c.don't
you gone for a society know
meeting?

12.The co-operative a.agree; b.disagree; c.don't know
movement in the dairy
sector is over-
politicised.

13.Elections to the a.agree; b.disagree; c.don't know
societies and regional
unions should not be
on the basis of party
politics

APPENDIX III

List of Individuals Interviewed

I Presidents of

Primary Societies

Name	Society	Date
1.Sreedharan	Palode	1/6/91
2.Vettinad Sasi	Vettinad	1/6/91
3.Rajendran	Uchakkada	2/6/91
4.Sundaran Nadar	Kuzhiamvila	2/6/91
5.Muraleedharan Nair	Chembakamangalam	2/6/91
6.C.Cherooty	Mathra	10/6/91
7.Chathukutty	Kuppayakode	11/6/91
8.K.K.Gangadharan	Vattoli Bazar	11/6/91
9.T.N George	Palemad	13/6/91
10.Abraham Varghese	Kappil Karad	13/6/91
11.Eso John	Pullenchery	14/6/91
12.T.P Thankachan	Karulai	14/6/91
13.T.G Mathew	Nilambur Town	14/6/91
14.M.Ali	Cheruvannor	15/6/91

15.E.V.Narayanan	Vengola	17/6/91
16.P.C George	Needappara	18/6/91
17.T.M Domnic	Arikuza	18/6/91
18.Gopinathan Nair	Puliyannam	19/6/91
19.V.K Dharman	Puthenvelikkara	19/6/91

II REGIONAL UNIONS

Name	Designation	Date
1.Nanniode Rajan	Chairman,TRCMPU	27/5/91
2.Karumadi Murali	Director,TRCMPU	27/5/91
3.K.Sashidharan	Director,TRCMPU	25/5/91
4.K.P.P Kurup	M.D, TRCMPU	25/5/91
5.Dr.Jayachandran	Assistant Manager,TRCMPU	25/5/91
6.Jayakrishnan Nair	Marketing Officer,TRCMPU	25/5/91
7.Kunju Kunju	Director,ERCMPU	20/6/91
8.Parmeswaran Pillai	Director,ERCMPU	20/6/91
9.N.N Mangalam	Director,ERCMPU	20/6/91
10.A.M Poulose	Director,ERCMPU	20/6/91

11.P.K Joseph	Former Director, CMS	25/4/91
	Union	
12.P.M George	Former Director,CMS	25/4/91
	Union	
13.M.Chathu	Former President, CMS	24/4/91
	Union	
14.P.S Abraham	Former President, CMS	24/4/91
	Union	
15.K.P Raman Nair	Former President,CMS	24/4/91
	Union	
16.E.N Kidavu	Former Secretary, CMS	24/4/91
	Union	

III MISCELLANEOUS

1.T.T Jacob	General Manager,	3/4/91
	Tamilnadu Dairy	
	Federation	
2.Adimoolam	Manager, Tamilnadu	2/4/91
	Dairy Federation	
3.V.Ramachandran	Former Chief	2/4/91
	Secretary, Government	
	of Kerala	
4.N.V Navithan	Senior Executive,	3/4/91
	NDDB	
5.Chellappa	Executive, NDDB	3/4/91

6.Myleswamy	Manager,KCMMF	6/6/91
7.Ramachandran Pillai	Director, Department of Dairy Development. Kerala	19/3/91
8.V.S Hebber	Senior Executive, NDDB	18/4/91
9.Sudip Roy	Senior Executive, NDDB	18/4/91
10.V.S Bhela	M.D Hindustan Packaging Company	23/7/91
11. Dr: V.Kurien	Chairman, NDDB	22/7/91
12.S.Balakrishnan	Centre for Management Development. Trivandrum	2/8/91

APPENDIX IV

EXCHANGE RATES: 1980-93

Rs. per U.S. Dollar

<u>Year</u>	<u>Rate</u>
1980	7.89
1981	7.93
1982	9.63
1983	10.31
1984	11.89
1985	12.24
1986	12.79
1987	12.97
1988	14.48
1989	16.66
1990	17.27
1991	19.63
1992	29.07
1993	31.16

Source: 1. 1980-1989: "Indian Petroleum & Natural Gas Statistics: 1909-91". Ministry of Petroleum & Natural Gas. Government of India. New Delhi. 1991.

2. 1990-1993: Bank of Baroda. U.K

BIBLIOGRAPHY

PRIMARY DATA

I Government of Kerala.

- 1) "Study on Development Administration in Kerala State". State Planning Board. Trivandrum. 1980.
- 2) "A Review of Public Enterprises in Kerala". Issues: 1980-82 and 1989-90. Bureau of Public Enterprises. Trivandrum.
- 3) "A Report on the Study of Pricing of Milk". Centre for Management Development. Trivandrum. 1988.
- 4) "Administration Report". Department of Dairy Development. Issues: 1962-63 to 1988-89. Government of Kerala.
- 5) "Agreement Between the Government of Kerala and the Indian Dairy Corporation". Government Order (P) No: 183/79/AD dated 27/4/1979. Trivandrum.
- 6) "Annual Report". The Kerala State Coconut Development Corporation. Trivandrum. Issues: 1975-76 to 1989-90.
- 7) "Annual Report". The Kerala Livestock Development and Milk Marketing Board. Trivandrum. Issues: 1985-86 and 1989-90.
- 8) "Assembly Elections Since 1951. Department of Public Relations. Trivandrum. No Date.

9) "Basic Economic Data Relating to the Sixth Five Year Plan: 1978-83". State Planning Board. Trivandrum. No Date.

10) "Bulletin of Animal Husbandry Statistics: 1986". Department of Animal Husbandry. Trivandrum. 1988.

11) "Economic Review": Issues relating to 1970, 1979, 1981, 1984, 1985, 1987, 1988, 1989, 1990. State Planning Board. Trivandrum.

12) "Fourth Five Year Plan: 1969-74". State Planning Board. Trivandrum. No Date.

13) "Governor's Address to the Legislative Assembly". Issues: 1958 to 1990. Legislative Secretariat. Trivandrum.

14) "Interim Report of the Committee for the Periodic Evaluation of Livestock Breeding and Formulation and Modification of the Breeding Policies of the State". Directorate of Animal Husbandry. Trivandrum. 1988.

15) "Kerala at a Glance". Bureau of Economics and Statistics. Trivandrum. 1991.

16) "Kerala Budget in Brief". Issues: 1979-80 and 1991-92. Finance Department. Secretariat. Trivandrum.

17) "Kerala Agricultural Marketing Project". Project Preparation and Monitoring cell. Trivandrum. 1985.

18) "Lokh Sabha Election Reportage Since 1952". Department of Public Relations. Trivandrum. 1990

19) "North Kerala Dairy Project: Milk Flow Study". Centre for Management Development. Trivandrum. 1990

20) "North Kerala Dairy Project: Strategy for Dairy Co-operative Formation and Milk Procurement". Centre for Management Development. Trivandrum. No Date.

21) "Price: Manual of Instructions and Procedures". Bureau of Economics and Statistics. Trivandrum. No Date.

22) "Proceedings of the Fourth Kerala Legislative Assembly: 1970-73". Legislative Secretariat. Trivandrum.

23) "Progress in Two Decades: 1956-57 to 1976-77". Bureau of Economics and Statistics. Trivandrum. 1977.

24) "Report on the State Domestic Product of Kerala: 1980-81 to 1987-88". Bureau of Economics and Statistics. Trivandrum. 1990.

25) "Report on Economic Census: 19802". Bureau of Economics and Statistics. Trivandrum. 1987.

26) "Report on the Sample Survey for Estimation of Production of Milk, Egg and Meat for the Period: 1977-78 to 1984-85". Directorate of Animal Husbandry. Trivandrum. 1987.

27) "Report of the Fourteenth Quinquennial Livestock census- 1987". Department of Animal Husbandry. Trivandrum. 1989.

28) "Report of the Committee on Milk Pricing". Agriculture (Dairy) Department Secretariat. Trivandrum. 1991.

29) "Report of the Survey on Unemployment in Kerala". Bureau of Economics and Statistics. Trivandrum. 1988.

30) "Report of the Survey on the Utilization of Gulf Remittances in Kerala". Bureau of Economics and Statistics. Trivandrum. 1987.

31) "Report of the High Level Committee on Industry, Trade and Power". State Planning Board. Trivandrum. 1984

32) "Report on the Study on Cost of Production of Milk in Kerala:1984-87". Directorate of Animal Husbandry. Trivandrum. 1990.

33) "Selected Indicators of Development : Kerala and India, 1961 to 1986". Bureau of Economics and Statistics. 1989.

34) "Seventh Five Year Plan: 1988-90". State Planning Board. Trivandrum. No Date.

35) "State Plan Expenditure: 1951-80". Data Bank. State Planning Board. Trivandrum. No Date.

36) "Statistics for Planning. Issues: 1972 and 1988". Bureau of Economics and Statistics. Trivandrum.

37) "The Third Decennial World Census of Agriculture: 1970-71". Report for Kerala State. Vol:I". Agricultural Census Division. Bureau of Economics and Statistics. Trivandrum.

38) "Towards An Approach to Kerala's Eighth Five Year Plan". State Planning board. Trivandrum.1989.

II Government of India

1) "Census of India. 1991. Provisional Population Totals. Paper I". Director of Census Operations. Kerala. 1992.

2) "Economic Survey". Various Issues. Ministry of Finance. New Delhi.

3) "Report of the Evaluation Committee on Operation Flood II". Ministry of Agriculture. New Delhi. 1985.

4) "Report of the Sub Committee of the Technical Committee of Direction for Improvement of Animal Husbandry and Dairying Statistics". Various Issues. Ministry of Agriculture. New Delhi.

5) "Report of the National Commission on Agriculture". Ministry of Agriculture. Government of India. New Delhi. 1976.

III National Dairy Development Board.(NDDB)

1) "A Rapid Survey of Declining Milk Procurement in the South". NDDB. Anand. 1992.

2) "A Rapid Study on Declining Milk Procurement in Bulandsher Union". NDDB. Anand. 1992.

3) "A Quick Survey of Declining Milk Procurement in Madhya Pradesh". NDDB. Anand. 1992.

4) "Analytical Report on Progress of Operation Flood in the Southern Region". NDDB. Anand. 1988.

5) "Dairy Development Projects for the Districts of Trivandrum, Quilon and Alleppey- Kerala". NDDB. Anand. 1976.

6) "Kerala Dairy Development Project Under Operation Flood II". Indian Dairy Corporation. Baroda. 1979.

7) "Milk Marketing by Kerala Co-operative Milk Marketing Federation Ltd: A Study". NDDB. Bangalore. No Date.

8) "Monthly Progress Report on Operation Flood". NDDB. Anand. December.1988.

9) "National Dairy Development Project : Phase II.1987-92". NDDB. Anand. 1986.

- 10) "Operation Flood II in Kerala: A Mid Course Correction Report". NDDB. Anand. 1985.
- 11) "Operation Flood: Phase III". NDDB. Anand. 1985.
- 12) "Operation Flood II : Sub-project Detailing". NDDB. Anand. No Date.
- 13) "Quarterly Progress Report on Operation Flood". NDDB. Anand. October-December 1990.
- 14) "Swiss Aided Dairy Project in Cannanore Milk Shed". NDDB. Anand. 1980.
- 15) "Technology Mission for Dairy Development". NDDB. Anand. 1988.

IV Kerala Co-operatives

- 1) "Administration Report". The Calicut Co-operative Milk Supply Union. Issues: 1940-41 to 1988-89. Calicut.
- 2) "Administration Report". The Malappurum District Co-operative Milk Supply Union. Issues: 1961-62 to 1988-89. Nilambur.
- 3) "Administration Report". The Edakkad Ksheera Vyavasaya Shakarana Sangam. Issue: 1989-90. Calicut.
- 4) Bye-laws of the Kerala Kera Karshaka Shakarana Federation Ltd. Trivandrum. No Date.
- 5) Bye-laws of the Kerala Co-operative Milk Marketing Federation Ltd. Trivandrum. No date.
- 6) Bye-laws of the Trivandrum Regional Co-operative Milk Producer's Union Ltd. Trivandrum. No Date.

- 7) Bye-laws of the Kerala State Co-operative Rubber Marketing Federation Ltd. Cochin. 1971.
- 8) Bye-laws of the Ernakulam Regional Co-operative Milk Producer's Union Ltd. Ernakulam. No Date.
- 9) Bye-laws of the Kerala State Co-operative Marketing Federation Ltd. Cochin. No Date.
- 10) Bye-laws of the Malabar Regional Co-operative Milk Producer's Union Ltd. Calicut. No Date.
- 11) Bye-laws of the Calicut Co-operative Milk Supply Union Ltd. Calicut. No Date.
- 13) "Milk Availability Study". KCMMF. Trivandrum. 1991.
- 14) "Project Proposal for a Milk Powder Plant in Kerala State". KCMMF. Trivandrum. 1988.
- 15) The Travancore Co-operative Journal. February 1929 & April 1930.
- 16) The Kerala Co-operative Journal. Issues: December 1959, December 1962, May 1963, January 1965 and February 1971.

V Data From Other Sources.

- 1) "Base Line Study of Operation Flood Areas: 1988-89". National Council of Applied Economic Research. Draft Report. New Delhi. 1991.
- 2) "Dairy Development in Quilon District: An Ex Post Evaluation Study". National Bank for Agricultural and Rural Development. Bombay. 1987.
- 3) "Draft Project Report". KERAfed. Trivandrum. 1985.

- 4) "Proceedings of the Top Management Seminar". Institute of Rural Management. Anand. 1985.
- 5) "Proceedings". The National Seminar on Dairy Development as an Instrument for Socio-Economic Growth: The Kerala Experience. Trivandrum. 1990.
- 6) "Proceedings of the State Dairy Seminar". Souvenir. Kerala Milk Societies Association. Quilon. 1983.
- 7) "Report of the Appraisal Mission on Integrated Coconut Development Project". College of Agricultural Banking. Reserve Bank of India. Bombay. No Date.
- 8) "Review of Activities". MATSYAFED. Trivandrum. 1991.
- 9) "Staff Appraisal Report: India. Second National Dairy Project". No: 6897 IN. World Bank. Washington. 1987.

VI Press Reports

- 1) The Malayala Manorama: Kottayam. Kerala. 30/4/1991
- 2) The Malayala Manorama: Kottayam. Kerala. 3/10/1991
- 3) The Malayala Manorama: Kottayam. Kerala. 5/10/1991
- 4) The Malayala Manorama: Kottayam. Kerala. 31/1/1993
- 5) The Hindu Madras. 11/3/1986
- 6) The Hindustan Times New Delhi. 27/2/1992

Secondary Sources

I Working Papers, Pamphlets and Theses

- 1) Bardhan P: "Operation Flood: Its Evolution, the Strategy Followed and Progress Achieved". Unpublished Paper. NDDB. Anand. No Date.
- 2) Gelb A et al: "Development of a Milk Grid System for India". NDDB. Anand. 1976.
- 3) George P.S & Mukherjee C.: "Rice Economy of Kerala: A Disaggregate Analysis of Performance". Working Paper No: 213. Centre for Development Studies. Trivandrum. 1986.
- 4) George P.S. & Nair K.N.: "A Study on Cattle Holdings in Kerala. Draft Report". Centre for Development Studies. Trivandrum. 1988.
- 5) Gertsch L: "The National Dairy Development Board of India and Corporatism: The Politics of Policy Making". Working Paper No: 71. Institute of Social Studies. The Hague. 1990.
- 6) Gincy G. et al: "Farm Level Case Study. A Multi disciplinary Field Level Research on Cattle Holdings in Six Villages in Kerala". The GUIZ. (Department of Geography, Zurich University) Trivandrum and Zurich 1988.
- 7) Jayasankar N P: "Problems and Prospects of Coconut in Kerala". Workshop on Agricultural Development. Trivandrum. 6/10/1988.
- 8) Kannan K.P & Pushpangadan K: "Agricultural Stagnation and Economic Growth in Kerala: An Exploratory Analysis". Working Paper No:227. Centre for Development Studies. Trivandrum. 1989.

9) Kurien V: "Achieving Professor Kane's Dream". Professor Kane Memorial Lecture. (Pamphlet) Anand. 1987.

10) Kurien V: "Opposition to Change: The Anand pattern. A Case Study". (Pamphlet) Indo-Canadian Institute. New Delhi. 1988.

11) Kurien J. & Achari T.T.R: "On Ruining the Commons and the Commoner: The Political Economy of Over Fishing". Working Paper. No:232. Centre for Development Studies. 1989.

12) Lele U. J & Christianson R.E: "Markets, Marketing Boards and Co-operatives in Africa. Issues in Adjustment Policy". (MADIA Discussion Paper, No: 11) Washington D.C: World Bank. 1989.

13) Nair K.N.: "Bovine Holdings in Kerala. An Analysis of Factors Governing Demand and Supply". Phd Thesis. University of Kerala. Trivandrum. 1981.

14) Nair K.N Dhas A.C.: "Social Implications of the Commercialisation of Milk Production in India". Centre for Development Studies. Trivandrum. No Date.

15) Nair T. S: "Cross Breeding Technology and Dairy Development: The Kerala Experience". Unpublished M Phil Thesis. Jawaharlal Nehru University. New Delhi. 1988

16) Narayana D: "Agricultural Economy of Kerala in the Post-Seventies: Stagnation or Cycles?". Working Paper No:235. Centre for Development Studies. Trivandrum. 1990.

17) Pillai P. M.: "Some Aspects of the Performance of State Sector Enterprises in Kerala". Working Paper No:234. Centre for Development Studies. Trivandrum. 1990.

18) Prakash B.A: "Agricultural Development of Kerala: From 1800 to 1980 AD. A Survey of Studies". Working Paper No:220. Centre for Development Studies. Trivandrum. 1987.

19) Prakash B.A: "Educated Unemployment in Kerala: Some Observations Based on a Field Study". Working Paper No: 224. Centre for Development Studies. Trivandrum. 1988.

20) Prakash B.A: "Unemployment in Kerala: An Analysis of Economic Causes". Working Paper No:231. Centre for Development Studies. Trivandrum. 1989.

21) Raj K. N: "Some Observations on Economic Growth in India Over the Period :1952-53 to 1982-832. Working Paper No:198. Centre for Development Studies. Trivandrum. 1984.

22) Rajagopalan. V.: "The Handloom Industry in South and North Kerala. A Study of Production and Marketing Structures". Unpublished M Phil Thesis. Jawaharlal Nehru University. New Delhi. 1986.

23) Salim A.M & Nair G: "Irrigation and Water Management in Kerala". Workshop on Agricultural Development . Trivandrum. 6/10/1988.

24) Shivanandan P.K: "Milk Production in Kerala. An Analysis in the Context of Operation Flood II". Centre for Development Studies. 1983.

25) Subrahmanian K.K & Pillai P.M: "Kerala's Industrial Backwardness: An Exploration of Alternative Hypothesis". Working Paper No: 210. Centre for Development Studies. Trivandrum. 1985.

26) Suseelan P: "Problems and Prospects for Rice in Kerala". Workshop on Agricultural Development. Trivandrum. 6/10/1988.

27) Vettivel S: "People's Participation in Dairy Co-operatives. A Case Study of a Milk Producer's Co-operative in Southern Kerala- India". Swiss Development Corporation. New Delhi. 1989.

28) Walshe M.J et al: "Dairy Development in Sub-Saharan Africa: A Study of Issues and Options". World Bank Technical Paper No: 135. Washington D.C: World Bank. 1991.

II ARTICLES

- 1) Achaya K. T & Huria V. K: Rural Poverty and Operation Flood. Economic and Political Weekly. Vol: XXI. No: 37. 1986.
- 2) Alavi H: The State in Post Colonial Societies- Pakistan and Bangladesh. New Left Review. No: 74. 1972.
- 3) Albin A: Manufacturing Sector in Kerala: Comparative Study of its Growth and Structure. Economic and Political Weekly. Vol: XXV. No: 37. 1990.
- 4) Alexander K.C: Emergence of Peasant Organisations in South India. Economic and Political Weekly. Review of Agriculture. Vol: XV. No: 26. 1980.
- 5) Attwood D.W & Baviskar B.S.: Why do Some Co-operatives Work, but not others? :A Comparative Analysis of Sugar Co-operatives in India. Economic and Political Weekly. Review of Agriculture. Vol XXII. No: 26. 1987.

6) Bardhan P: The Third Dominant Class. Economic and Political Weekly. Vol: XXIV. No:3. 1989.

7) Barua S: State and Industrialisation: Political Economy of Sugar Policy. 1932-47. Economic and Political Weekly. Review of Political Economy. Vol: XVIII. No: 5. 1983.

8) Bates R.H.: The Politics of Agricultural Policy- A Reply. IDS Bulletin. Vol: XVII. No: 1. 1986.

9) Baviskar. B.S & George.S.: Development and Controversy: NDDB. Economic and Political Weekly. Review of Agriculture. Vol:XXIII. No:13. 1988.

10) Bhat M.P.N & Rajan I.S.: Demographic Transition in Kerala Revisited. Economic and Political Weekly. Vol: XXV. Nos: 35 and 36. 1990.

11) Bienefeld M.: Analysing the Politics of African State Policy: Some Thoughts on Robert Bates' Work. IDS Bulletin. January 1986. Vol: XVII No: 1. January, 1986.

12) Bowonder B et al: Further Evidence on the Impact of Dairy Development Programme. Economic and Political Weekly. Review of Agriculture. Vol: XXII. No:13. 1987.

13) Brett E.A.: State Power and Economic Inefficiency: Explaining Political Failure in Africa. IDS Bulletin. Vol: XVII. No: 1. 1986.

14) Chai A.S.: The Three Dimension State. IDS Bulletin. Vol:21 No: 4. 1990.

15) Dearlove J.: Economists on the State. IDS Bulletin. Vol: XVIII No: 3. 1987.

16) Ellis F.: Relative Agricultural Prices and the Urban Bias Model: A Comparative Analysis of Tanzania and Fiji. The Journal of Development Studies. Vol: XX No: 3. 1984.

17) George J.: White Revolution in India: Myth or Reality. Economic and Political Weekly. Vol:XXI. No:49. 1986.

18) George K.: Kerala's Fiscal Crisis: A Diagnosis. Economic and Political Weekly. Vol: XXV. No:37. 1990.

19) George S.: Diffusing Anand. Implications of Establishing A Dairy Co-operative in a Village in Central Kerala. Economic and Political Weekly. Vol: XIX. Nos: 51 and 52. 1984.

20) George. S.: Operation Flood and Rural India: Vested and Divested Interests. Economic and Political Weekly. Vol: XX. No: 49. 1985.

21) George S: Faulty Lactometers: Village Level Evaluations of Operation Flood. Economic and Political Weekly. Vol:XXI Nos: 22 and 23. 1986.

22) George S: Stemming Operation Flood: Towards an Alternative Dairy Policy for India. Economic and Political Weekly. Vol: XXII. No: 39. 1987.

23) George T.K et al: Role of Government and Structural Changes in Rubber Plantation Industry. Economic and Political Weekly. Review of Industry and Management. Vol:XXIII. No:48. 1988.

24) Gephart M: African States and Agriculture: Issues for Research. IDS Bulletin. Vol: XVII. No: 1 1986.

25) Gopikuttan. G: House Construction Boom in Kerala: Impact on Economy and Society. Economic and Political Weekly. Vol: XXV. No: 37. 1990.

26) Gulati A.& Sharma P.K: Government Intervention in Agricultural Markets: Nature, Impact and Implication. Journal of Indian School of Political Economy. Vol: III. No: 2. 1991.

27) Harriss J: The State in Retreat ? Why has India Experienced Such Half-Hearted Liberalisation in the 1980s. IDS Bulletin. Vol: XVII. No:4. 1987.

28) Harriss B & Harriss.J: 'Generative' or 'Parasitic' Urbanism ?. Some Observations from the Recent History of a South Indian Market Town. The Journal of Development Studies. Vol:XX. No: 3. 1984.

29) Huria V K & Achaya K.T: Dairy Development in India: Some Critical Issues. Economic and Political Weekly. Vol: XV. Nos: 45 & 46. 1980.

30) Isaac T.M.T: Class Struggle and Structural Changes: Coir Mat and Matting Industry in Kerala: 1950-1980. Economic and Political Weekly. Review of Political Economy. Vol: XVII. No: 31. 1982.

31) Isaac T.M.T & Kumar S.M: Kerala Elections, 1991: Lessons and Non Lessons. Economic and Political Weekly. Vol:XXVI. No: 47. 1991.

32) Kannan K.P: Kerala Economy at the Crossroads?.
Economic and Political Weekly. Vol: XXV. Nos: 35 and 36.
1990.

33) Kannan K.P & Pushpangadan.K: Dissecting
Agricultural Stagnation in Kerala: An Analysis Across
Crops, Seasons and Regions. Economic and Political Weekly.
Vol:XXV. Nos: 35 and 36. 1990.

34) Kohli A: Politics of Economic Liberalization in
India. World Development. Vol: XVII. No: 3. 1989.

35) Krishnaji N: Agrarian Relations and the Left
Movement in Kerala: A Note on Recent Trends. Economic and
Political Weekly. Vol: XIV. No: 9. 1979.

36) Krishnan T.N: Demographic Transition in Kerala:
Facts and Factors. Economic and Political Weekly. Special
Number. Vol: XI. No: 31, 32 and 33. 1976.

37) Krueger A. O: The Political Economy of the Rent
Seeking Society. The American Economic Review. Vol: LXIV.
No: 3. 1974.

38) Kurien C.T: Vindication of Growth with
Redistribution? Economic and Political Weekly. Review
Article. Vol:XI. No:34. 1976.

39) Kurien C.T: State and Market in Economic
Processes: Some Basic Issues. Economic and Political
Weekly. Special Number. Vol: XXIII. No: 19, 20 and 21.
1987.

40) Kurien J & Achari T.T.R: Over Fishing Along
Kerala's Coast: Causes and Consequences. Economic and
Political Weekly. Vol:XXV. Nos: 35 and 36. 1990.

41) Lee U: Co-operatives and the Poor: A Comparative perspective. World Development. Vol:IX. No: 1. 1981.

42) Lee K & Lee H. Y: States, Markets and Economic Development in East Asian Capitalism and Socialism. Development Policy Review . Vol: X No: 2. 1992.

43) Liddle W.R: The Politics of Development Policy. World Development. Vol: XX. No:6. 1992.

44) Lieten G.K: Progressive State Governments: An Assessment of the First Communist Ministry in Kerala. Economic and Political Weekly. Vol:XIV No: 1. 1979.

45) Lipton M: Urban Bias Revisited. The Journal of Development Studies. Vol: XX. No: 3. 1984.

46) Mars T.: State and Agriculture in Africa: A Case of Means and Ends. IDS Bulletin. Vol: XVII. No: 1. 1986.

47) Mars T: Developmental States and African Agriculture: An editorial Postscript. IDS Bulletin. Vol: XVII. No: 1.1986.

48) Mencher J.P: The Lessons and Non Lessons of Kerala: Agricultural Labourers and Poverty. Economic and Political Weekly. Special Number.Vol: XV. Nos: 41, 42 and 43. 1980.

49) Mencher J.P: Agrarian Relations in Two Rice Regions of Kerala. Economic and Political Weekly. Annual Number. Vol: XIII. No: 6 and 7. 1978.

50) Miliband R: State Power and Class Interests. New Left Review. No: 138. 1983.

51) Minhas B. S: Leadership, Public Policy and Socio Economic Development. Economic and Political Weekly. Vol: XXIII. No:37. 1988.

52) Mitra S.K: Democracy and Political Change in India. The Journal of Commonwealth and Comparative Politics. Vol: XXX. No: 1. 1992.

53) Moore M: Political Economy and the Rural Urban Divide: 1767-1981. The Journal of Development Studies. Vol: XX No: 3. 1984.

54) Moore M: Categorising Space: Urban-Rural or Core-Periphery in Sri Lanka. The Journal of Development Studies. Vol: XX No: 3. 1984.

55) Moore M: Institutional Development, the World Bank, and India's New Agricultural Extension Programme. The Journal of Development Studies. Vol: XX. No: 4. 1984.

56) Moore M: Retreat from Democracy in Sri Lanka?. The Journal of Commonwealth and Comparative Politics. Vol: XXX. No:1. 1992.

57) Mukherjee A: Indian Capitalist Class and Congress on National Planning and Public Sector: 1930-47. Economic and Political Weekly. Vol: XIII. No:35. 1978.

58) Nair.K N: Milk Production Trends in Kerala: Trends and Prospects. Economic and Political Weekly. Review of Agriculture. Vol: XIV Nos: 12 and 13. 1979.

59) Nair K.N & Jackson M.G: Alternative to Operation Flood II Strategy. Economic and Political Weekly. Review Article. Vol:XVI.No:52. 1981.

60) Nair K.N: Technological Change in Milk Production with Reference to South Asia. Economic and Political Weekly. Review of Agriculture. Vol: XVII. No:13. 1982.

61) Nair K. N: White Revolution in India: Some Facts and Issues. Economic and Political Weekly. Review of Agriculture. Vol: XX. Nos 25 and 26. 1985.

62) Nair K.N: Cattle Development in Kerala: Trends and Prospects. Economic and Political Weekly. Vol:XXV. Nos: 35 and 36. 1990.

63) Nayar B.R: The Politics of Economic Restructuring in India: The paradox of State Strength and Policy Weakness. The Journal of Commonwealth and Comparative Politics. Vol: XXX No: 2. 1992.

64) Ninan K.N: Small Farmers and Commodity Market: An Analysis of Market Participation and Price Discrimination. Economic and Political Weekly. Review of Agriculture Vol: XXIII. Nos: 52 and 53. 1988.

65) Oommen M.A: Mobility of Small Scale Entrepreneurs : A Kerala Experience. Indian Journal of Industrial Relations. Vol: XVII. No: 1. July, 1981.

66) Oommen M.A: Development Experience, Development Priorities and Fiscal Resources of Kerala. People and Development. Supplement. No:3 . 1992.

67) Padmanabhan N: Poor Performance of Private Corporate Sector in Kerala. Economic and Political Weekly. Vol: XXV. No: 37. 1990.

68) Panikulangara V: Paddy Procurement Through Producer Levy: A Case Study of Kerala. Social Scientist. Vol:IV. No:8. 1976.

69) Parameswaran M P: Kerala's Power Predicament: Issues and Solutions. Economic and Political Weekly. Vol: XXV. No: 37. 1990.

70) Parthasarathy G: White Revolution, Dairy Co-operatives and Weaker Sections. Economic and Political Weekly. Review of Agriculture. Vol:XXVI. No:52. 1991.

71) Pedersen J.D: State, Bureaucracy and Change in India. The Journal of Development Studies. Vol: XXVIII No:4. July, 1992.

72) Pillai M P: Whither State Sector Enterprises in Kerala? Economic and Political Weekly. Review of Industry and Management. Vol: XXV Nos: 7 and 8. 1990.

73) Prager J: Is Privatization a Panacea for LDCs ?. Market Failure Versus Public Sector Failure. The Journal of Developing Areas. Vol: XXVI. No: 3. 1992.

74) Radhakrishnan P: Land Reforms in Theory and Practice: The Kerala Experience. Economic and Political Weekly. Review of Agriculture. Vol: XVI. No: 52. 1980.

75) Raj K.N: The Politics and Economics of Intermediate Regimes. Economic and Political Weekly. Vol: VIII. No: 27. 1973.

76) Rudra A: Emergence of the Intelligentsia as a Ruling Class in India. Economic and Political Weekly. Vol: XXIV. No:3. 1989.

77) Sambrani S & Garg P.K: Brave New World of Young Indian Decision Making Elites. Economic and Political Weekly. Review of Management. Vol: XIV. No: 34. 1979.

78) Shah T et al: Impact of Increased Dairy Productivity on Farmers' Use of Feedstuffs. Economic and Political Weekly. Vol: XV. No: 33. 1980.

79) Shapiro H & Taylor L: The State and Industrial Strategy. World Development. Vol: XVIII No: 6. 1990

80) Shiva Kumar A.K: UNDP's Human Development Index: A Computation for Indian States. Economic and Political Weekly. Vol: XXVI. No: 41. 1991.

81) Singh S: Operation Flood II: Some Constraints and Implications. Economic and Political Weekly. Vol: XIV No: 42 and 43. 1979.

82) Singh S & Sharma R.K: Some Implications of Area Choice in the Operation Flood II Programme. Economic and Political Weekly. Review of Agriculture. Vol: XVI No: 13. 1981.

83) Singh S & Singh K: Import of Donated Commodities, Export of Feed: New Technology of Milk production. Economic and Political Weekly. Vol:XX. No:29. 1985.

84) Somjee A.H: The Techno-Managerial and Politico-Managerial Classes in a milk Co-operative of India. Journal of Asian and African Studies. Vol: XVII No: 1-2. 1982.

85) Sreekumar T.T: Neither Rural nor Urban: Spatial Formation and Development Process. Economic and Political Weekly. Vol:XXV. Nos: 35 and 36. 1990.

86) Srinivasan T.N: Neo-Classical Political Economy, the State and Economic Development. Asian Development Review, Studies of Asian and Pacific Economic Issues. Vol: III No: 2. 1985.

87) Subrahmanian K.K & Pillai M.P: Kerala's Industrial Backwardness: Exploration of Alternative Hypotheses. Economic and Political Weekly. Vol:XXI. No: 4. 1986.

88) Subrahmanian K K: Development Paradox in Kerala: Analysis of Industrial Stagnation . Economic and Political Weekly. Vol: XXV. No: 37. 1990.

89) Subramanian V: Administrators and Politicians: Emerging Relations. Economic and Political Weekly. Vol: XII No 48. 1977.

90) Sunny K.P: Uneven Development of Kerala's Transport System: Some Economic Aspects. Economic and Political Weekly. Vol:XXV No 37. 1990.

91) Taylor D: Parties, Elections and Democracy in Pakistan. The Journal of Commonwealth and Comparative Politics. Vol: XXX. No:1. 1992.

92) Thamby M: Wage-Cost and Kerala's Industrial Stagnation: Study of Organised Small Scale Sector. Economic and Political Weekly. Vol: XXV. No: 37. 1990.

93) Tharakan M.P.K: Behaviour of Communal Votes in Kerala Assembly Elections.1987. Religion and Society. Vol: XXXV No:4 December 1988.

94) Toye J: Political Economy and the Analysis of Indian Development. Modern Asian Studies. Vol: 22. No:1 1988.

95) Wade R: The System of Administrative and Political Corruption : Canal Irrigation in South India. The Journal of Development Studies. Vol: XVIII. No:3. 1982.

96) Wade R: The Market for Public Office: Why the Indian State is not Better at Development. World Development. Vol: XIII. No: 4. 1985.

97) White G: Developmental States and African Agriculture: An Editorial Preface. IDS Bulletin. Vol: XVII No: 1. January. 1986.

III Books

1) Alderman H: Co-operative Dairy Development in Karnataka, India: An Assessment. Research Report. No: 64. Washington. D.C: International Food Policy Research Institute. 1987.

2) Alt J.E & Chrystal A.K: Political Economics. Brighton: Wheatsheaf. 1983.

3) Alvares. C ed: Another Revolution Fails: An Investigation into How and Why India's Operation Flood Project, Touted as the World's Largest Dairy Development

Programme, Funded by EEC, Went off the Rails. Delhi:
Ajanta. 1985.

4) Appelbaum R.P& Henderson J ed: States and Development in the Asian Pacific Rim. Newbury Park, California: Sage Publications. 1992.

5) Attwood D.W et al ed: Power and Poverty: Development and Development Projects in the Third World. Boulder: Westview. 1988.

6) Attwood D.W & Baviskar B.S: Who Shares ?: Co-operatives and Rural Development. Delhi: OUP. 1988.

7) Bardhan P: The Political Economy of Development in India. Oxford: Basil Blackwell. 1984.

9) Bates. R.H: Markets and States in Tropical Africa: The Political Basis of Agricultural Policies. Berkeley, California: University of California Press. 1981.

10) Bates R. H: Essays on the Political Economy of Rural Africa. Cambridge: Cambridge University Press. 1983.

11) Bates R.H: ed: Towards a Political Economy of Development : A Rational Choice Perspective. Berkeley, California: University of California Press. 1988.

12) Bates R. H: Beyond the Miracle of the Market: The Political Economy of Agrarian Development in Kenya. Cambridge: Cambridge University Press. 1989.

13) Baviskar B. S: The Politics of Development: Sugar Co-operatives in Rural Maharashtra. Delhi: OUP. 1980.

14) Coulson A: Tanzania : A Political Economy. Oxford: Clarendon. 1982.

15) Gyllstrom B: State Administered Rural Change:Agricultural Co-operatives in Kenya. London: Routledge. 1990.

16) Bhagwati J. N. & Desai P: India: Planning for Industrialization: Industrialization and Trade Policies Since 1951. London: OUP. 1970.

17) Bhagwati J. N & Srinivasan T.N: India: Foreign Trade Regimes and Economic Development. New York: Distributed by Columbia University Press. 1975.

18) Bhambri C.P: Political Process in India, 1947-1991. New Delhi. Vikas Publishing House. 1991

19) Buchanan J.M & Tullock G: The Calculus of Consent. Logical Foundations of Constitutional Democracy. Ann Arbour: The University of Michigan press. 1962.

20) Chakravarty S: Development Planning : The Indian Experience. New Delhi. OUP. 1987.

21) Collander D.C ed: Neoclassical Political Economy: The Analysis of Rent-Seeking and DUP Activities. Cambridge, Massa: Ballinger Publishing Company. 1984.

22) Cyert R.M & March J.G; A Behavioural Theory of the Firm. Englewood Cliffs: Prentice Hall Inc. 1963.

23) Dooren P.J: Co-operatives for Developing Countries: Objectives, Policies and Practices. Translated by Lawson R with Konijnenbelt.A. Oxford: Plunket Foundation for Co-operative Studies. 1982.

24) Doornbos M et al: Dairy Aid and Development: India's Operation Flood. Indo-Dutch Studies on Development Alternatives-3. New Delhi: Sage Publications. 1990.

25) Doornbos M & Nair K.N: Resources, Institutions and Strategies: Operation Flood and Indian Dairying. Indo-Dutch Studies on Development Alternatives-4. New Delhi: Sage Publications. 1990.

26) Dulfer E & Hamm W ed: Co-operatives in the Clash Between Member Participation and Bureaucratic Tendencies: A Complete Guide to the Creation, Promotion and Supervision of Co-operative Societies Resulting from an International Symposium in Marburgh. London: Quiller Press. 1985.

27) Dunleavy P: Democracy, Bureaucracy and Public Choice: Economic Explanations in Political Science. London: Harvester. 1991.

28) Dunleavy P & O'Leary B: Theories of the State: The Politics of Liberal Democracy. Basingstoke: Macmillan Education. 1987.

29) Evans P.B et al: Bringing the State Back in. Cambridge: Cambridge University Press. 1985.

30) Frank A. G: Dependent Accumulation and Underdevelopment. London: Macmillan. 1978.

31) Frankel F.R: India's Political Economy 1947-1977 : The Gradual Revolution. New Delhi. OUP. 1984.

32) Galbraith G. K: American Capitalism. The Concept of Countervailing Power. Middlesex: Penguin Books. 1952.

33) Gallagher M : Rent-Seeking and Economic Growth in Africa. Boulder Col: Westview Press. 1991

34) George P. S & Nair K N: Livestock Economy of Kerala. Trivandrum: Centre for Development Studies. 1990

35) George S: Operation Flood: An Appraisal of Current Indian Dairy Policy. Delhi: OUP. 1985.

36) Grindle M.S ed: Politics and Policy Implementation in the Third World. Princeton, N.J: Princeton University Press. 1986.

37) Grindle M.S & Thomas J.W: Public Choices and Policy Change: The Political Economy of Reform in Developing Countries. Baltimore: Johns Hopkins University Press. 1991.

38) Hanson A.H: The Process of Planning: A Study of India's Five Year Plans. 1950-84. London: OUP. 1966.

39) Harriss J & Moore M: Development and the Rural-Urban Divide. London: Cass. 1984.

40) Helm D ed: The Economic Borders of the State. New York. Clarendon Paperbacks. OUP. 1989.

41) Hillman. A. L: Markets and Politicians: Politicized Economic Choice. Boston: Kluwer Academic Publishers. 1990.

42) Hirschman A.O: A Bias for Hope: Essays on Development and Latin America. New Haven: Yale University Press. 1971.

43) Hirschman A.O: Essays in Trespassing: Economics to Politics and Beyond. Cambridge, England: Cambridge University Press. 1981.

44) Jackson P.M: The Political Economy of Bureaucracy. Deddington: Philip Allan .1982.

45) Jeffrey R: The Decline of Nayar Dominance: Society and Politics in Travancore: 1847-1908. London : Chatto and Windus for Sussex University Press. 1976.

46) Jeffrey R: Politics, Women and Well Being: How Kerala Became "a Model". Hampshire: Macmillan Press. 1992.

47) Jha P.S: India: A Political Economy of Stagnation. Bombay: OUP. 1980.

48) Kochanek S.A: Business and Politics in India. Berkeley, California: University of California Press. 1974.

49) Kohli A ed: The State and Development in the Third World. Princeton, N.J: Princeton University Press. 1986.

50) Kohli A: The State and Poverty in India: The Politics of Reform. Bombay: Orient Longman. 1987.

51) Kohli A: Democracy and Disorder: India's Growing Crisis of Governability. Cambridge: Cambridge University Press. 1990.

52) Kothari R: Politics and the People: In Search of a Humane India. New York: New Horizons Press. 1989.

53) Krueger. A. O: Economic Policy Reform in Developing Countries. The Kuznets Memorial Lectures of the Economic Growth Centre, Yale University. Cambridge, Mass: Basil Blackwell. 1992.

54) Lal D: The Poverty of Development Economics. London: Institute of Economic Affairs. 1983.

55) Lipton M: Why Poor People Stay Poor: A Study of Urban Bias in World Development. London: Temple Smith. 1977.

56) Manchester A.C: The Public Role in the Dairy Economy: Why and How Governments Intervene in the Milk Business. Boulder, Colorado: Westview Special Studies in Agriculture Science and Policy. 1983.

57) Mascarenhas R.C: A Strategy for Rural Development: Dairy Co-operatives in India. New Delhi: Sage Publications. 1988.

58) Mclean I: Public Choice: An Introduction. Oxford: Basil Blackwell. 1987.

59) Menon A: What Happened in Kerala: Review of 30 Months of Nampoodiripad Government. New Delhi. CPI.1969.

60) Mergos G & Slade R: Dairy Development and Milk Co-operatives: The Effects of a Dairy Project in India. World Bank Discussion Paper No: 15. Washington D.C: The World Bank. 1986.

61) Mitra S.K: Power, Protest and Participation: Local Elites and the Politics of Development in India. London: Routledge. 1992.

62) Mitra S.K ed: The Post Colonial State in Asia: Dialectics of Politics and Culture. London: Harvester. 1990.

63) Moore M: The State and Peasant Politics in Sri Lanka. Cambridge: Cambridge University Press. 1985.

64) Morris-Jones W H: The Government and Politics of India. New Delhi: Universal Book Stall. 1987.

65) Nampoodiripad E.M.S: Kerala, Yesterday, Today and Tomorrow. Calcutta. National Book Agency. 1968.

66) Nayar B.R: India's Mixed Economy: The Role of Ideology and Interest in its Development. London: Sangam Books. 1989.

67) Nayar B.R: The Political Economy of India's Public Sector: Policy and Performance. London: Sangam. 1990.

68) Nossiter T. J: Communism in Kerala: A Study in Political Adaptation. London: C. Hurst, for the Royal Institute of International Affairs. 1982.

69) Nossiter T. J: Marxist State Governments in India: Politics, Economics and Society. London: Pinter. 1988.

70) Olson M: The Logic of Collective Action: Public Goods and the Theory of Groups. Cambridge, Massachusetts: Harvard Economic Studies. Vol: CXXIV Harvard University Press. 1965.

71) Olson M: The Rise and Decline of Nations. Economic Growth, Stagflation and Social Rigidities. New Haven: Yale University Press. 1982.

72) Oommen T.K: From Mobilisation to Institutionalization: The Dynamics of Agrarian Movement in Twentieth Century Kerala. London: Sangam. 1985.

73) Panikar P.G & Soman C.R: Health Status of Kerala: Paradox of Social Development and Economic Backwardness. Centre for Development Studies. Trivandrum. 1985.

74) Potter D.C: India's Political Administrators. 1919-83. Oxford: Clarendon. 1986.

75) -----: Poverty, Unemployment and Development Policy. Centre for Development Studies. Trivandrum. Orient Longman. Bombay. 1975.

76) Prasad H.P: Lopsided Growth: Political Economy of Indian Development. Bombay: OUP. 1989.

77) Rowley C.K et al ed: The Political Economy of Rent-Seeking. Boston: Kluwer Academic. 1988

78) Roy S & James W .E: Foundations of India's Political Economy: Towards an Agenda for the 1990s. New Delhi: Sage Publications. 1992.

79) Rudolph L.I & Rudolph S.H: In Pursuit of Lakshmi: The Political Economy of the Indian State. Bombay: Orient Longman. 1987.

80) Russell C.S & Nicholson N.K: Public Choice and Rural Development: The Proceedings of a Conference Sponsored by the U.S Agency for International Development and Held in Washington, D.C in September 1979, Under the Auspices of Resources for the Future Inc; Washington D.C : Resources for the Future. 1981.

81) Samuelson P.A & Nordhaus W. D: Economics. New York: MacGraw-Hill. International Edition. 1985.

82) So, Y.A: Social Change and Development: Modernization, Dependency and World-System Theories. Newbury Park, California: Sage Publications. 1990.

83) Staniland M: What is Political Economy?: A Study of Social Theory and Underdevelopment. New Haven: Yale University Press. 1985.

84) Strange S: States and Markets. London: Pinter. 1988.

85) Suresh G ed: Gangadharan on the Kerala Co-operative Societies Act, 1969. Cochin: A G Publications. 1990.

86) Taylor D: India: The Politics of Change. London: Fabian Society. 1980

87) Todaro M. P: Economics for a Developing World. London: Longman. 1982.

88) Tullock G: The Politics of Bureaucracy. Lanham : University Press of America. 1987.

89) Tullock G: The Economics of Special Privilege and Rent Seeking. Boston: Kluwer Academic . 1989.

90) Uphoff N.T & Ilchman W. F ed: The Political Economy of Development. Berkeley: University of California Press. 1972.

91) Velu Pillai T K: The Travancore State Manual. Part I. Trivandrum. 1940.

92) Wade R: Village Republics: Economic Conditions for Collective Action in South India. Cambridge: Cambridge University Press. 1988.

93) Wade L.L ed: Political Economy: Recent Views. Boston. Kluwer- Nijhoff. 1983.

94) Weiner M: Essays in Indian Politics. Ed: Varshney A-New Delhi: Sage. 1989.

95) Woodcock G: Kerala: A Portrait of the Malabar Coast. London: Faber and Faber. 1967.

96) -----: World Development Report. 1991. The World Bank. New Delhi: OUP. 1991.

97) Worsley P ed: Two Blades of Grass: Rural Cooperatives in Agricultural Modernization. Manchester: Manchester University Press. 1971.

98) Young C et al: Co-operatives and Development: Agricultural Politics in Ghana and Uganda. Madison, Wis: University of Wisconsin Press. 1982.

99) Zald M.N: Power in Organizations. [Proceedings]. Nashville: Vanderbilt University Press. 1970.