Report of the Expert Group on Agricultural Indebtedness

Ministry of Finance
Government of India
July 2007

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Banking Division
Department of Economic Affairs
Ministry of Finance
Government of India

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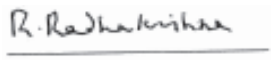
AGRICULTURAL INDEBTEDNESS

We, the undersigned, Chairman and the Members of Expert Group on Agricultural Indebtedness have adopted the Report and submit the same

CHARIMAN

R. RADHAKRISHNA : 

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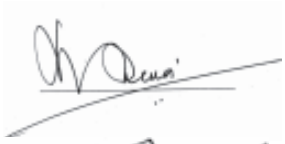
P.V. SHENOI : 

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PREFACE

There has been a distinct slow down in agricultural growth during the past two decades, in spite of substantial acceleration in the growth of the Indian economy. The slow down is accompanied by a significant reduction in the share of agriculture in national product, but without much reduction in the share of workers depending on it for their livelihood. The two faces of the emerging distress are the manifestation of agrarian crisis that threatens the livelihoods of farmers, particularly those of the small and marginal ones; and the agricultural development crisis of reduction in its overall growth rate accompanied by declining profitability. The support systems to farming have weakened, public investments in agriculture have declined and institutions have become unresponsive. In the absence of any breakthrough in cost reducing technologies, the rising input prices have made cultivation un-remunerative. The result is the manifestation of agrarian crisis, often, in the extreme form of distress that results in suicides by some farmers.

Though there are a number of factors behind the present agrarian crisis, it is the growing indebtedness that compels attention. It is declining earnings that results in the inability to repay debt that triggers farmers' decision to commit suicide. Hence, indebtedness of farmers becomes a central issue to be addressed. It is in this context that the Government of India has appointed this Expert Group to examine the indebtedness of farmers in its totality with a view to designing and implementing effective policies, programmes and instruments of intervention.

The Expert Group set about its task in full recognition of the fact that indebtedness of farmers in India is as diverse and heterogeneous as are the agrarian conditions. There are wide regional, institutional, class and community differences in the nature and magnitude of farmers' indebtedness. The resource base of agriculture varies from region to region. The levels of access to technology also vary. There are large areas where there is an institutional vacuum. The nature of interventions has to be informed by these differences as well as by agro-climatic diversities.

To meet the challenge of comprehending the diversity in indebtedness, the Expert Group started its work by constituting regional sub-groups so as to assess the situation in each of the states in these regions. A series of consultations were held with national and regional institutions which are working at the frontier of technologies such as remote sensing and application of information technology to banking operations; national commodities exchanges; agricultural insurance providers; and agricultural export promoting agencies. There were also presentations before the Expert Group from different agencies associated with crop, weather and health insurance. The model of Self-Help Groups (SHGs) for farmers was intensively studied by the Expert Group both at the institutional and field levels.

The work of the Expert Group involved frequent meetings, discussion of commissioned papers, reports of regional sub-groups and presentations by experts dealing with various aspects of problems of agricultural distress. The participation of permanent invitees enriched the

proceedings. The Expert Group was ably supported by Economic and Political Weekly Research Foundation (EPWRF), Indira Gandhi Institute of Development Research (IGIDR) and National Bank for Agriculture and Rural Development (NABARD) in the analysis of data.

The Expert Group places on record its gratitude to Professor G. S. Bhalla, Professor D. Narasimha Reddy, Professor V. M. Rao, Dr. S. L. Shetty and Dr. Srijit Mishra who were deeply involved in the entire work right from the beginning as permanent invitees as well as drafting committee members. Their involvement helped in chalking out the course of work and extracting the essence from the proceedings of meetings as well as from the commissioned papers and reports of the sub-groups. Professor Sheila Bhalla participated in the final meetings of the Expert Group and Drafting Committee, went through all the chapters and made detailed comments. Dr. Srijit Mishra completely handled the logistics at IGIDR. His in-depth study on suicides of farmers in Maharashtra provided very useful background material. Dr. V. Puhazhendhi and Mr. Nirupam Mehrotra looked after the logistics at NABARD, besides assisting the Expert Group and Drafting Committee in their work.

R. Radhakrishna
Chairman
Expert Group on
Agricultural Indebtedness

RECOMMENDATIONS

I. INTRODUCTION

1. The issue of farmers' indebtedness becomes a matter of intense debate whenever the agricultural sector faces distress. But, the root cause of the current crisis is not indebtedness alone - indebtedness is just a symptom. The underlying causes are stagnation in agriculture, increasing production and marketing risks, institutional vacuum and lack of alternative livelihood opportunities. The data presented and analysed in this report suggest that the average farmer household borrowing, measured by any yardstick, has not been excessive. In fact, the credit needs of the agricultural sector have vastly expanded in the wake of its modernisation and commercialisation. There is an urgent need to expand the production base of agriculture with emphasis on small and marginal farmers so as to integrate them with mainstream development. This calls for appropriate technological innovations, institutional alternatives and introduction of novel instruments of intervention.

2. There is large scope for institutional agencies to expand the credit base of farm households further. Institutional credit availability to agriculture should be increased, excluded sections of the farmer households be brought into its ambit and a qualitative improvement in the credit delivery arrangements be brought about. The debt burden of farmers to informal sources should be reduced by formalising it through transferring the informal debt to formal institutions.

3. Rainfed areas are particularly prone to year-to-year fluctuations of production and degradation of environmental resources. Concerted efforts are needed to rejuvenate their natural resource base as also to stabilise and augment the income sources of farm households.

4. In the present liberalised trade and market regime, farmers are exposed to price volatility because of fluctuations in domestic production and wide fluctuations in international prices. Currently no adequate and effective risk mitigating measures exist to counter the adverse impact of such fluctuations. Further, rapid changes in information and space technology which hold immense potential have hardly been used to provide timely weather signals to the farmers and thereby mitigating the weather induced risks.

5. Since the mid-1990s, large sections of the farm households have been facing a great deal of distress as a consequence of decline in agricultural income, erosion of their repayment capacity and increased debt burden. Reversal of this trend would require not only adequate institutional credit to farmers but also undertaking steps to revive agriculture which would help increase credit absorptive capacity of farmers.

6. This report focuses on institutions and instruments that would strengthen the credit delivery mechanism for the farm community in particular and for rural India in general. While doing so, it takes cognisance of the imperatives of addressing the credit absorption and demand-side issues. Policy interventions and institutional reforms essential for resolving the farm crisis, which go beyond the credit delivery system, also form part of this report. In the long-term interest of the financial system, a positive repayment culture for bank loans deserves to be actively promoted. There should be a sound system of incentives for prompt repayment.

7. The most serious aspect of the crisis in agriculture is deceleration in its growth along with the distressed state of farmers in general and that of small and marginal farmers in particular. Innovative alternatives are needed to provide them with better institutional credit support. For this purpose, the Expert Group feels that the objectives would be served better if farmers, especially small and marginal farmers, are organised through collectives like Self-Help Groups (SHGs) and cooperatives. Besides credit delivery, these collectives are expected to help the farmers in improving their farming practices through better accessing of appropriate technology, extension services, improved processing and marketing capabilities and risk management. Credit arrangements will have to be complemented with arrangements for insurance against natural calamities, for social security and for health insurance. Farm households should be enabled to diversify their livelihood activities through the development of non-farm activities. This requires adequate infrastructure and setting up of appropriate institutions for skill formation, training and education. Producer cooperatives, federations of farmers' SHGs and other forms of collectives, would enable the farmers, including the small and marginal farmers to participate in value addition activities like marketing and processing.

8. Currently, the government has several developmental and anti-poverty programmes for the rural poor. To ensure that these programmes benefit poor farmers, farmers' organisations should have a role in their design, implementation and monitoring. This will also serve as a platform for asserting their rights and for their economic empowerment. The state should play a pro-active role in promoting such organisations.

9. The Government of India responded to the agrarian crisis through a package of relief measures for 31 distress-affected districts spread over Andhra Pradesh, Karnataka, Kerala and Maharashtra. In addition, the Governments of these states, as also the Government of Punjab, have come out with relief measures, *inter alia*, providing compensation to the bereaved farmers' families (*paras 4.11-4.15*).

10. The Prime Minister's package is comprehensive in terms of coverage and problems addressed. However, it suffers from some deficiencies in design and implementation. First, the design of some of the schemes is not based on the felt needs of households. Second, there is a lack of region and household specific flexibility built into these measures. Third, there are implementation and monitoring problems due to lack of proper institutional arrangements (*paras 4.19-4.26*).

II. IMMEDIATE CREDIT MEASURES

Implementation of the Prime Minister's Relief Package

11. The Expert Group feels that the implementation and monitoring of relief measures for distressed farmers envisaged in the Prime Minister's package needs to be addressed carefully. It recommends that the needs of individual households should be taken into account with necessary flexibility and further that follow-up steps should be taken to relieve the families from

distress. It also recommends continuation of 'Non-Credit Component' of the package for two more years (*paras 4.36-4.38*).

Rescheduling of Loans of Farmers Affected by Natural Calamities

12. The central and state governments have programmes of rescheduling loans to farmers affected by natural calamities like floods and cyclones with a view to reviving the livelihood base of the affected families. The Expert Group recommends that

a. the loans of all the affected families should be rescheduled,

b. the families whose loans are rescheduled should be eligible for fresh loans, and

c. the interest liability of the borrowers for the extended period of up to two years (both for short and long term loans) should be waived and the financial burden equally shared between the central and state governments (*para 4.12*).

Credit for Rainfed Areas

13. Rainfed areas in many parts of India are prone to frequent crop failures and need special treatment. The Expert Group recommends that in the event of crop failure for one year, the loans should be rescheduled and fresh loans be made available. Should the crop fail for the second consecutive year, as per the assessment of revenue authorities, in addition to rescheduling of the crop loan, interest for the extended one year period should be waived and the financial burden equally shared between the central and state governments (*para 4.12*).

Cyclical Credit

14. The existing system of crop loan tends to constrict credit flow in rainfed areas when rains fail. The Expert Group recommends that such liquidity constraints should be mitigated through cyclical credit by a system of treating crop loan as a weather cycle long intervention rather than as an annual feature. It could be initiated on a pilot basis in a few rainfed districts (*para 2.53*).

Formalisation of Informal Credit

15. The Expert Group underlines the need for mitigating the burden of farmers' indebtedness to moneylenders. It recommends a one-time measure of providing long-term loans by banks to farmers to enable them to repay their debts to the moneylenders. Further, it recommends that Panchayat Raj Institutions (PRIs), civil society organisations like farmers' collectives and Non-Governmental Organisations (NGOs) should be involved in arriving at negotiated settlements with the moneylenders. This would also help in achieving the objective of financial inclusion. The modalities of the scheme may be worked out by the National Bank for Agriculture and Rural Development (NABARD) for early implementation. The cost of making this scheme operational in the distressed districts should be met by creating a 'Moneylenders Debt Redemption Fund' with

contribution from central and state governments. Initially, Rs. 100 crore should be earmarked for this purpose (*paras 3.8, 3.16 and 4.33*).

Inclusion of 'Financially Excluded'

16. The Expert Group recommends that the main focus of the programme of 'financial inclusion' should be on the basis of credit needs of all small borrower households. Institutional credit should be extended to those excluded farmer households who do not have access to any source of credit. This coverage should be placed on a *mission mode* for the farm community as a part of the strategy of financial inclusion and as a part of the goal of mitigating distress amongst the farming community. This should involve the mobilisation of all institutions - scheduled commercial banks, Regional Rural Banks (RRBs) and cooperatives, and through them, agencies like *business facilitators* and *business correspondents* (*paras 2.42 and 3.4*).

Project-Based Lending

17. Despite instructions to banks to assess collateral on the basis of the value of land and assets created out of bank loans, there are instances where these are not complied with resulting in denial of adequate credit. The Expert Group recommends that the Reserve Bank of India (RBI) and NABARD ensure that banks comply with these instructions.

III. FINANCIAL ARCHITECTURE

18. In order to ensure an effective, inclusive and sustainable rural financial system, it is essential to put in place an architecture with appropriate institutions and instruments of credit. The objective of the structure is to establish a strong and vibrant rural credit system in India. For this the apex financial institutions like RBI and NABARD have to play a positive role. Further, the scheduled commercial banks, RRBs, the cooperatives and other credit institutions have to revitalise their rural operations.

Agency and Mobile Banking

19. There is a need to extend the spread of rural branch networks by scheduled commercial banks, RRBs and cooperatives. The system of *agency banking* involving *business facilitators* and *business correspondents* should be effectively implemented to widen the outreach of the financial services. Apart from various agencies and institutions covered under these categories, farmers' organisations should also be considered as agents as per established norms (*paras 2.16, 2.17, 2.42, 5.18 and 5.49)*.

20. Urgent steps should be taken to set up *mobile branches* of banks in rural areas to ensure that the farmers are served at the doorstep, simultaneously reducing transaction costs on either side (*paras 2.42 and 5.18*).

System of Bharat Kisan Card

21. The Expert Group recommends the conversion of the *Kisan Credit Card* (KCC) into a full-featured *Bharat Kisan Card* (BKC) – an electronic document to be issued to each farmer incorporating the details of land, buildings, other assets and those of the credit facilities enjoyed. This has to be put on a *mission mode*. The credit limit should cover consumption requirement also. In rainfed areas, the features of cyclical credit should also be built into the card. NABARD should implement and oversee the programme with appropriate monitoring and evaluation machinery (*paras 2.53-2.54*).

Reforming Lead Bank Scheme

22. The Lead Bank Scheme (LBS) was designed to bring about close coordination between district planning authorities and banking institutions. In the context of emergence of new institutions such as federations of farmers' SHGs and the growing need for credit counselling by farmers, the Expert Group recommends that RBI should revitalise LBS (*para 2.22*).

Credit Counselling for Farmers

23. Farmers need an appropriate system of credit counselling, particularly for diversification of their economic activities. Banking institutions, farmers' SHG federations, agri clinics and other similar institutions should be enabled to perform this function. NABARD should be actively involved in providing training to these groups and it is desirable that NABARD helps them in setting up at least one counselling centre in each block with appropriate guidelines (*para 2.22*).

Simplifying the Procedure for Mortgages

24. A declaration supported by revenue land records should be made sufficient to create a mortgage of land against which the banks can provide loans. The Expert Group recommends that appropriate legislation should be enacted to facilitate creation of mortgages without procedural complexities (*para 2.34*).

Simplifying Procedures to Reduce Transaction Costs

25. A number of studies have drawn attention to the forbidding transaction costs faced especially by small and marginal farmers in accessing credit from scheduled commercial banks and RRBs. These costs are in the form of procedural delays, more paper work, repeated trips to the banks and even bribes. While farmers' collectives like SHGs and operationalisation of the recommended BKCs are bound to reduce these transaction costs, the Expert Group recommends that as a part of the regulatory mechanism banks should be directed to comply with simplifying procedures and provide help to small and marginal farmers in timely accessing of credit (*para 2.34*).

Computerisation of Records

26. Farmers face many problems in sourcing land records in connection with securing credit. The Expert Group is aware of the process of computerisation of land records by various state governments but is concerned about its slow pace. The Expert Group recommends early updating and computerisation of land records. This would facilitate noting the charge on the land, and improve availability of credit (*paras 5.26 and 5.27*).

27. The Expert Group recommends that crop loans should be extended to tenant farmers on the basis of tenancy records. To achieve this, it is necessary to legalise tenancy with due protection to small and marginal farmers and put tenancy in the Record of Rights (ROR). The freeing of lease markets should be preceded by registration of land records with due protection to tenant farmers (*paras 5.8 and 5.26*).

Integration of Micro Finance Institutions with the Mainstream Banking

28. The Expert Group feels that Micro Finance Institutions (MFIs) should be an integral part of mainstream banking. Banks should provide resource support to MFIs subject to the condition that these institutions moderate interest rates and abide by ethical banking practices (*para 2.49*).

Qualified Personnel

29. Modern agriculture requires a sophisticated system of credit delivery with appropriate methods of project preparation and evaluation. The Expert Group recommends that the banks should continue to make special efforts to induct qualified graduates in agriculture and allied sciences in their staff for undertaking these activities (*para 5.51*).

Role of NABARD

30. NABARD being the apex institution responsible for rural credit delivery, the Expert Group recommends that efforts should be made to enhance further its developmental role helping the farmers to improve their credit-absorption capacity. NABARD should provide effective guidance and training to the banks in the formulation of projects related to agriculture and the rural non-farm sector. In order to fulfil these obligations, the resource base and research capabilities of NABARD should be strengthened (*paras 2.35-2.41*).

31. To ensure effective implementation of various guidelines to banks on rural credit in general and credit to farmers in particular, NABARD in consultation with RBI should put in place a systematic monitoring arrangement.

32. At present, there are deficiencies and discrepancies in data on bank credit to agriculture. The Expert Group recommends that the RBI and NABARD should provide and widely disseminate reliable and consistent data series on agricultural credit.

Ensuring Priority Sector Lending to Agriculture

33. The Expert Group is of the view that the 18 per cent prescription of priority sector lending to agriculture by banks is a long-standing commitment, as a matter of public policy. However, this target is not being met by the banking system and there is a huge gap. The Expert Group recommends that the Government should ensure that banks fulfil this commitment (*paras 2.13-2.14 and 2.35-2.41*).

Improved Deployment of RIDF

34. At present, the Rural Infrastructure Development Fund (RIDF) constitutes only a part of the total shortfall of the bank lending to agriculture from the target of 18 per cent. The Expert Group recommends that the entire shortfall should be earmarked for agricultural development. Further, all RIDF funds are not being utilised to their full potential and there is inadequate flow to the less developed states. The Expert Group recommends that the unutilised portion of banks' obligation towards priority sector lending to agriculture should be fully transferred directly to NABARD or to the central government by issuing non-transferable Rural Development Bonds (RDBs) for financing agricultural development programmes. Top priority should be given to the less developed states. The Expert Group recommends the implementation of the programmes in 100 agriculturally less developed and distressed districts identified for special agricultural development programmes (Annexure A). This list includes the 31 distressed districts covered by the Prime Minister's package and in addition to 69 agriculturally less developed districts based on the criteria of land productivity, credit flow and the incidence of urbanisation. The list may be firmed up keeping in view the spirit of the recommendations. To begin with, a sum of Rs 10,000 crore should be earmarked for agricultural development programmes in the hundred districts (*paras 2.35-2.41, 5.30 and 5.31*).

IV. INSTITUTIONAL ARCHITECTURE: FEDERATIONS OF FARMERS' SHGs

35. Recent experience of federations of SHGs in Andhra Pradesh shows that these can enable the poor to improve their livelihood and to participate in mainstream activities with enhanced bargaining power. The Expert Group recommends that based on this model, the state governments should make efforts to facilitate the formation of Federations of farmers' SHGs in all distressed districts of the country, provide technical support and training for capacity building, and establishing market linkages. The Expert Group also recommends a Farmers Livelihood Improvement Mission (FLIM) at the state and district levels headed by the Chief Minister and the District Collector respectively. The mission should be supported by a Livelihood Support Centre (LSC) having professional expertise and manpower to organise the farmers, identify economic opportunities for the farmers, particularly for small and marginal farmers and create projects and systems in coordination with different stakeholders. The central and state governments, the commercial banks, and other public institutions should play a pro-active role in promoting them (*paras 2.50-2.52, 5.17and 5.32-5.36*).

V. RISK MITIGATION MEASURES

36. The Expert Group recommends a two-tier approach to the management of agricultural risks: crop and weather insurance at the taluka/district level; and distress relief at the state level (*paras 5.37-5.47*).

Crop Insurance

37. Currently, a crop insurance scheme is being implemented at the district level under the National Agricultural Insurance Scheme (NAIS). It is expanding at a rapid rate. The main reason for its growth is that crop loans are granted contingent upon farmers' participation in the insurance scheme. There are genuine problems in its operation. First, there is non-availability of reliable yield data below the state/district level. Since the claim amounts are high, the scheme is highly subsidised by both the central and state governments. Third, most of the claims are going to a few crops in a few states. Fourth, there is an inherent problem of moral hazard because of the possibility of collusion between implementing agencies and farmers. Given the importance of the crop insurance scheme for covering yield risks, the Expert Group recommends that a high level committee should thoroughly evaluate the scheme with a view to making it more effective (*paras 5.38-5.39 and 5.45*).

Weather Insurance

38. Weather insurance schemes which are currently in operation suffer from even greater infirmities. The Expert Group is concerned about the rapid expansion of schemes without establishing the relationship between rainfall and yields on a scientific basis. The Expert Group feels that the high level committee recommended above (paragraph 37) should also make a comparative evaluation of crop insurance, rainfall insurance and insurance based on moisture stress indices derived from satellite imagery data (*paras 5.42 and 5.44-5.45*).

Price Risk Mitigation

39. To mitigate the impact of price collapse in cases of commodities not covered under Minimum Support Prices (MSPs), the Expert Group recommends that financial support may be provided to farmers out of a 'Price Risk Mitigation Fund' (*para 5.53*).

Variable Tariff

40. In wake of trade liberalisation, several agricultural commodities are facing stiff competition from imports. Import policy, including variable tariffs and other measures compatible with World Trade Organisation (WTO), should be used to mitigate the adverse impact of such imports. Simultaneously, producers should be enabled to increase their productivity and competitiveness through investments in new technology. (*paras 5.22 and 5.53*).

Crop Surveillance

41. The Expert Group recommends that surveillance and advance crop assessment systems should be initiated in distressed districts of rainfed areas by using satellite imagery. For this, the National Remote Sensing Agency (NRSA) should create a separate unit that will work as a nodal agency. This system needs to be institutionalised (*paras 5.46 and 5.47)*.

42. The NRSA should provide early warning signals to drought mitigating agencies at the central, state and taluka level, and the information should be widely disseminated through their websites and other means to reach the farming community at the right time (*paras 5.46 and 5.47*).

43. The Expert Group further recommends that NRSA should strengthen its Research and Development (R&D) to establish links between satellite imagery data relating to soil moisture/ vegetative cover and actual yields based on crop cutting experiments (*paras 5.46 and 5.47*).

Mitigating Risks from Spurious Inputs

44. The Expert Group recommends establishing an appropriate regulatory framework and rules to ensure quality inputs to the farmers. An adequate number of input testing laboratories needs to be opened at the panchayat/block level to facilitate quality checks of inputs such as seeds, pesticides and fertilisers. A clear cut regulatory mechanism should be laid down for indemnifying the farmers for their losses caused by spurious inputs (*paras 1.25, 1.40, 1.46, 4.8 and 4.30*)

Strengthening of Research and Extension Services

45. A major factor contributing to agrarian distress is the collapse of R&D and extension systems. The Expert Group recommends that major efforts should be made to intensify agricultural research in frontier areas like bio-technology through increased investment. The Expert Group further recommends that the extension system should be revived by strengthening the linkage between agricultural universities and extension personnel, setting up of Krishi Vigyan Kendras (KVKs), agri-clinics, Agricultural Technology Management Agencies (ATMAs), farmer field schools and technology kiosks. Adequate budgetary provision should be made for reviving the agricultural research and extension system (*paras 4.29, 5.11-5.12 and 5.50*).

VI. OTHER MEASURES

Expanding Livelihood Base

46. The Expert Group underlines the need for expanding the livelihood opportunities for the rural population and recommends that income diversification opportunities should be created by promoting allied agricultural, agro-processing and other rural non-farm enterprises with a view to improving the sources of income of the farmers in general and the small and marginal farmers in particular as well as that of landless agricultural labourer households (*paras 1.46 and 5.55*).

Rural Health Facilities

47. Expenditure on health is an unforeseen burden that leads to heavy borrowing, largely from informal sources, by affected families. This calls for immediate steps of strengthening the primary healthcare facilities. In addition, the Expert Group recommends implementation of health schemes for rural people. The centre should support the states to implement, with appropriate modifications, the *Yashaswini* rural healthcare scheme of Karnataka (*para 4.31*).

ANNEXURE - A

LIST OF 100 AGRICULTURALLY LESS DEVELOPED AND DISTRESSED DISTRICTS

No	State	District
1	Andhra Pradesh	Adilabad*
2	Andhra Pradesh	Anantapur*
3	Andhra Pradesh	Chittoor*
4	Andhra Pradesh	Cuddappah*
5	Andhra Pradesh	Guntur*
6	Andhra Pradesh	Karimnagar*
7	Andhra Pradesh	Khammam*
8	Andhra Pradesh	Kurnool*
9	Andhra Pradesh	Medak*
10	Andhra Pradesh	Mahaboobnagar*
11	Andhra Pradesh	Nalgonda*
12	Andhra Pradesh	Nellore*
13	Andhra Pradesh	Nizamabad*
14	Andhra Pradesh	Prakasam*
15	Andhra Pradesh	Ranga Reddy*
16	Andhra Pradesh	Warangal*
17	Bihar	Banka
18	Bihar	Bhagalpur
19	Bihar	Darbhanga
20	Bihar	Jamui
21	Bihar	Lakhisarai
22	Bihar	Madhubani
23	Bihar	Saran
24	Chattisgarh	Bilaspur
25	Chattisgarh	Janjgir
26	Chattisgarh	Jashpur
27	Chattisgarh	Kanker
28	Gujarat	Dahod
29	Gujarat	Patan
30	Jammu & Kashmir	Baramulla
31	Jammu & Kashmir	Doda
32	Jammu & Kashmir	Kargil
33	Jammu & Kashmir	Kupwara
34	Jammu & Kashmir	Udhampur

No	State	District
35	Jharkhand	Deoghar
36	Jharkhand	Gumla
37	Jharkhand	Hazaribag
38	Jharkhand	Lohardaga
39	Jharkhand	Pakaur
40	Jharkhand	Sahibganj
41	Jharkhand	Seraikela
42	Jharkhand	Simdega
43	Karnataka	Belgaum*
44	Karnataka	Chikmangalur*
45	Karnataka	Chitradurga*
46	Karnataka	Hassan*
47	Karnataka	Kodagu*
48	Karnataka	Shimoga*
49	Kerala	Kasargod*
50	Kerala	Palakkad*
51	Kerala	Wyanad*
52	Madhya Pradesh	Anuppur
53	Madhya Pradesh	Ashoknagar
54	Madhya Pradesh	Balaghat
55	Madhya Pradesh	Barwani
56	Madhya Pradesh	Betul
57	Madhya Pradesh	Burhanpur
58	Madhya Pradesh	Chhatarpur
59	Madhya Pradesh	Chhindwara
60	Madhya Pradesh	Dindori
61	Madhya Pradesh	Jhabua
62	Madhya Pradesh	Katni
63	Madhya Pradesh	Mandla
64	Madhya Pradesh	Panna
65	Madhya Pradesh	Rewa
66	Madhya Pradesh	Seoni
67	Madhya Pradesh	Shahdol
68	Madhya Pradesh	Sidhi

No	State	District
69	Madhya Pradesh	Umaria
70	Maharashtra	Akola*
71	Maharashtra	Amravati*
72	Maharashtra	Buldhana*
73	Maharashtra	Gadchiroli
74	Maharashtra	Gondia
75	Maharashtra	Nanded
76	Maharashtra	Nandurbar
77	Maharashtra	Osmanabad
78	Maharashtra	Wardha*
79	Maharashtra	Wasim*
80	Maharashtra	Yavatmal*
81	Orissa	Boudh
82	Orissa	Koraput
83	Orissa	Malkangiri
84	Orissa	Nawapara

No	State	District
85	Rajasthan	Churu
86	Rajasthan	Dungarpur
87	Rajasthan	Jaisalmer
88	Rajasthan	Nagaur
89	Rajasthan	Pali
90	Rajasthan	Rajsamand
91	Rajasthan	Sikar
92	Rajasthan	Udaipur
93	Tamil Nadu	Sivaganga
94	Uttar Pradesh	Banda
95	Uttar Pradesh	Chitrakoot
96	Uttar Pradesh	Hamirpur
97	Uttaranchal	Almora
98	Uttaranchal	Pauri Garhwal
99	Uttaranchal	Rudraprayag
100	Uttaranchal	Tehri Garhwal

Note : The above list includes the 31 distressed districts identified by the Government of India where the Prime Minister's special rehabilitation package is being implemented (these districts are marked with*). The remaining 69 districts have been included on the following criteria: (i) the district ranks low on the three-year average land productivity for 2001-02 to 2003-04, (ii) the credit-deposit ratio of the district is less than 60 per cent for 2006, (iii) the proportion of urban population in the district is less than 30 per cent in 2001. For districts formed after 2001, the urbanisation rate of the original undivided districts has been used. Districts in Goa, North-Eastern states other than Assam, and union territories are not considered due to lack of data on land productivity. The list may be firmed up to accommodate the spirit of the recommendations.

Source : Data on district-wise land productivity has been provided by Dr. Gurmail Singh of Punjab University, Chandigarh. Data on credit-deposit ratios has been provided by the Economic and Political Weekly Research Foundation. Data on urban population are based on CensusInfo 1.0, Census 2001.

CHAPTER 1

AGRARIAN CRISIS IN INDIA

I. INTRODUCTION

1.1 Indian agriculture is currently passing through a period of severe crisis. Although some features of the crisis started manifesting themselves in certain parts of India during the late 1980s, the crisis has assumed a serious dimension since the middle of the 1990s. One of the tragic manifestations of the crisis is the large number of suicides committed by the farmers in some parts of India.

1.2 The agrarian crisis in India has both long-term structural and institutional as well as short term manifestations. The long-term structural features are a sharp decline in the share of agriculture in the Gross Domestic Product (GDP) accompanied by a very low rate of labour force diversification away from agriculture. This has resulted in declining relative productivity of agriculture *vis-à-vis* that of the non-agricultural sector. A large dependence of working population on land has also resulted in a steep decline in per capita land availability. There has been an increase in the marginalisation of ownership and operational holdings. The increasing pressure on land resources is accompanied by severe stress on the availability of water resources in the country and unequal regional distribution of available water. On the credit front, the functioning of the rural cooperative credit institutions has deteriorated in many parts of the country. The emphasis on economic efficiency has led to the neglect of social priorities in lending by the commercial and regional rural banks. Targeted and priority lending are under pressure. The result is growing dependence on non-institutional sources of credit at very high rates of interest. It is only recently that some efforts have been made to rejuvenate the credit system in the country. Except for a few crops, the procurement mechanism does not serve the purpose of ensuring minimum prices to agricultural producers in many parts of the country.

1.3 The crisis has been exacerbated further by rapid environmental degradation and plateauing of the existing agricultural technology. The liberalisation of the economy has failed to give a big push to agricultural exports and to increase income and employment in agriculture. The gradual withdrawal of the state from active participation in development activities has resulted in a steep decline in public investment in agricultural infrastructure in general, and in agricultural science and technology in particular. This has resulted in deterioration of rural infrastructure, stagnation of agricultural research and development, and neglect of extension services.

1.4 These factors have combined to impinge adversely on the production potential of the agricultural sector. As a consequence, the growth rate of agriculture has decelerated noticeably during the post reform period 1990-91 to 2003-04 as compared to the period 1980-81 to 1990-91. The slowing down and stagnation of agricultural growth has adversely affected the income and employment of vast majority of rural people dependent on agriculture.

1.5 Although almost all regions in India have experienced a deceleration in their agricultural growth, the adverse impact is especially serious in rainfed regions and among small and

marginal farmers with limited resources. One more factor that has exacerbated the situation is that just at a time when small, marginal and medium farmers were showing signs of enterprise by investing resources to enhance productivity there has been deterioration in support systems. The drive towards diversification, especially in the rainfed areas in the central and southern regions of India to crops like Bacillus thuingiensis (Bt) cotton, was driven by the hope of farmers to increase yields and income. However, diversification has also necessitated large amount of borrowings from institutional as well as non-institutional sources, the latter at exorbitant rates of interest. Since rainfed areas are prone to frequent failure of rainfall, leading to very large fluctuations in output, many farmers who are in deep debt due to investments in farming are driven to distress and desperation in the case of crop failure.

1.6 There are many dimensions of the present agrarian crisis in India. The search for a solution therefore needs to be comprehensive by taking into consideration all the factors that contribute to the crisis. Furthermore, both short and long term measures are required to address the numerous problems associated with the agrarian crisis. Admittedly, farmers' indebtedness, particularly due to growing borrowing from high cost informal sources, is one of the major manifestations of the crisis that needs to be addressed forthwith. In the short run, some concrete measures have to be taken up to reduce the debt burden of vulnerable sections of the peasantry. For this, the institutional arrangements for credit, extension and marketing need to be revived. In the long run, a serious attempt has to be made to rejuvenate the agricultural sector with large investments in rural infrastructure, and in agricultural research and technology. The long-term credit needs of the farmers have to be augmented substantially to increase overall investment in agriculture.

1.7 The main purpose of this chapter is to provide a brief overview of the present agrarian crisis in India. The chapter also outlines some of the short and long term measures for addressing the problem of economic stress among large sections of peasantry in general and of small and marginal and other vulnerable sections, in particular. The chapter is divided into six sections. The introduction is followed by the second section that deals with the structural problems and resource stress in agriculture. The third section provides an overview of agricultural growth and stagnation at the national and regional levels. It also discusses agricultural exports and imports in the post-reform and post-World Trade Organisation (WTO) period, and the implications of deceleration in agricultural growth on employment. The fourth section deals with the reform process, credit availability and their impact on the farming community. The fifth section is devoted to a review of policies in agriculture and discussion of alternative strategies to overcome the current crisis so as to launch agriculture on the path of accelerated growth and development.

II. STRUCTURAL PROBLEMS AND RESOURCE STRESS

Population Pressure on Agriculture

1.8 Most developing countries are characterised by excessive dependence of population on agriculture and low productivity in agriculture. In 2004-05, from the estimated population of 1092 million in India, 71.4 per cent were in rural areas. The estimated labour force was 467 million, and out of this, 348 million (74.61 per cent) lived in rural areas. Of the total workers (measured in terms of Usual Principal and Subsidiary Status (UPSS) in 2004-05), 56.5 per cent worked in agriculture. Of the rural workforce of 341 million, as many as 247 million (72.5 per cent) were engaged in agriculture. These figures should bring home the true nature of population and employment burden on agriculture.

1.9 Over the years, there has been a distinct shift in terms of the sectoral distribution of GDP, but the process of labour force shift has been slow. The share of agriculture in GDP declined from 41.0 per cent in 1972-73 to 20.2 per cent in 2004-05 at constant 1999-2000 prices. However, the share of employment in agriculture (UPSS) declined only from 73.9 per cent in 1972-73 to 56.5 percent by 2004-05 (Table 1.1). The most important structural feature of the agricultural sector in India is the continuous decline in the share of agriculture in total gross domestic product, but very slow diversification of workforce away from agriculture.

Table 1.1
Share of Agriculture in GDP and Employment

Year	Share of Agriculture in GDP at 1999-2000 Prices (%)	Share of Agriculture in Employment – UPSS (%)	Ratio of Worker Productivity in Agriculture to Non-Agriculture	Ratio of Worker Productivity in Non-agriculture to Agriculture
1972-73	41.0	73.9	0.26	3.92
1993-94	30.0	63.9	0.24	4.12
1999-00	25.0	60.2	0.22	4.55
2004-05	20.2	56.5	0.20	5.12

Note : GDP denotes Gross Domestic Product and UPSS denotes Usual Principal and Subsidiary Status.

Source : Central Statistical Organisation (CSO), *National Accounts Statistics*, Various Years and National Sample Survey Organisation (NSSO), *Employment and Unemployment Situation in India*, Various Rounds.

1.10 This structural rigidity has resulted in a large and increasing gap in the per worker earnings in agriculture and non-agricultural sectors. With 56.5 per cent of the national workforce that produces a little more than one-fifth of the GDP, the relative productivity of workers in agriculture is only one fifth of those in non-agricultural occupations and has declined from 26 per cent of non-agricultural productivity in 1972-73 to 20 per cent in 2004-05.

1.11 The concentration of work force in the agricultural sector is much higher in the rural areas indicating that the rural economy continues to remain by and large an undiversified economy primarily dependent on agriculture. This is true despite relatively lower growth of employment in agriculture during recent decades (Table 1.2). A second impact of lack of diversification and continued dependence of increasing population and labour force on limited and non-expanding land resources is continuous decline in the availability of land per agricultural worker.

Table 1.2
Distribution of Workers by Broad Groups of Industry: Rural India

(In Percentages)

	Male			Female		
	Primary	*Secondary*	*Tertiary*	*Primary*	*Secondary*	*Tertiary*
1983	77.5	10.0	12.2	87.5	7.4	4.8
1987-88	74.5	12.1	13.4	84.7	10.0	5.3
1993-94	74.1	11.2	14.7	86.2	8.3	5.5
1999-00	71.4	12.6	16.1	85.4	9.0	5.8
2004-05	66.5	15.5	18.0	83.3	10.2	6.6

Note : Workers denote Usual Principal and Subsidiary Status

Source : NSSO, *Household Consumer Expenditure and Employment Situation in India*, Various Rounds.

Increasing Marginalisation

1.12 The increasing burden of labour force on a slowly contracting cultivable land area leads to increasing number of holdings with lower size. Over the period 1960-61 to 2003, the number of holdings doubled from 51 million to 101 million, while the area operated declined from 133 million hectares to 108 million hectares (Table 1.3). This has resulted in a sharp decline in average size of holding and growing marginalisation. Added to this is the fact that despite land reforms, the landholding pattern continues to be skewed (Table 1.4).

Table 1.3
Certain Key Characteristics of Operational Holdings

		1960-61	1970-71	1981-82	1991-92	2003
		(17th)	(26th)	(37th)	(48th)	(59th)
1.	Number of operational holdings (millions)	50.77	57.07	71.04	93.45	101.27
	1. 1 Percentage increase	—	12.4	24.5	31.5	8.4
2.	Area operated (million hectares)	133.48	125.68	118.57	125.10	107.65
3.	Average area operated (hectares)	2.63	2.20	1.67	1.34	1.06

Source : NSSO, *Some Aspects of Operational Land Holdings in India*, Various Rounds.

Table 1.4
Changes in the Size Distribution of Operational Holdings and Operated Area : 1960-61 to 2002 -03

Category of Holdings	Percentage of Operational Holdings					Percentage of Operated Area				
	1960-61	1970-71	1981-82	1991-92	2003	1960-61	1970-71	1981-82	1991-92	2003
	(17th)	(26th)	(37th)	(48th)	(59th)	(17th)	(26th)	(37th)	(48th)	(59th)
Marginal	39.1	45.8	56.0	62.8	71.0	6.9	9.2	11.5	15.6	22.6
Small	22.6	22.4	19.3	17.8	16.6	12.3	14.8	16.6	18.7	20.9
Semi-Medium	19.8	17.7	14.2	12.0	9.2	20.7	22.6	23.6	24.1	22.5
Medium	14.0	11.1	8.6	6.1	4.3	31.2	30.5	30.1	26.4	22.2
Large	4.5	3.1	1.9	1.3	0.8	29.0	23.0	18.2	15.2	11.8
All Sizes	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source : NSSO, *Some Aspects of Operational Land Holdings in India*, Various Rounds.

Increasing Stress on Irrigation Resources

1.13 Another serious problem is the unequal availability of irrigation across the country and increasing stress on available irrigation resources. It is well known that India is not in an enviable position in the matter of irrigation resources. With 16 per cent of the world's population, the country is endowed with only four per cent of the total available fresh water. Further, within the country the regional distribution of available water resources, including rainfall, is highly uneven. Rainfed areas account for about 60 per cent of the total 142 million hectares of net sown area in the country. The ultimate irrigation potential of the country has been assessed at 140 million hectares (Ninth Five Year Plan). This includes 59 million hectares from major and medium irrigation, and 81 million hectares from minor irrigation. The latter includes 17 million hectares from surface water minor irrigation schemes and 64 million hectares from groundwater resources.

1.14 The exploitable potential is 21.4 million hectares, that is, about 37 per cent of irrigation potential from major and medium irrigation projects. Of this, 13.4 million hectares are locked up in a large number of projects in the pipeline. Despite the Accelerated Irrigation Benefit Programme (AIBP) nothing much seems to have been achieved. Another serious problem relates to underutilisation of irrigation potential created because of lack of field channels and other minor investments. Out of a potential of 94 million hectares created till the end of the ninth plan, only 80 million hectares have been utilised. There is a serious challenge with regard to availability of adequate water for irrigation which is further accentuated because of the growing demand for drinking water and other needs associated with rapid urbanisation and industrialisation. This calls for action for efficient water resource management.

Table 1.5
Net Irrigated Area by Sources

('000 Hectares)

Year	Canals		Tanks	Tube Wells & Other Wells	Other	Total Sources	NIA/NSA (%)
	Government	Private					
1950-51	8300		3600	6000	3000	20900	17.56
1990-91	16973	480	2944	24694	2932	48023	33.41
1995-96	16561	559	3118	29697	3467	53402	37.55
1999-00	16366	195	2574	34581	3046	56761	40.23
2000-01	15789	199	2524	33277	2892	54682	38.75
2000-01 Share (%)	28.87	0.36	4.62	60.86	5.29	100.00	

Note : NIA denotes Net Irrigated Area and NSA denotes Net Sown Area

Source : Ministry of Statistics and Programme Implementation, *Statistical Abstract of India, 2004*.

Table 1.6
Use of Energy for Irrigation by Source across States

State	Percentage of Farmer Households Irrigating Land Using		State	Percentage of Farmer Households Irrigating Land Using	
	Diesel Pumps	Electric Pumps		Diesel Pumps	Electric Pumps
Andhra Pradesh	20	78	Kerala	15	85
Assam	87	4	Madhya Pradesh	34	65
Bihar	97	2	Maharashtra	12	87
Chhattisgarh	28	63	Orissa	61	38
Gujarat	35	63	Punjab	29	71
Haryana	53	47	Rajasthan	61	34
Jammu & Kashmir	22	75	Tamil Nadu	27	72
Jharkhand	81	2	Uttar Pradesh	84	16
Karnataka	7	89	West Bengal	87	13
All India				66	33

Source : NSSO, *Situation Assessment Survey of Farmers, 2003*.

1.15 Groundwater has emerged as the single largest source of irrigation, with all its accompanying problems of serious risks to farmers' investment and degradation of the environment (Table 1.6). Although about 70 per cent of groundwater potential has been utilised, there are serious problems of over-exploitation of ground water. Existing irrigated areas are experiencing serious water stress as both reservoir and ground water resources seem to be

depleting in many parts of the country. An accompanying problem is the energy crisis and power supply shortages even for irrigation purpose. Water use efficiency for irrigation will remain an important issue.

1.16 Unlike irrigated agriculture, rainfed agriculture is characterised by low levels of productivity and low input use. Further, variation in rainfall results in wide variations in yields. A large proportion of the poor in India live in rainfed regions. Over the years, traditional water harvesting systems have been subject to neglect and a large number of them have become defunct. The importance of watershed development in rainfed regions has been recognised for a long time but they have not made much headway except in a few pockets.

Environmental Stress

1.17 A serious source of soil contamination is the growing pollution of river and canal water which in turn is caused by industrial effluents and agricultural run-off with toxic chemicals and heavy metals. These are difficult to remove from drinking water with the help of standard purification facilities. Irrigation with such water results in pollution of crops like vegetables and fruits.

1.18 Soil erosion is the most serious cause of land degradation in India. Estimates show that around 130 million hectares of land (45 per cent of total geographical area) is affected by serious soil erosion through ravine and gully formation, waterlogging and shifting cultivation. It is estimated that India loses about 5,310 million tonnes of soil annually.

1.19 The accumulation of salts and alkalinity affects the productivity of agricultural lands in arid and semi-arid regions, which are under irrigation. The extent of water logging in irrigated command areas has recently been estimated at 2.46 million hectares. Besides, 3.4 million hectares suffer from surface water stagnation. Injudicious use of canal water causes waterlogging and a rise in the water table, which, if left uncorrected, eventually leads to salinisation. Although irrigation and drainage should go hand in hand, the drainage aspect has not been given due attention in major and medium irrigation projects. Waterlogging has been associated with many of the large reservoirs since their inception. Excessive withdrawal of groundwater, besides rendering huge private investments infructuous by depleting water tables and drying up of tubewells, has also been the cause of water salinity in many parts of the country.

1.20 Fertilisers and pesticides are important inputs for increasing agricultural production. Their use has increased significantly since the mid-1960s. Excessive and unbalanced use of these chemicals is fraught with danger. Serious problems have arisen because of unbalanced use of fertilisers. Nitrogen applications tend to be too high in relation to the amount of potassium and phosphate used. This is partly the result of price differentials, and partly due to lack of knowledge among farmers about the need for balanced fertiliser use. The consequence is soil

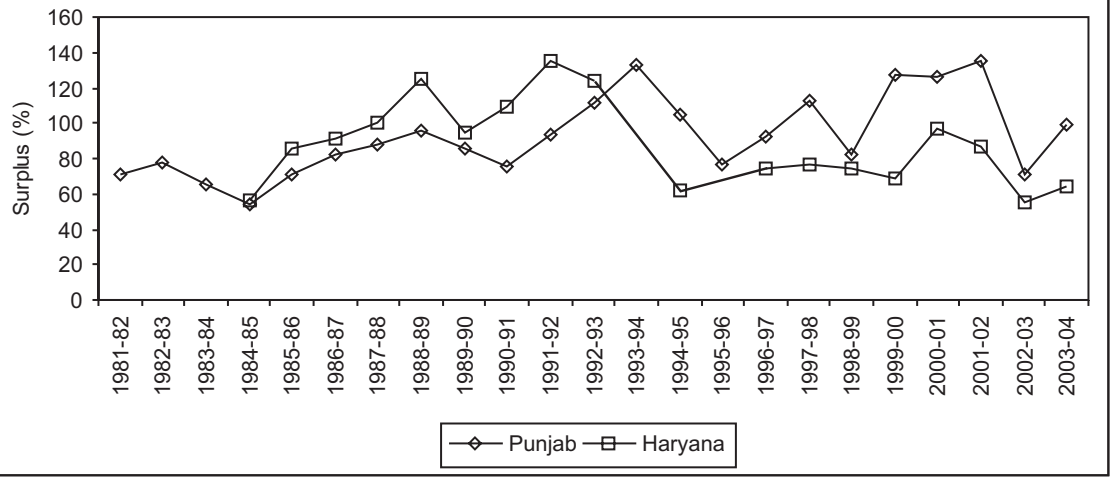
nutrient depletion, which is a major cause of the stagnation of rice yields. A related serious problem emerging out of the use of fertilisers is nitrate contamination of groundwater from heavy nitrogen applications in rice and wheat crops. Nitrate cannot be removed once it has entered the underground water system. Other problems include deficiency of trace elements because of intensive cultivation. All these factors have combined together to reduce soil fertility. Proper crop rotation, judicious combination of organic and chemical fertilisers and suitable agronomic practices will be helpful in this regard.

Technology Fatigue and Declining Profitability

1.21 The 1990's have also seen a gradual deceleration in the growth rate of most crops specially rice and wheat. This is happening even when the use of inputs such as fertilisers is on the increase, indicating increasing inefficiency in input use and decreasing profitability of crop production. For example, cost of cultivation data bring out that the profitability of rice cultivation (as measured by the rate of surplus over cost A2 + family labour) has been declining in recent years in Haryana and stagnant with wide fluctuations in Punjab. The decline is more prominent for wheat cultivation. Figures 1.1 and 1.2 give details.

1.22 The seed-fertiliser technology seems to have exhausted its potential and is no longer cost efficient. A major reason for this is reduced public investment in agricultural research and technology. The policy makers are relying more on technology imports rather than developing indigenous technology.

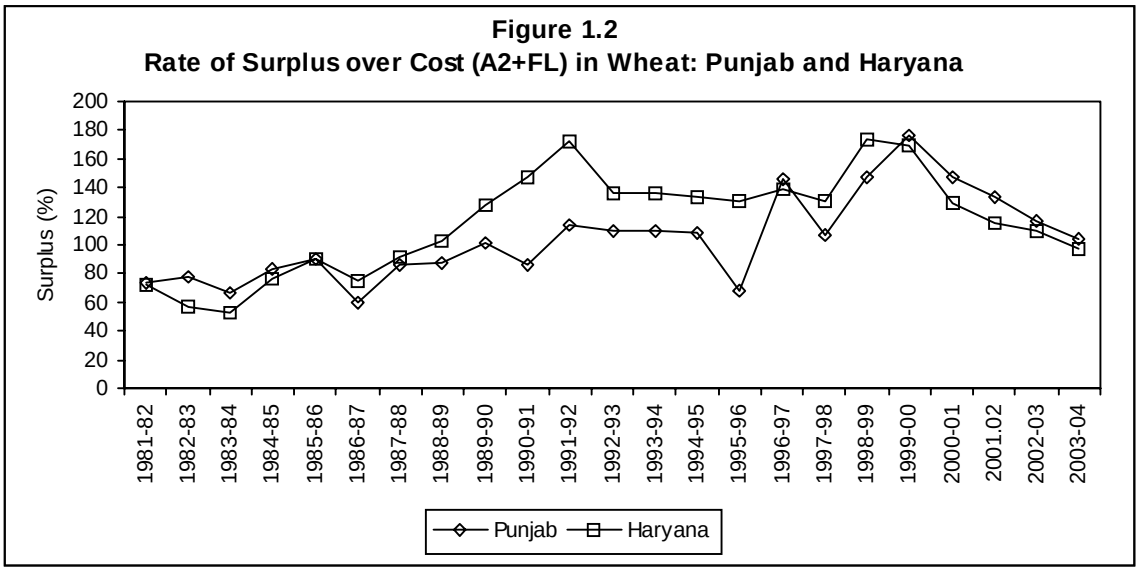
Figure 1.1
Rate of Surplus over Cost (A2+FL) in Paddy : Punjab and Haryana



Note : Data for Haryana in 1993-94 and 1995-96 were not available.

Source : Ministry of Agriculture, *Comprehensive Scheme for Studying the Cost of Cultivation of Principal Crops in India*, Various Years.

Figure 1.2
Rate of Surplus over Cost (A2+FL) in Wheat: Punjab and Haryana

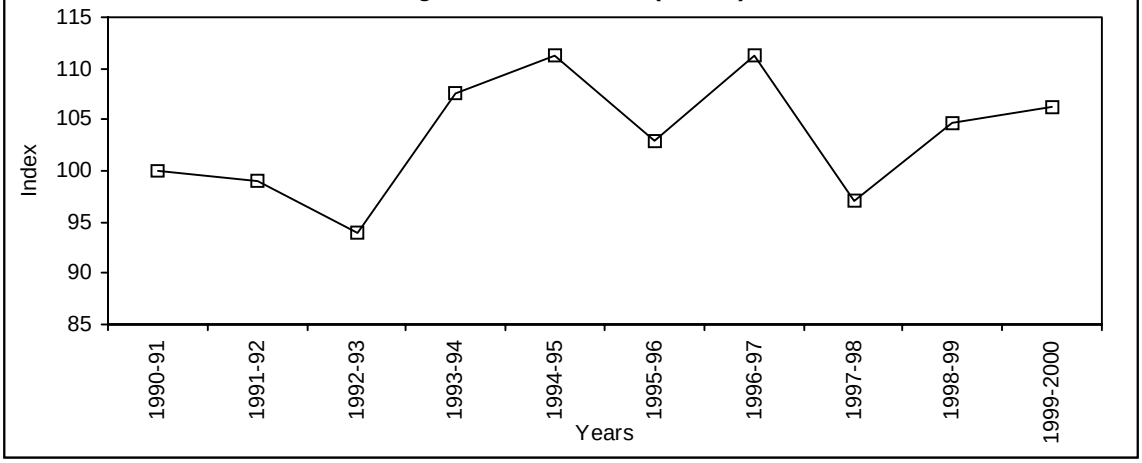


Source : Ministry of Agriculture, *Comprehensive Scheme for Studying the Cost of Cultivation of Principal Crops in India*, Various Years.

Relative Decline in Living Standards of Farmers

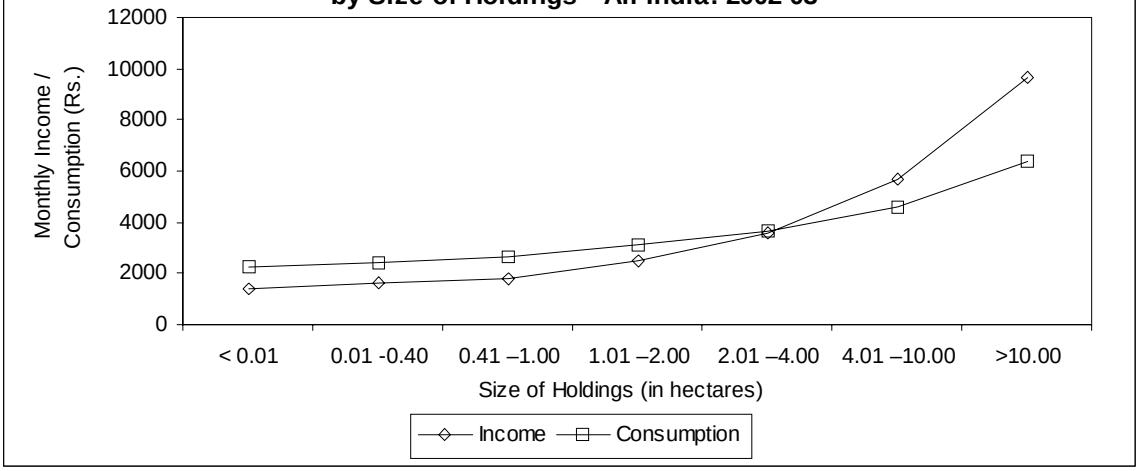
1.23 Figure 1.3 shows that nominal farm business income per hectare of gross cropped area deflated by Consumer Price Index for Agricultural Labour (CPIAL) showed an improvement in the first half of 1990s and thereafter registered a slowly declining trend with wide fluctuations. This has caused the widening of disparities between agricultural and non-agricultural incomes. That the income from agriculture is increasingly becoming inadequate to meet the basic consumption requirements of farm households is clear from Figure 1.4. It is more so for marginal farmers whose incomes fall short of their consumption expenditure. Farm income of even medium-size farm households with two to four hectares of holdings is inadequate to meet their consumption needs.

Figure 1.3
Farm Business Real Income deflated by Consumer Price Index for Agricultural Labour (CPIAL)



Source : Abhijit Sen and M. S. Bhatia, *Cost of Cultivation and Farm Income*, Vol. 14 in *State of the Indian Farmer: A Millennium Study*, Academic Foundation, 2004.

Figure 1.4
Monthly Income and Total Consumption of Farm Households by Size of Holdings – All India: 2002-03



Source : NSSO, *Situation Assessment Survey of Farmers, 2003*.

III. PRODUCTIVITY AND PRODUCTION CRISIS IN AGRICULTURE

Deceleration of Growth in Agriculture

1.24 The most important manifestations of the crisis are deceleration of agricultural growth combined with increasing inefficiency in input use thereby adversely affecting the profitability of agricultural production. The growth of agriculture both in terms of gross product and in terms of output has visibly decelerated during the post-reform period compared with that during the eighties. For example, the growth rate of GDP from agriculture decelerated from 3.08 per cent during 1980-81 to 1990-91 to 2.61 per cent during 1992-93 to 2002-03 at 1999-2000 constant prices (Table 1.7). The annual growth rate for all crops taken together decelerated to 1.58 per cent during 1990-91 to 2003-04 from a growth rate of 3.19 per cent during 1980-81 to 1990-91 (Table 1.9). The growth rates of agriculture both in terms of GDP from agriculture and agricultural output (and yield) have also decelerated in most of the states. Except for the states of Bihar, Gujarat and Orissa, a deceleration took place in the growth rates of agriculture in all the other states during 1993-94 to 2003-04 as compared with 1983-84 to 1993-94. Even in these three states, which had a low base, the growth rates were very low and statistically insignificant in two of them (Table 1.8).

Table 1.7
Growth of Gross Domestic Product (GDP), Sectoral GDP and Per Capita Income

(1999-2000 prices)

Year	Agriculture	Industry	Services	GDP at factor cost	Per capita NNP at factor cost
1980-81 to 1990-91	3.08	5.79	6.54	5.15	2.82
1992-93 to 2002-03	2.61	5.82	7.65	5.85	3.89
1992-93 to 2005-06	2.57	6.05	7.72	6.00	4.10
1950-51 to 2005-06	2.54	5.19	5.40	4.26	1.94

Note : Growth is Compound Annual Growth Rate, NNP denotes Net National Product.

Source : CSO, *National Accounts Statistics*, Various Years

Table 1.8
Growth of Agricultural GSDP and GSDP across States

State	1983-84 to 1993-94 (at 1980-81 Prices)		1993-94 to 2003-04 (at 1993-94 Prices)	
	Agricultural GSDP	GSDP	Agricultural GSDP	GSDP
Andhra Pradesh	3.05	4.58	2.80	5.63
Assam	2.12	3.51	0.51	2.93
Bihar	-0.45***	2.69	2.50	5.34
Gujarat	0.84***	5.00	1.13***	6.19
Haryana	4.86	6.18	1.77	5.96
Himachal Pradesh	3.08	5.89	1.30	6.53
Karnataka	3.54	5.86	3.12	7.10
Kerala	4.40	5.33	-2.00*	4.85
Madhya Pradesh	2.82*	5.21	0.23***	4.14
Maharashtra	5.39*	7.42	1.27	4.92
Orissa	-0.57***	3.39	0.17***	3.96
Punjab	4.62	5.13	2.15	4.13
Rajasthan	3.93	6.19	1.21***	5.32
Tamil Nadu	4.43	7.45	-0.60***	5.08
Uttar Pradesh	2.8	4.66	2.18	3.76
West Bengal	4.45	4.73	3.45	7.03
India	3.05	5.32	2.19	6.01
CV for States	58.72	25.43	102.88	22.75

Note : Growth is Compound Annual Growth Rate. GSDP denotes Gross State Domestic Product. All growth rates are significant at 5 per cent but for * which is significant at 10 per cent and *** which is not significant even at 20 per cent. CV denotes coefficient of variation.

Source : CSO, *Gross State Domestic Product*, Various Years.

1.25 More important, foodgrains growth fell from 2.85 per cent in the 1980s (1980-81 to 1990-91) to 1.16 percent in the 1990s (1990-91 to 2003-04), which was lower than the rate of growth of population of 1.9 per cent during this period. The 1990s was thus the first decade since the 1970s in which the rate of growth of food production fell below the rate of population growth. This is essentially due to the gradual decline in the growth of yield levels, especially of some food crops. While the annual yield growth for all crops taken together decelerated from 2.56 per cent during the eighties to 0.90 per cent during the latter period, for rice the yield growth rate decelerated from 3.47 per cent to 0.99 per cent and for wheat from 3.10 per cent to 1.35 per cent. In the case of cotton, the yield growth rate has gone down from 4.10 per cent during the eighties to -0.69 per cent during the nineties. In this case, the effectiveness of pesticides is declining and the spurious pesticides have failed to prevent complete loss of the crop (Table 1.9).

Table 1.9
Growth of Area, Production and Yield of Major Crops in India: 1980-81 to 2003-04

Crop	1980-81 to 1990-91			1990-91 to 2003-04		
	Area	Prdn	Yield	Area	Prdn	Yield
Rice	0.40	3.56	3.47	0.15	1.14	0.99
Wheat	0.46	3.57	3.10	0.74	2.13	1.35
Coarse Cereals	-1.34	0.40	1.62	-1.58	0.25	1.87
Total Cereals	-0.26	3.03	2.90	-0.25	1.32	1.58
Total Pulses	-0.09	1.52	1.61	-0.87	-0.74	0.16
Foodgrains	-0.23	2.85	2.74	-0.44	1.16	1.11
Sugarcane	1.44	2.70	1.24	1.41	1.22	-0.16
Oilseeds	1.51	5.20	2.43	-1.07	0.18	1.26
Cotton	-1.25	2.80	4.10	0.82	0.15	-0.69
Non-Foodgrains	1.12	3.77	2.31	-0.09	1.20	0.62
All Crops	0.10	3.19	2.56	-0.25	1.58	0.90

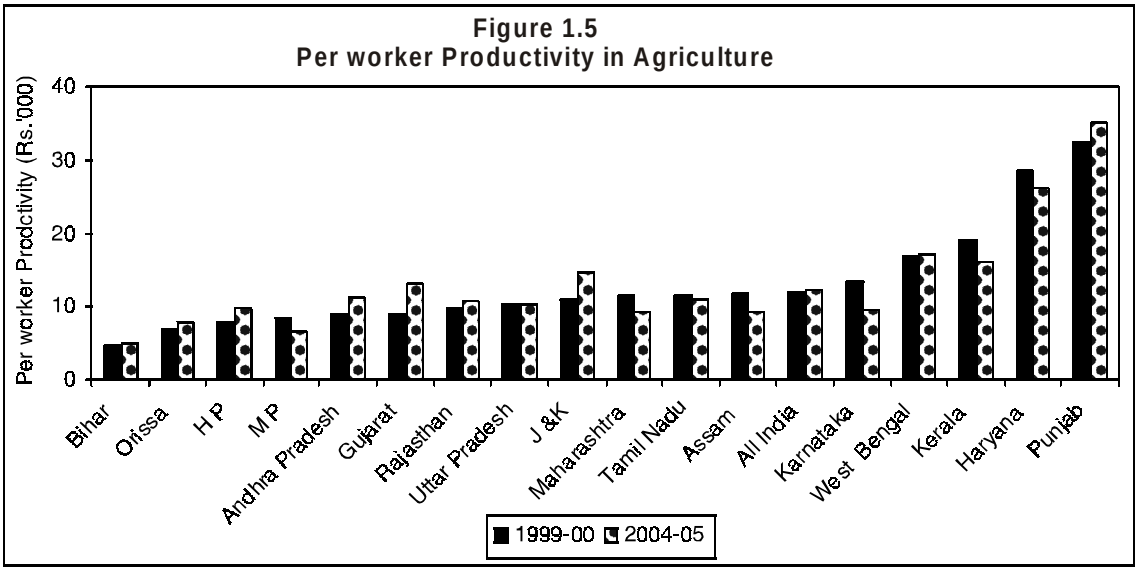
Note : Growth is Compound Annual Growth Rate. Prdn denotes Production.

Source : Ministry of Agriculture, *Area and Production of Principal Crops in India*, Various Years

Wide Regional Disparity in Productivity and Growth

1.26 Regional disparity in agricultural development can be measured in many ways such as, variations in the levels of output, agricultural income, growth rates of agriculture and per worker productivity in agriculture. Variations in state-wise per worker GDP in agriculture are highlighted to portray contrasts in levels of living of agricultural workers across states.

Figure 1.5
Per worker Productivity in Agriculture



Source : NSSO, *Employment and Unemployment Situation in India* and CSO, *Gross State Domestic Product*, Various Years.

1.27 Among states, there are only a few peak achievers in agricultural productivity, as may be seen in Figure 1.5. For instance, Punjab's worker productivity of Rs. 35,000 during 2004-05 was 7.5 times that of Bihar. It is basically this difference in per worker productivity that accounts for large differences in standards of living of agricultural workers across states. The cause for concern is that during 1999-2000 to 2004-05, there was a decline in per worker productivity in agriculture in eight out of seventeen states. This is further exacerbated by growing state level differences in per worker productivity in agriculture and non-agriculture (Table 1.10). The high ratio of agricultural and non-agricultural productivity in relatively more industrialised states like Maharashtra, Gujarat and Karnataka indicates very weak linkages between agricultural and non-agricultural sectors.

Table 1.10
Per Worker Productivity in Agriculture and Non-Agriculture – Various States: 2004-05

State	Agriculture (Rs.)	Non-Agriculture (Rs.)	Non-Agriculture/ Agriculture
Andhra Pradesh	11,245	56,414	5.02
Assam	9,205	49,592	5.39
Bihar	4,862	22,392	4.61
Gujarat	12,934	104,512	8.08
Haryana	26,192	85,128	3.25
Himachal Pradesh	9,796	69,818	7.13
Jammu & Kashmir	14,672	45,400	3.09
Karnataka	9,653	82,316	8.53
Kerala	16,139	56,318	3.49
Madhya Pradesh	6,606	44,980	6.81
Maharashtra	9,130	106,912	11.71
Orissa	7,871	41,341	5.25
Punjab	35,087	70,138	2.00
Rajasthan	10,609	56,830	5.36
Tamil Nadu	10,789	58,793	5.45
Uttar Pradesh	10,367	42,683	4.12
West Bengal	17,113	60,307	3.52
All India	12,371	61,432	4.97
CV for States	57.24	36.27	

Note : CV denotes Coefficient of Variation

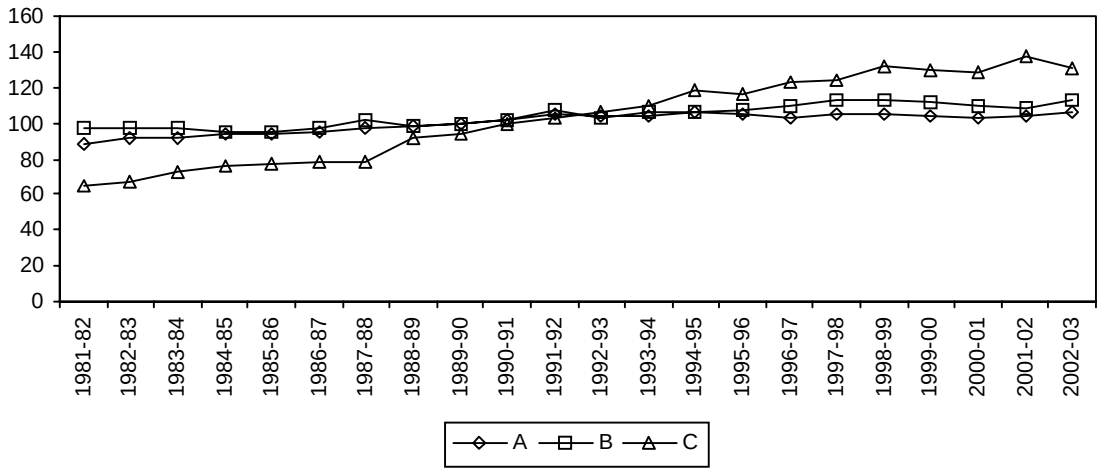
Source : NSSO, *Employment and Unemployment Situation in India*, 2004-05 and CSO, *Gross State Domestic Product*, 2004-05.

Stagnation in Terms of Trade

1.28 Another important manifestation of the crisis in agriculture is the stagnant if not deteriorating terms of trade for agriculture after the introduction of economic reforms. It may be emphasised that a major objective of the economic reforms was to initiate policies that would end discrimination against agriculture and improve its terms of trade *vis-à-vis* other sectors of the economy. The whole set of macro-economic policies such as devaluation of the currency, ending of protection to industry were all expected to benefit tradable agriculture. But this has not happened. Figure 1.6 gives details of barter and income Terms of Trade (TOT). It shows that terms of trade became favourable to agriculture from 1984-85 onwards till 1996-97 and thereafter it more or less stagnated.

1.29 The barter terms of trade calculated through GDP deflator also bring out an improvement in terms of trade in the latter half of 1980s that continued till 1996-97. But TOT stagnated since then. Further, unlike during the 1980s when a notable improvement in terms of trade was accompanied by a significant increase in growth of agricultural output, during the 1990s, a small improvement in terms of trade up to 1996 was accompanied by a decline in output growth rate.

Figure 1.6
Index of Terms of Trade Between Agriculture and Non-agriculture



Notes and Sources :

A denotes barter terms of trade as compiled by the Directorate of Economics and Statistics, Ministry of Agriculture.

B denotes barter terms of trade derived from data in CSO, *National Accounts Statistics*, Various Years.

C denotes income terms of trade derived from data in CSO, *National Accounts Statistics*, Various Years.

1.30 Income terms of trade for agriculture showed an improvement up to 1998-99, but no noticeable improvement thereafter. Further, income terms of trade recorded a much bigger increase during the 1980s as compared with the later period. It is, therefore, clear that the changes in macro-economic policies have failed to turn decisively the terms of trade in favour of agriculture. On the basis of an alternate analysis, the Planning Commission has also come to some sombre conclusions regarding the relative position of agriculture:

> During 1997-2002, agricultural prices declined relative to prices not only of inputs but also non-food consumer goods. As a result purchasing power of agricultural incomes (current price GDP deflated by consumer expenditure deflator) decelerated more than GDP at constant prices. Real farm incomes defined in this way not only show no per capita growth after 1996-97, but also increased variability (Planning Commission, *Mid Term Appraisal of the Tenth Five Year Plan*, 2005).

1.31 The above data show that a perceptible stagnation took place in the fortunes of the agricultural sector during the post liberalisation period. This has happened despite the large increases in administered prices of important agricultural commodities.

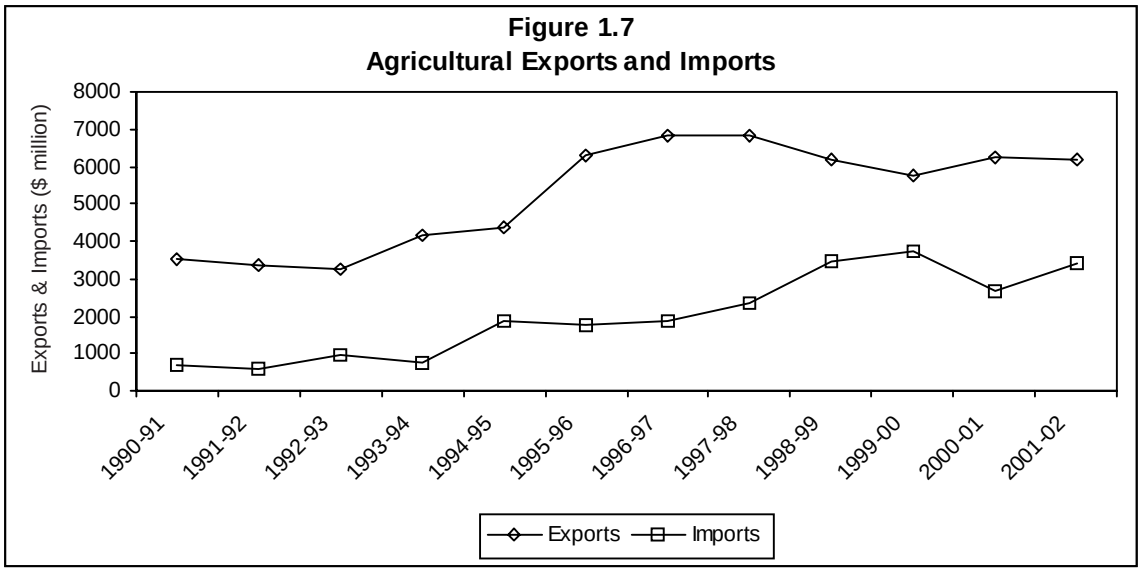
Slowdown of Agricultural Exports

1.32 One of the major expectations from trade liberalisation and exchange rate reforms was that these would result in significant increases in exports of tradable agricultural commodities. Exports of many agricultural commodities did register an increase up to 1996-97 primarily as a result of devaluation of currency and also because of rapid growth of international trade during this period.

1.33 Many commodities such as rice, meat products, processed foods, fish, fruits and vegetables whose demand is more elastic, registered very high rates of growth during the nineties. On the other hand, some traditional exports such as tea, cotton, were not able to sustain their growth rate after liberalisation. Marine products are the largest export earner, even as oil meals were a major item in early 1990s. Recently, oil meal exports have suffered and cotton exports have collapsed (due to shortage of supplies). Sugar has also fared similarly, although its exports increased from 2001 onwards. Exports of spices have shown some buoyancy (G. S. Bhalla, *Globalisation and Indian Agriculture*, Vol.19 in *State of the Indian Farmer: A Millennium Study*, Academic Foundation, 2004).

1.34 The level of exports flattened after 1997 primarily because of large deceleration in the growth of international trade in agriculture consequent to the East Asian crisis. Simultaneously, international prices started falling for most of the commodities that made Indian exports non-competitive. Exports also became unviable because of large hikes in administrative prices of many commodities (Figure 1.7).

Figure 1.7
Agricultural Exports and Imports



Source: Ministry of Finance, *Economic Survey*, Various Issues.

1.35 The trade scenario in agricultural commodities after 1991 reflects the impact of economic liberalisation and steep devaluation of the rupee. Although the country was able to accelerate the growth rate of agricultural exports, the boom was short lived. After 1996, there was a deceleration in export growth and imports tended to increase. It is only since 2002-03 that agricultural exports have started rising a little faster.

Impact of Deceleration in Agricultural Growth on Employment

1.36 Another serious dimension of the crisis was the deceleration in the overall employment growth in the economy from 1.74 per cent during 1983 to 1993-94 to 1.08 per cent during 1993-94 to 2004-05. This had its impact on the absorption of labour from agriculture into other activities. The growth rate of agricultural employment during the period declined from 1.41 per cent to only 0.63 per cent indicating a steep deceleration in growth of employment in agriculture in the post-liberalisation period. Employment in non-agricultural occupations too did not increase sufficiently.

1.37 Second, because of a sharp increase in labour force, there was a sharp increase in open unemployment during 1993-94 to 2004-05. According to National Sample Survey (NSS), there were 3.98 million unemployed in India in 1973-74 and their number had increased to 7.49 million by 1993-94 and to as many as 13.6 million by 2004-05. In the meantime, the incidence of unemployment (defined as the ratio of unemployed persons to the labour force) increased from 1.64 per cent in 1973-74 to 1.96 per cent in 1993-94 and to 2.39 per cent in 2004-05.

IV. REFORM POLICIES AND THE FARMING COMMUNITY

Neglect of Agriculture

1.38 The available evidence both from macro and micro level suggests significant decline in the public agricultural support systems including public investment in agriculture. This led to unprecedented distress that has been one of the causes underlying the rising trend in the incidence of farmers' suicides. The crisis in agriculture was well under way by late 1980s and the economic reforms beginning with 1990s have deepened it. The crisis in agriculture in the post-reform period has become pervasive. The manifestation of the crisis is felt in different forms in different agro-climatic and institutional contexts. The absence of irrigation facilities has forced farmers in dry regions to incur serious debts by investing in unstable ground water resources. The growing pressure on land in command areas has resulted in rapid increase in the highly exploitative tenancy system. The volatile prices of commercial crops, including certain plantation crops, often triggered by cheap imports have caused farmers to suffer ruination because of agricultural trade liberalisation. The exposure to externally engineered crops with the hope of high yields, with scant regard to their suitability to domestic conditions has resulted in high levels of instability in output that has led to loss of livelihoods.

Trade Liberalisation, Structural Adjustment, Targeted Credit and Agriculture

1.39 Agricultural trade has been gradually liberalised beginning with mid-1990s. All-India product lines have been placed under Generalised System of Preferences (GSP). By 2000, all agricultural products were removed from Quantitative Restrictions (QRs) and brought under tariff system. Canalisation of trade in agricultural commodities through state trading agencies was virtually removed and most of the products are brought under Open General Licensing (OGL).

1.40 Internally, the structural adjustment process had far reaching implications for Indian agriculture. Fiscal reforms adversely affected the agricultural input support system and institutions. Much of the Green Revolution initiated in mid-1960s in India was built upon a system of state supported incentives, subsidies, and substantial public investment in agricultural infrastructure. The National Seed Corporation established in 1963, and later, a network of State Seed Corporations established after 1975, had virtual monopoly and responsibility of developing and distributing improved and high yielding variety (HYV) seeds in collaboration with the agricultural universities. Trade in seeds was opened to private trade in 1980s and by 1991 hundred per cent foreign equity was allowed in the seed industry and restrictions on the import of seeds were relaxed. The liberalisation of seed production and distribution has led to two serious consequences. First, the supply of genuine seeds has declined and in the absence of proper regulations, spurious seeds have found a flourishing market. Second, prices of seeds especially for commercial crops and fruits and vegetables have risen disproportionately. There is a need to increase the supply of genuine seeds by rejuvenating the public seed producing

system and promoting seed production through public-private partnership. Appropriate regulatory mechanisms should be put in place to check the supply of spurious seeds.

1.41 It must be emphasised that a substantial proportion of the Indian agriculture is a 'small farm' based economic activity. It is increasingly moving from a system of farmers' own-resource-based subsistence farming to purchased-input-based intensive commercial farming. This requires timely and assured credit at reasonable interest rates.

1.42 The share of Gross Capital Formation (GCF) in Indian agriculture in total GCF started to decline since the early 1980s. By 1995-96, it declined to 6.3 per cent from 16.1 per cent during 1980-81. There was a steep decline in the share of public sector GCF in agriculture to 17.3 per cent in 1999-00 from 43.2 per cent in 1980-81 (Table 1.11). Contrary to expectations, private investment failed to compensate for the drastic decline in public sector investment. Although private investment recorded a high growth during 1980-81 to 1999-00, its growth rate sharply decelerated during 1999-00 to 2004-05. The consequence was that the overall GCF in agriculture as a share of total capital formation in the country declined sharply from 16.1 per cent in 1980-81 to 9.2 per cent by 2000-01. Simultaneously, a drastic reduction took place in the share of developmental expenditure on rural development from 11.7 per cent of GDP in 1991-92 to 5.9 per cent in 2000-01.

Table 1.11
Gross Capital Formation (GCF) in Agriculture at Current Prices

(1999-2000 Series)

Year	Total GCF (Rs. Crore)	Public GCF Rs. Crore)	Private GCF Rs. Crore)	Share of Public (%)	Share of Private (%)	GCF in Agr. as per cent of Total GDP	GCF in Agr. as per cent of Agr. GDP	GCF in Agr. as per cent of Aggre-gate GCF
1980-81	4342	1876	2466	43.2	56.8	3.0	9.2	16.1
1990-91	15839	3586	12253	22.6	77.4	2.8	10.5	11.5
1995-96	17392	5952	11440	34.2	65.8	1.7	6.9	6.3
1999-00	50151	8670	41481	17.3	82.7	2.6	11.2	9.8
2000-01	46432	8176	38256	17.6	82.4	2.2	10.3	9.2
2001-02	60366	10353	50013	17.2	82.8	2.6	12.4	11.1
2002-03	61883	9564	52319	15.5	84.5	2.5	13.1	10.1
2003-04	61827	12218	49609	19.8	80.2	2.2	11.6	8.4
2004-05	70786	13610	57176	19.2	80.8	2.3	13.2	7.6
2005-06	83952	—	—	—	—	2.4	14.1	7.3

Note : Agr denotes Agriculture GDP denotes Gross Domestic Product

Source : CSO, *National Accounts Statistics*, Various Years

1.43 The recent *Situation Assessment Survey of Farmers* of the NSS also gives information on consumption of farmer households during 2003. The 59th Round of the NSS also gives estimates for household consumer expenditure and employment and unemployment for all households in the rural and urban areas for 2003. It is possible to use these two sources to obtain comparable results for all rural households and for farmer households (Table 1.12). The average Monthly Per Capita Expenditure (MPCE) of farmer households at the all India level during the year 2003 was Rs. 503 (9.3 per cent less) as compared to Rs. 554 of all rural households and moderately higher than the rural poverty line of Rs. 349.

Table 1.12
MPCE for Farmer Households and All Rural Households by Item Group: All-India

Item Group	MPCE (Rs.)		Item Group	MPCE (Rs.)	
	Farmer HHs	All rural HHs		Farmer HHs	All rural HHs
Cereals & cereal products	101.27	99.17	Fuel and light	46.58	51.20
Pulses & their products	16.57	18.06	Clothing & Footwear	42.94	44.43
Milk & milk products	48.71	44.76	Education	16.83	16.26
Edible oil	23.00	24.62	Medical	34.40	38.87
Egg, fish & meat	15.70	17.93	Misc. consumer goods	24.02	30.82
Vegetables	30.60	35.29	Misc.consumer services	25.54	37.98
Fruit	6.60	9.98	Rent	0.40	2.38
Sugar, salt & spices	21.42	24.30	Taxes & cesses	0.99	1.11
Beverages, refreshments	14.87	24.45	Durable goods	18.57	18.24
Food total	278.74	298.57	Non-food total	224.09	255.59
Pan, tobacco & intoxicants	13.83	14.28	All items	502.83	554.15

Note : MPCE denotes Monthly Per Capita Expenditure, HHs denotes Households, Misc. denotes Miscellaneous.

Source : NSSO, *Consumption Expenditure of Farmer Households, 2003*, 59th Round, Report No.495.

Table 1.13
Number of Poor and Undernourished Persons in Various Farm Categories in Rural India

(In Million)

Year	Agricultural		Farm Classes									
	Poor	Under-nouri-shed	Marginal (<1 ha)		Small (1-2 ha)		Semi-Medium (2-4 ha)		Medium (4-10 ha)		Large (>10 ha)	
			Poor	Under-nouri-shed	Poor	Under-nouri-shed	Poor	Under-nouri-shed	Poor	Under-nouri-shed	Poor	Under-nouri-shed
1983-84	44.6	33.7	131.2	98.0	41.1	25.8	29.5	18.0	15.0	9.2	2.8	1.9
1987	40.0	30.2	115.1	84.0	29.6	18.8	16.6	12.3	7.2	5.3	1.2	0.7
1993-94	39.5	39.2	123.5	105.5	26.7	24.7	15.0	12.4	8.4	7.4	0.8	1.0
1999-00	36.5	42.8	95.2	122.0	16.4	28.7	8.5	18.7	3.2	10.3	0.0	0.7

Source : Pradhuman Kumar, "Empowering the Small Farmers Towards a Food Secure India," Ramesh Chand (ed.) *India's Agricultural Challenges: Reflections on Policy, Technology and Other Issues*, Centad, New Delhi, 2005, pp. 223-224.

1.44 If one goes by the consumption expenditure based head-count estimates of poverty, one may not be in a position to perceive the stress on agricultural communities, but if one looks at the undernourishment, the stress becomes apparent. Table 1.13 gives data separately on the number of poor and undernourished persons in various farm categories in rural India. What is of significance is that even as the head-count of persons who are poor is coming down, there has been a spurt in the number of undernourished persons across all farming classes, especially in the 1990s. This clearly brings out the adverse impact of reforms on the health conditions of the farming community.

V. SUMMING UP

1.45 Since late 1990s, all regions in India have experienced a deceleration in their agricultural growth. But, the adverse impact of the slowdown is especially serious in the rainfed regions of India. Although all sections of peasantry have been adversely affected by the deceleration in agricultural growth rates, it is the small and marginal farmers with limited resources who have been hit the hardest. One more factor that has exacerbated the situation is the drive towards diversification in the rainfed areas in the western and southern regions of India. Diversification to high value commercial crops has no doubt brought prospects of a big increase in yields and income of farmers, but along with it come high volatility and risks. Diversification has also necessitated borrowing of large amounts of money, increasingly from non-institutional sources at exorbitant rates of interest. Since rainfed areas are prone to frequent failure of rainfall and to droughts leading to large fluctuations in output, many farmers are driven to distress and desperation in case of crop failure.

1.46 Comprehensive short and long term measures are required to address the numerous problems associated with India's agrarian crisis. In the short run, concrete measures have to be undertaken to make available timely and adequate institutional credit at reasonable rates of interest for undertaking productive expenditure including basic consumption needs in the lean period, and to reduce the debt burden of vulnerable sections of peasantry. A suitable system of agricultural insurance to face growing risks, and relief and rehabilitation through well conceived programmes to meet the felt needs of farm households in diverse agro-economic conditions has to be designed and executed, besides remunerative price and market support. In the long-run, rejuvenation of the Indian agriculture lies in addressing basic structural, institutional and technological factors as much as restructuring public support systems in the face of growing exposure to local and global market forces. In the context of rapid marginalisation of agricultural holdings, the focus of strategy for revival of agriculture should be on the small-farmer economy. Land reforms, particularly tenancy reforms, with a view to reducing landlessness and to strengthening small cultivators are still relevant. A time has come to encourage formation and institutionalisation of farmers' groups to enable small and marginal farmers to overcome their disabilities in accessing assured credit, appropriate technology, favourable market prices and insurance against growing risks. Small and marginal farmers have to be organised in the form of collectives and self-help groups in order to respond effectively to the current agrarian crisis. Strengthening of these institutions, along with the conventional cooperatives, is essential for improving the institutional credit flow as well as better accessing of appropriate technology, extension services and improved marketing capability. There is a need to restructure subsidies towards facilities that are needed more by small and marginal farmers. The declining trend in public investment should be reversed, and public investment in research and development with adequate priority to rainfed agriculture should receive due priority. Public institutions like seed corporations should assume greater role in making available critical inputs like seeds and extension services. Finally, there is no way that small and marginal farmer households can improve their living standards by depending solely on agricultural income. There is a need for diversification into off-farm and non-farm activities, which should increasingly account for their household income. Rural farm – non-farm linkages still remain at a very low level, and require appropriate policy support to gain momentum.

CHAPTER 2

AGRICULTURAL CREDIT IN INDIA

I. INTRODUCTION

2.1 Policy makers in India have long recognised the need to provide short and long term institutional credit to agriculture at reasonable rates for meeting farmers' production needs. This recognition came primarily as the moneylenders and other non-institutional sources charged exorbitant rates of interest to farmers who often had to mortgage, and sometimes, sell their lands to clear their debts.

2.2 After independence, credit institutions serving the agricultural sector were developed in several phases. In the first phase from 1947 to 1969, cooperative agencies were the primary vehicle that provided credit. During the second phase from 1969-75, a major development in the area of rural credit was the nationalisation of banks in 1969. The commercial banks were also assigned an important role in providing agricultural credit to supplement credit by cooperatives. The third phase, 1975-1990, saw the establishment of Regional Rural Banks (RRBs) in 1975 to provide credit to small and marginal farmers and weaker sections of society. During this phase, introduction of the concept of priority sectors in 1985, whereby the banks were enjoined to lend 18 per cent of their total credit to agriculture, was an important step for extending credit to agriculture. In the fourth phase, beginning with the financial sector reforms of the 1990s, emphasis shifted in favour of prudential regulations, and the focus on social banking got diluted. As a result, the share of agriculture in total bank credit of the scheduled commercial banks fell below the 18 per cent target. In recent years, in response to the agrarian crisis, there have been a number of initiatives to expand credit to agriculture such as the doubling of credit within three years, the issue of Kisan Credit Cards (KCCs), the introduction of institutional agencies such as agency banking and extension of the model of Self-Help Groups (SHGs) to farmers, the revitalisation of the cooperative credit structure and the Government's acceptance of the principle of inclusive banking.

2.3 Institutional credit expanded rapidly in the post bank nationalisation period from Rs.1, 675 crore in 1975-76 to Rs.1,80,486 crore in 2005-06 (Table 2.1) and the rate of growth was even higher than the growth rate of Gross Domestic Product (GDP) originating in agriculture. Despite this growth, the credit needs of agriculture have not been met fully and an overwhelming number of farm households have not been able to borrow from institutional sources.

2.4 There has been a major shift in the relative importance of short-term and medium and long-term credit to agriculture. While short-term credit has remained the dominant component of total credit, its relative importance declined from 70.3 per cent in 1975-76 to 58.1 per cent in 2005-06. Even more striking, the relative importance of cooperative and commercial bank credit to agriculture was reversed (Figure 2.1). During 1975-76 to 2005-06, the share of cooperatives in total credit to agriculture declined from 69.5 per cent to 21.8 per cent, whereas the share of scheduled commercial banks increased from 24.2 per cent to 69.5 per cent.

2.5 Issues relating to agricultural credit include the poor performance of credit cooperatives and regional rural banks, the inability of commercial banks to meet their targets for agricultural lending, and the high cost of rural banking. The result has been the continued dependence of farmers on non-institutional credit and the inability of small farmers to obtain timely and adequate institutional credit. This chapter provides an overview of institutional credit flow to agriculture covering the above issues and specifically addressing the following questions: What is the efficacy of agricultural credit delivery system? How have the scheduled commercial banks, Regional Rural Banks (RRBs) and cooperative banks fared in meeting the credit needs of farmers? Are the scheduled commercial banks fulfilling the agricultural lending target? What is the progress of Rural Infrastructure Development Fund (RIDF)? What are the prospects of new institutional innovations and instruments such as Self-Help Group (SHG)-Bank linkage, agency banking, mobile banking and Kisan Credit Card (KCC)? This chapter also very briefly analyses the impact of the government policy of doubling agricultural credit introduced in 2004-05.

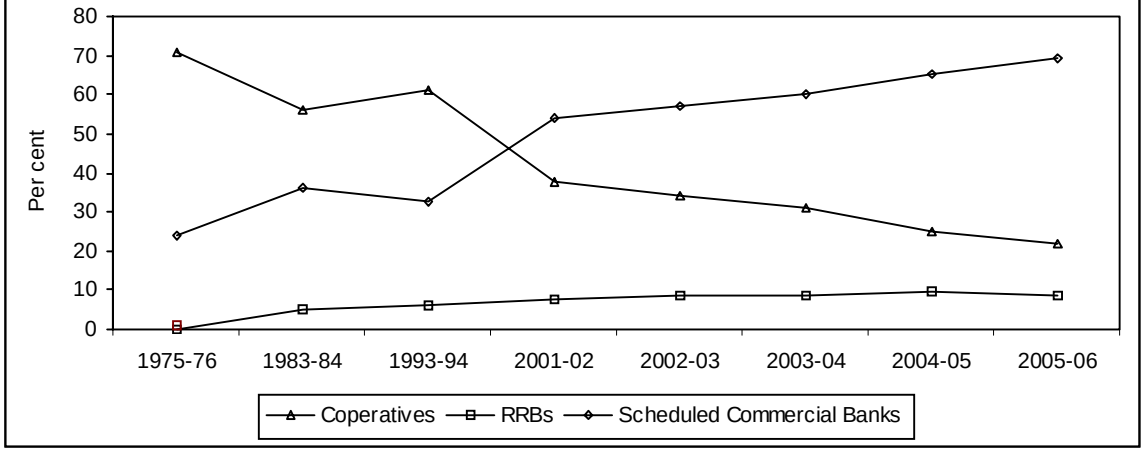
Table 2.1
Source-wise Institutional Credit Flow to Agriculture: 1975-76 to 2005-06

(Rs. in Crore)

Agency	1975-76	1983-84	1993-94	2001-02	2002-03	2003-04	2004-05	2005-07
A. Short-Term	**1177**	**3335**	**11271**	**40509**	**45586**	**54977**	**74064**	**105350**
Cooperatives	881	2158	7839	18787	19668	22640	27157	34930
Regional Rural Banks	2	120	732	3777	4775	6088	10010	12712
Scheduled Commercial Banks	213	872	2700	17904	21104	26192	36793	57640
Other Agencies			0	41	39	57	104	68
B. Medium & Long-Term	**498**	**1909**	**5223**	**21536**	**23974**	**32004**	**51245**	**75136**
Cooperatives	305	780	2278	4737	3968	4235	4074	4474
Regional Rural Banks	2	143	245	1077	1295	1493	2394	2511
Scheduled Commercial Banks	192	986	2700	15683	18670	26249	44688	67837
Other Agencies	—	—	0	39	41	27	89	314
C. Total Credit	**1675**	**5244**	**16494**	**62045**	**69560**	**86981**	**125309**	**180486**
Cooperatives	1186	2938	10117	23524	23636	26,875	31231	39404
Regional Rural Banks	2	263	977	4854	6070	7581	12404	15223
Scheduled Commercial Banks	405	1885	5400	33587	39774	52441	81481	125477
Other Agencies	82	185	0	80	80	84	193	382

Source : For Commercial Banks from Reserve Bank of India (RBI); for Cooperatives and Regional Rural Banks from National Bank for Agriculture and Rural Development (NABARD).

Figure 2.1
Share of Cooperatives, RRBs and Scheduled Commercial Banks in Total Agricultural Credit: 1975-76 to 2005-06



Note : RRBs denote Regional Rural Banks.

Source : As in Table 2.1.

II. COOPERATIVE CREDIT

2.6 Historically, cooperative societies have played a vital role in the provision of institutional credit to the agricultural sector. With the entry of commercial banks in rural areas, the share of cooperative credit in total agricultural credit had gone down. It fell from 70.8 per cent in 1975-76 to only 21.8 per cent in 2005-06 (Table 2.2). While the share of cooperatives in short-term credit in the form of crop loans declined from 74.9 per cent to 33.2 per cent; its share in long-term credit declined steeply from 61.2 per cent to 6.0 per cent. Concurrently, commercial banks became the dominant source of credit to the agricultural sector.

Table 2.2
Share of Cooperatives in Total Agricultural Credit in India

(In Percentages)

Type of Loan	1975-76	1983-84	1993-94	2001-02	2002-03	2003-04	2004-05	2005-06
Crop Loan	74.9	64.7	69.6	46.4	43.1	41.2	36.7	33.2
Term Loan	61.2	40.9	43.6	22.0	16.6	13.2	8.0	6.0
All Loans	70.8	56.0	61.3	37.9	34.0	30.9	24.9	21.8

Source: NABARD.

2.7 Although the share of cooperative credit is now much lower than that of commercial banks, the reach of cooperative credit societies is much wider. Cooperative credit societies have more

than twice the number of rural outlets and four times more accounts than those of scheduled commercial banks and RRBs put together. Cooperative credit societies provide small loans to small borrowers in rural areas. In March 2003, while the public sector banks had 164 lakh accounts with an average loan size of Rs.31,585, the cooperative societies had 639 lakh account holders whose average borrowing was only Rs.6,637 (*Report of the Task Force on Revival of Cooperative Credit Institutions*, 2005, Chairman: A. Vaidyanathan).

2.8 The failure of Primary Agricultural Credit Societies (PACS) and Central Cooperative Banks (CCBs) is due to the fact that they have been unable to raise their own resources through deposit mobilisation. Instead, they depend on external funds from the government or higher layers of cooperatives. In 2003-04, more than half of PACS reported losses. By March 2003, the accumulated losses of PACS were estimated at Rs. 4,595 crore. This deprived them of their independence and made them inefficient.

Table 2.3
Financial Results of the Cooperative Credit Societies: All India

Tier		2000-01	2001-02	2002-03	2003-04	2004-05
I. State Cooperative Banks	Total (No.)	29	30	30	31	31
	In Profits (No.)	24	24	25	27	26
	In Losses (No.)	5	6	5	4	4
	With eroded net worth (No.)	6	9	8	NA	NA
	Total Accumulated losses (Rs. Crore)	492	567	281	262	274
II. District Central Cooperative Banks	Total No.	367	368	367	365	367
	No. in Profits	247	243	237	263	296
	No. in Losses	120	125	130	102	71
	No. that have eroded net worth	139	139	144	NA	NA
	Total Accumulated losses (Rs. Crore)	3177	3770	4401	4981	4723
III. Primary Agricultural Credit Societies*	Total No.	88798	88803	112309	NA	108338
	No. in Profits	46807	45292	58683	NA	47015
	No. in Losses	41991	43511	53626	NA	61323
	Total Accumulated losses (Rs. Crore)	2112	NA	4595	NA	20

Note : * Primary Agricultural Credit Socities may not present a true picture of the state of affairs because income recognition and prudential norms are not applied.

Source : Ministry of Finance, *Task Force on Revival of Rural Cooperative Credit Institutions*, 2005 and NABARD.

2.9 Low recovery rates and mounting overdues have clogged the process of recycling of credit by cooperatives, impaired their ability to avail of refinance facilities from the National Bank for Agriculture and Rural Development (NABARD), increased transaction costs and more importantly, have deprived potential borrowers of the opportunity to avail of credit facilities from the cooperatives. As a result, cooperatives have been losing their capacity to meet the growing credit needs of agriculture.

2.10 The regional distribution of cooperative credit is highly uneven. In general, the agriculturally advanced states account for a disproportionately large share of cooperative credit. During 2002-03, 78 per cent of the total short term credit of cooperatives was accounted for by the northern, western and southern regions of India and seven states (Andhra Pradesh, Gujarat, Haryana, Maharashtra, Kerala, Punjab and Tamil Nadu) received as much as 70 per cent of the loans advanced by the PACS.

Revamping the Cooperative Credit Structure

2.11 Several committees have gone into the question of reorganising the cooperative credit structure in the country. Recently, the *Task Force on Restructuring of Cooperative Credit Institutions* (2005) underlined the need to eliminate state governments' interference in the functioning of cooperatives. It recommended a revival package of about Rs.15,000 crore for retiring the share capital contributed to cooperative societies by state governments and for cleaning up their balance sheets. The report also recommended capacity building, human resource development, institutional restructuring to ensure democratic functioning, and improving the regulatory regime to empower the Reserve Bank of India (RBI) to enforce prudent financial management.

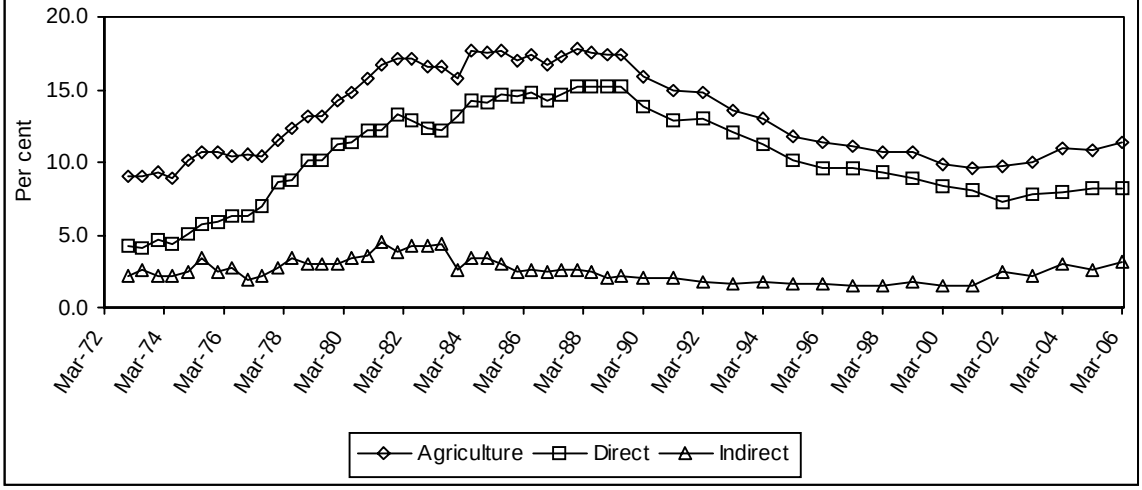
2.12 The Task Force also recommended that rural financial cooperatives should be dealt with as a distinct and separate class and be made fully democratic, self-governing, self-reliant organisations for mutual thrift and credit. It also suggested that cooperatives be reorganised primarily as credit or marketing societies on the pattern of the National Dairy Development Board (NDDB). Implementation of the Task Force recommendations would go a long way towards reviving cooperative credit societies. The Government of India has accepted most of the recommendations of the Task Force and has already put in place a revival package for the short-term cooperative credit structure. As for the long-term cooperative credit structure, Government's decision is awaited on the recommendation of the Task Force–II.

III. COMMERCIAL BANKS

2.13 The expansion of commercial banks credit to agriculture has been impressive, particularly after bank nationalisation. The share of agricultural credit in total commercial bank lending rose from around 10 per cent in the mid-1970s to a peak of about 18 per cent (the official target set for public sector banks) at the end of the 1980s. Thereafter, it steadily declined to a low of

around 11 per cent during the period 2004 to 2006 (Figure 2.2). Even then, commercial banks accounted for 69.5 per cent of total institutional credit to agriculture in 2005-06, up from 24.2 per cent disbursed in 1975-76 (Table 2.1).

Figure 2.2
Share of Agricultural Credit in Total Scheduled Commercial Banks' Credit



Source : Computed by Economic and Political Weekly Research Foundation based on RBI, *Basic Statistical Returns of Scheduled Commercial Banks in India*, Various Years.

2.14 When the banks do not fulfil the 18 per cent target they have the option of investing the shortfall in the Rural Infrastructure Development Fund (RIDF). For some time, many commercial banks have availed of this soft option. This option has been made less attractive because of the low rates of interest on RIDF deposits. In actual operations, however, the entire shortfall does not flow into RIDF.

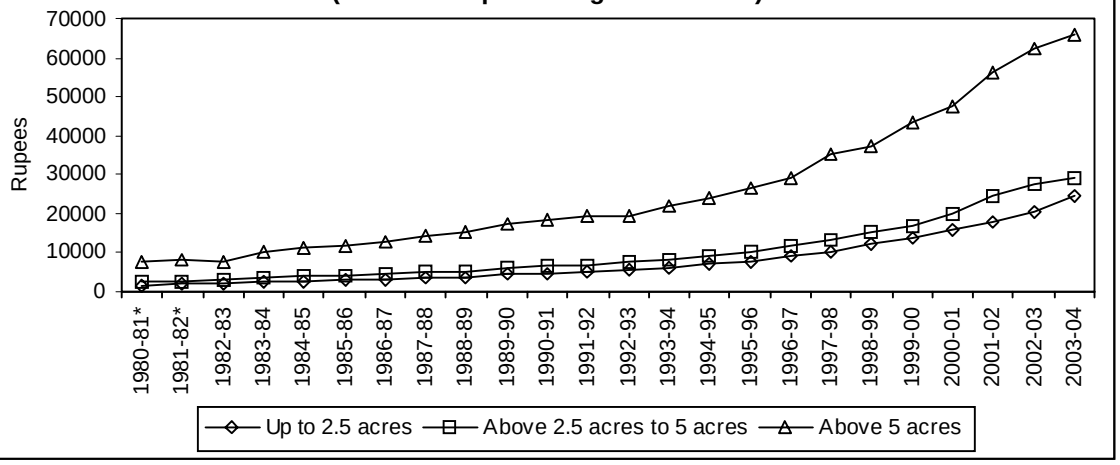
Declining Rural Branches and Accounts

2.15 The policy of branch expansion to rural areas was abandoned in the mid 1990s and the banks were allowed to convert their non-viable rural branches into satellite offices and to close zonal bank branches. RRBs were allowed to relocate their loss-making branches to new places even outside rural areas. As a result, rural branches have steadily come down from 32,981 (51.2 per cent of the total) in March 1996 to 31,967 (45.7 per cent of the total) by March 2005.

2.16 What is more, during the same period, a sharp decline has taken place in the absolute number of agricultural loan accounts. Their numbers declined from 277.4 lakh in March 1992 to 198.4 lakh in March 2001, but started rising thereafter. The trend in the share of agriculture in total outstanding bank credit is similar (Figure 2.2). Data also show that an increasingly large share of agricultural credit is going to farm sizes of more than five acres. Also, the average

amount of loans outstanding per account has grown much more rapidly in the case of farm sizes of more than five acres and above as compared to small and marginal farm sizes (Figure 2.3).

Figure 2.3
Size of Holdings and Average Amount Outstanding Per Loan Account
(Short-term plus Long-term Loans)



Source: RBI, *Handbook of Statistics on the Indian Economy, 2005-06*.

Land Size and Bank Credit

2.17 The distribution of credit by land size shows that the share of marginal farmers increased marginally from 28 per cent in 1981-82 to 29 per cent by 1991-92 but declined to 25 per cent in 2003-04. The share of small farmers increased from 21 per cent in 1981-82 to 25 per cent in 1991-92, and remained at that level thereafter. The share of cultivators above five acres fell from 52 per cent in 1981-82 to 46 per cent in 1990-91 but rose again to 52 per cent in 2003-04.

2.18 During 1991 to 2002, the share of marginal farmers in total area operated has increased whereas their share in total credit has declined. The share of credit to small farmers has risen more or less in proportion to the area operated by them. On the other hand, the share of large farmers in total credit has gone up although their share in area has remained the same (Table 2.4). The decline in the share of credit of marginal farmers calls for urgent steps to strengthen their absorptive capacity along with an increased credit flow. There is also a need to expand the share of small farmers in total credit disbursement.

Table 2.4
Distribution of Scheduled Commercial Banks' Outstanding Credit to Farmer Households According to Size of Holdings

Year (at end June)	Up to 2.5 Acres		Above 2.5 Acres Upto 5 Acres		Above 5 Acres	
	No of Accounts	Amount	No of Accounts	Amount	No of Accounts	Amount
1981-82	50.59	27.77	24.61	20.66	24.80	51.57
1991-92	45.42	28.79	31.43	24.87	23.15	46.34
2002-03	38.90	22.12	30.17	25.52	30.93	52.36
2003-04	42.83	24.94	31.10	23.02	26.07	52.04
	Ratio of share of credit disbursed to share of area operated					
1981-82		1.02		0.82		1.08
1991-92		0.54		0.75		1.42
2002-03		0.41		0.80		1.40

Source : RBI, *Handbook of Statistics on the Indian Economy, 2005-06* and National Sample Survey Organisation (NSSO), *Some Aspects of Operational Land Holdings in India*, Various Rounds.

Regional Disparities in Credit Disbursement

2.19 There are large regional variations in the disbursal of bank credit to agriculture. For example, the southern region accounted for nearly one-third of the total outstanding agricultural credit disbursed nationally although they accounted for less than one-fifth of total farm households in the country. On the other hand, the eastern region's share in credit is much lower than its share in farmer households. In particular, Bihar's share in agricultural credit stands at only 2.4 per cent while its share in the total number of farmer households in the country is 8 per cent (Table 2.5).

2.20 Region and state-wise classification of districts by their Credit-Deposit (C-D) ratios show that, as of March 2006, districts in the north-eastern, eastern and central regions have low C-D ratios, while the western region districts appear somewhat spread out across C-D ratio ranges. The southern region enjoys the distinction of its districts being concentrated in high C-D ratio ranges (Table 2.6). Another significant finding is that with the policy of doubling of credit for agriculture the number of districts having low C-D ratio of 40 per cent or less have come down from 280 at the end of March 2003 to 164 at the end of March 2006.

Table 2.5
Region-wise Distribution of Outstanding Farm Credit and Farmer Households

(In percentages)

Regions/States	Agricultural Credit				Farmer HHs, 2003	Indebted Farmer HHs, 2003
	2006	1992	1982	1972		
Northern Region	23.5	17.5	21.9	13.1	6.3	6.5
North-Eastern Region	0.8	2	1.5	5.4	3.9	1.6
Eastern Region	8.2	11.3	10.8	13.3	23.6	19.4
Central Region	17.6	17.8	15.4	11.4	30.4	26.0
Western Region	17.2	15.2	16	22.4	17.5	19.2
Southern Region	32.6	36.3	34.4	34.4	18.1	27.1
India	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Bihar + Jharkhand	2.9	4.9	3.8	1.5	11.1	6.8
Orissa	1.7	2.2	2.9	0.3	4.7	4.7
West Bengal	3.4	4.1	4.1	11.5	7.7	8.0
Madhya Pradesh+Chhattisgarh	6.3	6.3	4.6	2.1	10.2	10.0

Note: HHs denotes Households

Source: RBI, *Basic Statistical Returns of Scheduled Commercial Banks in India*, Various Years and NSSO, *Situation Assessment Survey of Farmers, 2003.*

Table 2.6
Classification of Districts by Range of C-D Ratios across Regions/Selected States

Region/State	Range of C-D Ratios as per Utilisation									
	0-40	41-60	61-100	>100	Total	0-40	41-60	61-100	>100	Total
	Number of Districts, 2006					Number of Districts, 2003				
Northern Region	23	20	41	13	97	43	26	24	4	97
North-Eastern Region	22	25	19	13	79	44	14	8	5	71
Eastern Region	54	26	24	11	115	73	26	12	2	113
Central Region	54	46	33	14	147	87	33	20	3	143
Western Region	7	13	33	11	64	18	10	29	7	64
Southern Region	4	20	46	29	99	15	30	40	14	99
India	**164**	**150**	**196**	**91**	**601**	**280**	**139**	**133**	**35**	**587**
Bihar	23	8	3	4	38	32	6	—	—	38
Jharkhand	20	1	1	—	22	17	2	1	—	20
Madhya Pradesh	10	15	15	8	48	17	15	11	2	45
Orissa	1	9	14	6	30	6	14	8	2	30

Note : C-D denotes Credit-Deposit

Source : Computed by Economic and Political Weekly Research Foundation from RBI, *Basic Statistical Returns of Scheduled Commercial Banks in India, 2003* and *2006*.

Trends in Ratios of Credit to GDP and Term Credit to Capital Formation

2.21 Credit flow as a percentage of agricultural GDP and term credit as a percentage of capital formation in agriculture have gone up steadily (Table 2.7). Short-term credit as a percentage of farm inputs and total institutional credit flows as a percentage of GDP have also increased. The bank credit to agricultural GDP ratio gets considerably inflated due to the slowing down of growth in agriculture. An increase in short term credit as a proportion of the value of farm inputs could be attributed to the diversification that is taking place in agriculture. The ratio of term credit to private sector gross capital formation in agriculture has more than doubled in three years, 2002-03 to 2005-06. Total credit flow to agriculture as a share of agricultural GDP has increased to 30 per cent in 2005-06.

Table 2.7
Trends in Agricultural Credit Flow at Current Prices

(1999-2000 Series)

Year	Short-Term Credit, (Rs. Crore)	Term Credit, (Rs. Crore)	Total Credit Flow (Short and Long Term), (Rs. Crore)	Short-Term Credit as per cent of Value of Inputs	Term Credit as per cent of Private Sector GCF	Total Credit Flow as per cent of Agricultural GDP
1980-81	2047	1389	3436	13.4	56.3	7.3
1985-86	4529	2629	7158	19.3	73.9	9.0
1990-91	5979	4209	10188	15.2	34.4	6.8
1996-97	16998	9413	26411	22.8	55.7	7.7
1999-00	28965	17303	46268	25.5	41.7	10.4
2000-01	33314	19513	52827	28.9	51.0	11.7
2001-02	40509	21536	62045	32.7	43.1	12.7
2002-03	45586	23974	69560	35.3	45.8	14.7
2003-04	54977	32004	86981	38.3	64.5	16.3
2004-05	71847	53462	125309	51.1	89.6	23.4
2005-06	105282	75204	180486	—	—	30.3

Note : GCF denotes Gross Capital Formation GDP denotes Gross Domestic Product

Source : For Credit Data as in Table 2.1 and Central Statistical Organisation, *National Account Statistics*, Various Years.

The Lead Bank Scheme

2.22 The Lead Bank Scheme (LBS) acts as a consortium leader for coordinating the efforts of all credit institutions in the allotted districts to expand the flow of credit to priority sectors – agriculture, small scale industry and other economic activities. An important function assigned to

lead banks had been to prepare three year District Credit Plans (DCPs) along with Annual Action Plans (AAPs). Field inquiries suggest that the entire structure covering the working of the LBS and the associated planning exercises have become ritualistic and less effective. This is an area which requires a closer review, firm decision-making and clear guidelines from the RBI. In the changed context, the LBS can play an effective role in facilitating a better flow of credit to farmers for both farm and non-farm activities. LBS can organise facilities for credit counselling for farmers at taluka/block level through selected bank branches.

IV. REGIONAL RURAL BANKS

2.23 The Regional Rural Banks (RRBs) were set up consequent to the recommendations of the Working Group on Rural Banks (1975). The main objectives of the Regional Rural Banks were to take banking to the doorsteps of the rural masses, particularly in areas without banking facilities; to make available cheaper institutional credit to the weaker sections of society, who were to be the only clients of these banks; to mobilise rural savings and canalise them for supporting productive activities in rural areas; to generate employment opportunities in the rural areas and to bring down the cost of providing rural credit.

2.24 Although RRBs are essentially commercial banks, there are some important differences between the commercial banks and the RRBs. First, the area of the regional rural bank is limited to a specified region comprising one or two districts of a state. Secondly, unlike the commercial banks, the regional rural banks can only give direct loans to small and marginal farmers, rural artisans, and agricultural labourers and others of small means for productive purposes. Thirdly, the lending rates of RRBs should not be higher than the prevailing lending rates of cooperative societies in any particular state. The RRBs pay a lower rate of interest on borrowings from the RBI. Again, these banks are allowed to maintain a cash reserve ratio of only 3 per cent and a statutory liquidity ratio of 25 per cent and are provided refinance facilities through NABARD. The equity of RRBs is held by the central government, concerned state governments and the sponsor bank in the proportion of 50:15:35.

Progress of RRBs

2.25 The number of RRBs rose from just 5 in 1975 to 196 by 2004. The RRB branches now number over 14,000, cover 516 districts and serve a client base of close to 6.27 crore. During 1990-91 to 2003-04, RRBs registered a substantial increase in their deposits, but their credit did not rise proportionately. Consequently their C-D ratio has come down from 83.7 per cent in 1991 to only 52.9 per cent in 2005 (Table 2.8).

2.26 RRBs account for 30 per cent of all rural branches of scheduled commercial banks. But, their share in total agriculture credit at the national level has remained at between six to nine per cent right since their inception. During 2004-05, out of total agricultural credit of Rs.1,25,309

crore, the RRBs contributed Rs. 11,718 crore, that is, 9.35 per cent. Of their total lending, their share of agricultural lending increased from 35 per cent in 1995 to 39 per cent by 2003-04.

Table 2.8
Performance Indicators of RRBs

(Rs. Crore)

Particulars	1991	1995-96	2002	2003	2004	2005
Reserves			1782	2375	3107	3818
Deposits	4035	11252	44539	50098	56350	62143
Loans & Advances Outstanding (Credit)	3378	6117	18629	22158	26114	32870
Loans Issued			10571	12641	15579	21082
Credit Deposit ratio, %	83.7	54.4	41.8	44.2	46.3	52.9

Source: NABARD

Critical Evaluation of RRBs

2.27 For some time the RRBs performed well. But, their performance deteriorated during the 1990s. However, beginning with 2002, their performance has improved. During the 1990s their recovery rates were low, they had low earning capacity because of limits imposed on the interest rates they could charge, and there was a big increase in wages and salaries. Moreover, the sponsoring banks competed with them and ran their own branches in the area of operation of the RRBs. As a result, RRBs began to run into losses (150 out of 194 RRBs in 1994-95) and most of them had large Non Performing Assets (NPAs).

2.28 Several Committees were set up to look into the problems of RRBs and suggest improvements. The Dantwala Committee (RBI, *Report of the Review Committee on Regional Rural Banks*, 1978) recommended that RRBs should also finance non-target group borrowers. It did not favour the merger of RRBs with the sponsoring bank as this would not solve the problem of losses but only conceal them.

2.29 Most other committees were concerned with improving the financial health of RRBs through capitalisation or through reorganisation (Working Group on RRBs, 1986; Agricultural Credit Review Committee, Khusro Committee, 1989; Committee on Financial System, Narasimham Committee, 1991; and Committee on Restructuring of RRBs, Bhandari Committee, 1994). Recently, the Advisory Committee on Flow of Credit to Agriculture and Related Activities from the Banking System, popularly known as Vyas Committee (2004) recommended that RRBs should continue but should be restructured into viable financial institutions, simultaneously retaining their regional character and rural focus. The reforms initiated in stages would ultimately result in 20 state-level RRBs. RBI is also looking into the restructuring of RRBs.

Recent Improvements

2.30 In view of their proximity to rural people and better scope for understanding local conditions, RRBs are better placed to undertake micro finance operations on a large scale than are commercial banks. Since 2002, RRBs have registered a remarkable improvement in their functioning primarily as a result of their linkage with self-help groups. This linkage has not only helped them to improve their balance sheet but also enabled them to revert to their original mandate of serving the poorer sections of the rural population (RBI, *Report of the Internal Group to Examine Issues Relating to Rural Credit and Micro-Finance*, Khan Committee, 2005).

2.31 The performance of RRBs has improved significantly in terms of a number of criteria. Over a period of three years (2002-05), aggregate reserves of RRBs have increased by 124 percent while deposits and investments have increased by 39.5 per cent and 20.1 per cent respectively. During the same period, outstanding loans and advances increased by 76.4 per cent, while loans issued increased by 99.5 per cent. More important, during 1995 to 2004, their priority sector agricultural lending grew by 19.9 per cent per annum and non-agricultural lending by 14.9 per cent per annum.

2.32 The number of profit making RRBs gradually increased from 147 in 1999 to 166 by 2005 and those reporting losses declined from 49 to 30. Moreover, the share of non-performing assets declined considerably from 27.8 per cent in 1999 to 8.5 per cent by 2005. But there are regional differences. In particular, NPAs of the north-eastern region (16.3 per cent) continue to be very high.

2.33 Despite their better performance, RRBs have not so far been able to show a worthwhile improvement in financial margins, costs of operation and gross margins. In order to improve their financial performance, the RRBs will have to diversify their investments from low yielding government bonds to more remunerative areas. The government has taken a policy decision to strengthen RRBs by consolidating them. Consequently, the number of RRBs has been brought down from 196 in 2005 to 96 in June 2007. It has also been decided to expand the rural branch network through the RRBs. In order to improve further the functioning of the RRBs, it is important to strengthen their association with SHG linked microfinance institutions.

Problem of High Transaction Costs

2.34 In spite of advances in information and communication technology and considerable improvement in the institutions of decentralised governance, bureaucratic dealings persist in the form of complex land mortgage procedures. Considerable amount of paper work, requirement of multiple visits to the banks and bribes are other existing problems. As a result, farmers incur considerable transaction costs in obtaining bank loans. This state of affairs appears to be partly because of lack of effective enforcement of directives to the scheduled commercial banks and RRBs in simplifying procedures. In the context where banks are expected to play the role of

providing credit counselling to the farming community, simplifying procedures and transparency in providing credit need special attention.

V. RURAL INFRASTRUCTURE DEVELOPMENT FUND

Cumulative RIDF Corpus

2.35 The Rural Infrastructure Development Fund (RIDF) was established in 1995 in NABARD. Commercial banks which fail to meet priority sector lending requirements to agriculture are required to contribute a part of the shortfall to RIDF. The main objective of the Fund is to provide loans to State Governments and State-owned corporations to enable them to complete ongoing rural infrastructure projects.

2.36 The RIDF resources are released to state governments in tranches. An allocation of Rs.2,000 crore was made as the first tranche under RIDF-I. The latest tranche is RIDF-XIII for 2007-08. It has an allocation of Rs.12,000 crore for the defined rural infrastructure projects and an additional Rs.4,000 crore under a separate window for the rural roads component of Bharat Nirman Programme. The cumulative RIDF corpus including the Bharat Nirman components touched Rs 80,000 crore as of 2007-08.

2.37 The cumulative disbursements amounted to Rs. 25,348 crore as against cumulative sanctions of Rs. 42,948 crore on March 31, 2005 (Table 2.9). Out of 2,44,025 projects sanctioned under RIDF I to XII, 135,010 projects have been completed by December 2006 (NABARD). So far, 90 per cent of the sanctioned amount in tranches I-III and 80 per cent of the sanctioned amount in tranches IV-VI have been disbursed. Neither data on recovery nor any overall assessment of programmes financed out of each of the tranches is available.

2.38 Table 2.9 reveals the widening gap between sanctions and disbursements. The shortfall in disbursements of RIDF funds as compared to sanctions remains a matter of concern. There appears to be undue delays in disbursing sanctioned amount. To address this problem the scope of RIDF has been widened. For example, the activities to be financed under RIDF-X include minor irrigation projects/micro irrigation, flood protection, watershed development/reclamation of waterlogged areas, drainage, forest development, market yard/godown, apna mandi, rural haats and other marketing infrastructure, cold storage, seed farms, plantation and horticulture, grading and certifying mechanisms such as testing and certifying laboratories, community irrigation wells for the village as a whole, fishing harbour/jetties, riverine fisheries, animal husbandry and modern abattoirs.

Table 2.9
Cumulative Sanctions and Disbursements of RIDF Under Different Tranches
(As on 31 March 2005)

(Rs. Crore)

RIDF Tranche	Corpus	No. of Projects Sanctioned	Amount		Disbursement as per cent of Sanctioned
			Sanctioned	Disbursed	
I	2,000	4,168	1,906.21	1,760.87	92.4
II	2,500	8334	2,666.87	2,397.95	89.9
III	2,500	14,346	2,733.82	2,453.50	88.7
IV	3,000	6,172	2,903.32	2,482.00	85.5
V	3,500	12,254 *	3,477.16	3,032.66	87.2
VI	4,500	43,354	4,525.36	3,850.83	85.1
VII	5,000	24,987	4,657.65	3,756.82	80.7
VIII	5,500	21,012	6,009.36	4,440.34	73.9
IX	5,500	19,605	5,599.18	3,387.48	60.5
X	8,000	59,979	8,289.75	2,967.81	35.8
XI	8,000	30,440	8,514.33	807.08	9.5
Total	50,000	2,44,651	51,283.01	31,337.34	61.1

Note: * One lakh shallow tubewells sanctioned to Government of Assam treated as a single project.
Source: NABARD.

2.39 As a measure of disincentive for non-achievement of the agricultural lending target, the rate of interest on deposits made by contributing banks in RIDF has been lowered and is charged in inverse proportion to the extent of shortfall in agricultural lending *vis-à-vis* the stipulated target of 18 per cent. Banks were paid 6 per cent in respect of the amounts contributed to RIDF during tranches IV to VII. Currently, the maximum interest rate paid to commercial banks towards RIDF deposits is the Bank rate. However, if the shortfall from targeted agricultural credit is large, the interest rate is reduced. The additional amount accruing to NABARD over and above the normal margin goes to a dedicated Watershed Development Fund.

Regional Distribution of RIDF Funds

2.40 The region-wise distribution of cumulative RIDF sanctions and disbursements shows that the southern region accounted for 30 percent of total sanctions as well as disbursements. On the other hand, the central, eastern and north-eastern regions, which together account for about 58 per cent of farm households, have got just 38 per cent of RIDF project funds

sanctioned and 35.4 per cent of the project funds disbursed (Table 2.10). A number of factors including the issues of governance and organisational initiative, population density, and the absorptive capacity of RIDF funds themselves, may have played a role in creating vast regional variations in the use of RIDF funds.

Table 2.10
Region-wise Sanction and Disbursement Under RIDF

(As on 31 March 2006)

State/Region	Total (RIDF I To RIDF XI)				Disbursement as per cent of Sanction
	Sanction	Per cent	Disbursement	Per cent	
Northern Region	5620.56	(10.96)	3857.16	(12.31)	68.6
North-Eastern Region	2063.24	(4.02)	989.97	(3.16)	48.0
Eastern Region	7527.38	(14.68)	3746.93	(11.96)	49.8
Central Region	9946.87	(19.40)	6365.69	(20.32)	64.0
Western Region	10677.21	(20.82)	6953.30	(22.20)	65.1
Southern Region	15447.75	(30.12)	9414.21	(30.05)	60.9
India	51283.01	(100.00)	31327.26	(100.00)	61.1

Note: RIDF denotes Rural Infrastructure Development Fund. Figures in parentheses denote per cent to total.
Source: NABARD

Scope for Expanding Agriculture-Related Investment

2.41 The domestic scheduled commercial banks credit flow to agriculture has been falling short of the priority sector target of 18 per cent for agriculture. What is more, only a part of this shortfall (default) has been allocated to RIDF (Table 2.11). For instance, from the total outstanding credit in 2005-06, the shortfall was Rs.36,628 crore whereas the amount allocated to RIDF was Rs.14,000 crore only. There is a need to allocate the additional funds for investment in agriculture either directly by NABARD or through the issue of Rural Development Bonds (RDBs) by the Government of India.

Table 2.11
Measured Gap Between Default and RIDF Allocation for all Domestic Scheduled Commercial Banks

(Rs. Crore)

	2003-04	2004-05	2005-06	2006-07*
Number of banks defaulting in respect of achievement of agricultural lending target	45	43	44	NA
Amount of agricultural credit defaulted	Rs.4,585.65	Rs.31,759.11	Rs.36,627.81	NA
Amount allocated to banks for RIDF under respective tranches as per corpus announced by the Government	Rs. 8,000 crore for RIDF-X (for 2004-05)	Rs.8,000 crore for RIDF-XI (for 2005-06)	Rs. 14,000**	Rs.16,000 **
Difference between Amount defaulted and allocations	Rs.16586 crore	Rs.23759 crore	Rs.22628 crore	NA

Note : * Not yet allocated. **. Rs.4,000 crores under the separate window for rural roads component of Bharat Nirman Programme under RIDF-XII for 2006-07 and RIDF XIII for 2007-08.

Source : RBI (in a special communication to the Expert Group).

VI. AGENCY AND MOBILE BANKING

2.42 Financial inclusion and facilitation of credit to the farming community which is scattered, some times in remote settlements, need not only increase in spread of branch banking in rural areas but also requires bringing about improvements in technology and institutional forms. Agency banking, in the form of *business facilitators* and *business correspondents*, are the new forms which would facilitate better farmer-bank linkages. *Mobile banking* would help make banking more accessible to smaller and remote settlements. These developments would reduce transaction costs associated with physical distance, reduce bureaucratic delays and improve transparency. These measures and institutions have to be promoted to improve the reach of institutional credit to farmers.

VII. SELF HELP GROUPS (SHGs)

SHG-Bank Linkage

2.43 The SHG-Bank linkage programme was started as an Action Research Project in 1989. NABARD sanctioned Rs. 10 lakh to MYRADA as seed money assistance for developing the concept of credit management groups. This led to the setting up of a pilot project in 1992. The pilot project was designed as a partnership model between three agencies, viz., the SHGs, banks and Non-Governmental Organisations (NGOs).

2.44 The main objective of the SHG-Bank linkage programme is to provide thrift linked credit support to members of SHGs, in order to enable them to have access to the formal banking

system and get loans in a reasonably short time and at low cost. The programme has now emerged as the largest and fastest growing micro-finance initiative in the country. There are 560 banks now actively involved in the operation of this programme. This includes 48 commercial banks, 96 RRBs and 316 cooperative banks. The SHG programme not only benefits its members, it also enables banks to reduce their transaction costs and risk in delivering small loans. This has improved banks outreach and credit flow to the poor. More than 90 per cent of the SHGs are exclusively women's groups. This has encouraged financial inclusion of poor and assetless.

2.45 Another distinctive feature of the SHG-Bank linkage programme is its high on-time recovery. As on June 2005, the on-time recovery under SHG-Bank linkage programme was 90 per cent in commercial banks, 87 per cent in RRBs and 86 per cent in cooperative banks.

Progress of SHGs

2.46 Initially there was slow progress in the programme up to 1999, as only 32,995 groups were credit linked. Since then, the programme has been growing rapidly. The number of SHGs financed by March 2006 was 22.4 lakh groups and an amount of Rs. 11,398 crore was disbursed. In 2005-06, 6.2 lakh groups were financed and Rs.3078 crore bank loan was disbursed implying a loan amount of Rs.37,581 per SHG. The per member loan worked out to be less than Rs.4,000.

Table 2.12
Progress of SHG-Bank Linkage Programme

Year	SHG financed by banks ('000)		Bank loan (Rs. crore)	
	During the year	Cumulative	During the year	Cumulative
1992-99	33.00	33.00	57.07	57.07
1999-00	81.78	114.78	135.91	192.98
2000-01	149.05	263.83	287.89	480.87
2001-02	197.65	461.48	545.47	1026.34
2002-03	255.88	717.36	1022.34	2048.68
2003-04	361.73	1079.09	1855.53	3904.21
2004-05	539.37	1618.46	2994.25	6898.46
2005-06	620.11	2238.57	3078.37	11397.50

Source : NABARD

Regional Imbalances in SHGs

2.47 Until 2002, the regional spread of SHG-Bank linkage programme was highly uneven and mainly concentrated in the southern region which accounted for about 78 per cent of cumulative

finance from banks. Only in recent years, there has been a spread to other regions as well. Consequently, the share of southern region in the total number of SHGs has declined from 63 per cent in 2004 to 54 per cent in 2006. The lowest share, both in terms of cumulative numbers of SHGs as well as loans sanctioned was in the north-eastern region followed by the eastern region. Even these regions are reported to have made some progress recently. Many states such as Uttar Pradesh and Bihar with a high incidence of poverty have shown poor performance under this programme.

2.48 SHGs should be encouraged to federate into joint liability groups. This would enable them to spread their risks. The SHG-Bank linkage programme should increasingly provide credit for micro-enterprises. This would require capacity building, skill formation and intervention to develop market linkages. For this, RRBs, scheduled commercial banks, cooperatives and NABARD should play a pro-active role.

2.49 At present there are three types of promoters of SHGs – i) state governments, public sector banks and cooperatives; ii) private banks in collaboration with NGOs; and iii) micro finance institutions (MFIs) promoted by non-banking financial organisations (NBFCs). There are some instances of the SHGs formed through financial intermediaries (NBFCs) where the interest rates charged are exorbitant and exploitative. In the interest of the healthy growth of the SHG movement, it is necessary to enforce a ceiling on interest rates by the MFIs, as in the case of RRBs.

VIII. FEDERATIONS OF FARMERS SHGs

2.50 With the growing marginalisation of agricultural holdings and with almost 80 per cent of the farmers being small and marginal, there is widespread recognition that farmers need their own collectives to overcome their disadvantage in accessing inputs including adequate and timely credit for increasing productive activities not only in agriculture but also in allied activities.

2.51 Of all the SHG-bank linkage programmes, Andhra Pradesh model of federations of SHGs promoted by the Society for Eradication of Rural Poverty (SERP) provides an ideal model for farmers. The programme which was developed mainly for women can easily be adopted for farmers.

2.52 A homogeneous group of 10 to 15 farmers (based on land size or other characteristics) could form an SHG and several such groups form a village level federation of SHGs. These village level federations could further form taluka/block level federations, which in turn could come together at the next tier as district level federations. While the SHGs would access bank credit directly from the banks, higher order activities like input purchase, marketing, crop/wealth/health insurance could be aggregated and handled at different levels by the federations of farmers' SHGs. The central and state governments should initiate the formation of such federations of farmers SHGs and help in their capacity building. This will go a long way in

improving the flow of institutional credit to small and marginal farmers and also help them in their participation in diversified production activities. It is therefore, necessary to build a pyramid structure of federations of farmers' SHGs in each state; to begin with it may be initiated in distressed districts.

IX. KISAN CREDIT CARD

2.53 The introduction of the Kisan Credit Card (KCC) in 1998-99, a Government initiated measure, was a step intended to overcome the rigidities inherent in the credit system and to make the credit market more borrower friendly. The scheme aims to provide adequate and timely credit support to farmers from the banking system in a flexible, hassle free and cost effective manner. The farmers may use the card for the purchase of agricultural inputs and other production needs. Credit limits are fixed on the basis of landholding size, cropping pattern and scale of finance. The entire credit needs for a full year including ancillary activities related to crop production such as the maintenance of agricultural machinery/implement, electricity charges are covered. The KCC Scheme is being implemented in all states and union territories by all public sector commercial banks, apex state and district central cooperative banks, and RRBs. By the end of 2006, the number of cards issued has risen to 642 lakhs. In rainfed areas, the features of cyclical credit need to be built into the card.

KCC to Bharat Kisan Card (BKC)

2.54 In spite of progress in terms of the number of cards distributed, there is widespread dissatisfaction that the KCC is only a bank account in the name of the card. There is a need to make the card comprehensive. Recent efforts in bringing developments in the Information and Communication Technology (ICT) to banking operations suggest that the instrument of a bio-metric smart card could be much more comprehensive and could provide adequate information on farmers' assets and credit profile. At the same time the farmer should be able to access credit, markets, services and information by swiping the card. A Sub-Group which examined the issue recommended that the present sporadic, uncoordinated and *ad hoc* efforts to introduce SMART cards should give way to a more systematic and coordinated effort for the introduction of the facility to all farmer households on a *mission mode*. The Expert Group recommends that the card may be designated as Bharat Kisan Card (BKC). NABARD should implement and oversee the programme with appropriate monitoring and evaluation machinery.

X. RECENT POLICY INITIATIVES

2.55 In 2004-05, the Government introduced a policy of doubling agricultural credit in three years. During the subsequent two years, the number of accounts increased by 36.4 per cent, while the amount increased by 79.4 per cent (Table 2.1). An analysis of bank credit data for the recent period shows a reversal of the declining trend in the share of agriculture witnessed since

the late 1980s. The reversal began from 2002 and has been sustained since then with an additional impact seen from the implementation of the doubling of credit (Figure 2.3). This increase in share has been experienced in both direct and indirect credit for agriculture. However, indirect credit has increased at a faster rate than direct credit. While indirect credit has grown to reach its permissible limit of 4.5 percent; direct credit, in spite of absolute increase, still falls short of its target of 13.5 per cent (See Figure 2.2).

2.56 Another important change that has occurred in the recent period is in the size composition of indirect credit. The share of accounts with credit limits of Rs.25 crore and above has increased from 37 per cent at the end of March 2004 to 53 per cent at the end of March 2006. The sources of loan have also been shifting to urban and metropolitan branches.

XI. SUMMING UP

2.57 Since the mid-1960s, institutional credit to agriculture has made considerable progress. Particularly, commercial banks credit to agriculture has expanded rapidly. It now accounts for about 70 percent of the total institutional credit flow to agriculture, that is, 55 per cent of the short-term credit and 90 per cent of the long-term credit. In the nineties, the commercial banks credit to agriculture registered a sluggish growth. Since 2004-05, the growth of commercial banks credit to agriculture has picked up due to the implementation of government policy of doubling agricultural credit; even then, the share of commercial banks credit to agriculture in total credit has fallen short of the mandated target.

2.58 Of all the institutional agencies, the growth rate of cooperative credit has been the slowest. Moreover, the performance of cooperatives has not been satisfactory. They suffer from high NPAs, low reserves, large overdues, poor management and excessive interference by state governments. The measures suggested by the Vaidyanathan Task Force (2005) for improving the cooperative credit delivery system can go a long way in improving the cooperative credit flow to agriculture.

2.59 The RRBs functioned well in the beginning for more than a decade after their establishment in 1975. Their performance in the nineties deteriorated. Since 2002, it has been improving primarily as a result of their linkage with SHGs. The linkage has also enabled them to revert to their original mandate of serving the rural poor.

2.60 Credit flow to agriculture has been below the priority sector target of 18 per cent for agriculture. Only a part of this shortfall (default) has been allocated to RIDF. Even after accounting for RIDF allocation, the gap in 2005-06 was Rs. 22,628 crore. There is a need to allocate the additional funds for investment in agriculture either through NABARD or through the issue of Rural Development Bonds (RDBs) by the Government of India.

2.61 There are some recent institutional innovations that could benefit the farming community. These include federations of farmers' SHGs, agri-clinics and the Bharat Kisan Cards (BKCs). If nurtured, these institutions will not only lead to expansion of agricultural credit as a whole but also enlarge its flow to marginal and small farmers.

2.62 Within the farming community, marginal farmer households are the most distressed group. Over time, their share in the total number of farmers has been increasing at a faster rate than their share in land. Moreover, their share in agricultural credit declined although their share in area increased. It is recognised that the solutions to their distress often lie beyond agriculture. There is a need to create economic opportunities in off-farm and rural non-farm activities targeted at the marginal farmers. The SHG-Bank linkage programme should provide credit to such activities.

2.63 The districts with low C-D ratios generally belong to rainfed regions. These districts are prone to repeated crop failures. There is a need to improve their C-D ratios as well as to put in place effective instruments for mitigating risks.

CHAPTER 3

INDEBTEDNESS OF FARMERS

I. INTRODUCTION

3.1 Indebtedness, in particular farmers' indebtedness, has long been treated as a distress phenomenon. It is indeed so if the debt taken is not used for productive purposes like purchase of inputs that augment output or creation of assets that augment the earning base of the borrowers and instead is used for consumption purposes or marriages and social ceremonies. Debt can also become a distress phenomenon if the borrower's crop fails due to natural calamities, drought, use of spurious inputs, infructuous investments or other unforeseen reasons, or if production becomes uneconomic because of high input costs, stagnant technology and lack of remunerative prices which make it impossible for the farmer to repay his capital and interest. Finally, and this is quite common, interest becomes a heavy liability if the loan is taken from non-institutional sources like moneylenders at high rates of interest. The accumulated liability of principal and compound interest can sometimes become crippling, and the borrower is forced to mortgage or sell his land losing thereby his only means of livelihood. In some cases, indebtedness and failure to pay can become one of the important causes for farmers' suicides.

3.2 Short-term crop loans by farmers are used for purchase of inputs and long-term loans for building of assets like irrigation pump sets or tubewells or for land improvement. There is increasing evidence that farmers in India are using a major proportion of their borrowings for productive purposes. Hence, under normal circumstances mere outstanding indebtedness may not be a distress phenomenon in most cases but only indicates their requirements for carrying out productive activities.

3.3 The latest decennial *All-India Debt and Investment Survey* (AIDIS) and the *Situation Assessment Survey of Farmers* (SAS), both conducted by the NSSO during January-December 2003 in its 59th Round, provide insights into varied dimensions of farmers' indebtedness in India. SAS covered outstanding debt during January-August 2003 of farmer households defined as those operating some land and engaged in agricultural activities on that land in the past year whereas AIDIS covered outstanding debt at the end of June 2002 for cultivator households operating at least 0.002 hectares of land in the past year. Though the two surveys have some differences in definitions and coverage, their broad conclusions appear comparable. This chapter is devoted to an analysis of their key results. Trends in indebtedness, regional variations, and distributions by land size, social groups and asset classes – all under institutional and non-institutional sources of debt – are one set of such results analysed. Another set concerns the discussion of debt by purpose of loans and interest rates charged by formal and informal sources. In the analysis, special focus is given to the incidence of debt amongst small and marginal farmers.

II. INCIDENCE OF INDEBTEDNESS

3.4 Of the 89.33 million farmer households estimated in 2003, the SAS shows that 43.42 million or 48.6 per cent were indebted (Table 3.1). In other words, more than half – 45.91 million or 51.4 per

cent – were not indebted either from institutional or non-institutional sources. A large proportion of them might have been financially excluded. The average outstanding debt per farmer household was at Rs.12,585 and per indebted farmer household was at Rs.25,902.

Table 3.1
Incidence of Indebtedness in Major States: 2003

State	Estimated Number of Indebted Farmer Households	Per cent of Indebted Farmer Households	Average Loan Per Household, Rupees
Andhra Pradesh	49493	82.0	23965
Tamil Nadu	28954	74.5	23963
Punjab	12069	65.4	41576
Kerala	14126	64.4	33907
Karnataka	24897	61.6	18135
Maharashtra	36098	54.8	16973
Haryana	10330	53.1	26007
Rajasthan	27828	52.4	18372
Gujarat	19644	51.9	15526
Madhya Pradesh	32110	50.8	14218
West Bengal	34696	50.1	10931
Orissa	20250	47.8	5871
Uttar Pradesh	69199	40.3	7425
Himachal Pradesh	3030	33.4	9618
Bihar	23383	33.0	4476
Jammu & Kashmir	3003	31.8	1903
Assam	4536	18.1	813
All India	434242	48.6	12585

NA denotes not available

Source : National Sample Survey Organisation (NSSO), *Situation Assessment Survey of Farmers, 2003*.

3.5 A state-wise analysis showed that in 2003 incidence of indebtedness was higher in states which had input-intensive or diversified agriculture. The incidence of indebtedness was the highest in Andhra Pradesh followed by Tamil Nadu, Punjab, Kerala, Karnataka, Maharashtra and Haryana (Table 3.1). Average debt per farmer was higher in states with higher incidence of outstanding debt. For instance, average outstanding debt per farmer household was higher in the state of Punjab followed by Kerala, Haryana, Andhra Pradesh and Tamil Nadu – all relatively developed and better banked states. On the other hand, the incidence of indebtedness as well as outstanding debt per farmer was low in the states of central, eastern and north-eastern

regions of the country indicating partly low absorptive capacity and partly inadequacy of banking services. Clearly, neither indebtedness nor outstanding debt per farmer was an indicator of backwardness. In the five states of Andhra Pradesh, Karnataka, Kerala, Maharashtra and Punjab where suicides were reported, both indebtedness and outstanding debt per farmer household were higher than the all-India level. As will be seen, in these states except for Kerala, large proportion of the debt was incurred for productive purposes. Strikingly, sources of debt were different. For instance, in Maharashtra the institutional sources accounted for a major portion of the debt whereas in Andhra Pradesh it was from moneylenders.

3.6 The inter-state variations in the incidence and amount of debt per farmer household could be on account of the differences in their level of development and commercialisation of agriculture. The southern states have a relatively more diversified agriculture as the proportion of their area devoted to foodgrains was relatively less than that of all-India. On the other hand, Punjab and Haryana are primarily foodgrain producing states using high doses of inputs purchased from the market. In both the category of agriculturally developed states, farmers need to borrow for financing investment, production and marketing.

3.7 There were differences in the incidence of indebtedness among different social groups (SAS, 2003). The incidence of indebtedness was 36.3 percent for scheduled tribes, 50.2 per cent for scheduled castes, 51.4 percent for other backward classes and 49.4 percent for others. The average amount of outstanding debt was Rs.5,506 for scheduled tribes, Rs.7,167 for scheduled castes, Rs.13,489 for other backward classes and Rs.18,118 for others. The incidence of indebtedness as well as average amount of debt was lowest for the most deprived group viz., scheduled tribes. In the case of other groups, the incidence of indebtedness was closer to that of all-India (48.6 per cent). Average outstanding debt was also lower for scheduled castes.

III. DEBT BY SOURCES

3.8 Total debt of farmer households was estimated at Rs.1.12 lakh crore in 2003; of which Rs.65,000 crore was from institutional agencies and Rs.48,000 crore from non-institutional agencies. Private moneylenders accounted for Rs.29,000 crore and traders Rs.6,000 crore. About Rs.18,000 crore of debt from non-institutional sources, a major portion of which was from moneylenders, carried an interest rate greater than 30 per cent. Clearly, there is an urgent need to relieve the farmers from private debt carrying high interest rate by transferring it to institutional agencies.

3.9 The share of institutional sources in cultivators' debt improved considerably in the years following bank nationalisation, from about 32 per cent in 1971 to 66 per cent in 1991, but in the 1990s, there was a loss of momentum and the share declined to 61 per cent in 2002 (Table 3.2). In the post-nationalisation period, the increase in the share of commercial banks was rapid and sizeable. The cooperative sector's share increased from 22 per cent in 1971 to about 30 per cent by 1981 and stagnated since then. In the 1990s, while cooperatives sustained their, albeit low, share at 30 per cent, the share of commercial banks slipped from 35 per cent in 1991 to 26 per cent in 2002. The decline in the share of institutional agencies in the 1990s could be attributed to the decline in the share of commercial banks.

3.10 There are wide variations across states in the share of institutional and non-institutional sources of farmers' debt (SAS, 2003). In a majority of states, the outstanding debt of the farmers was financed more by the institutional agencies than by non-institutional agencies (Figure 3.1). However, in a few states such as Andhra Pradesh, Rajasthan, Assam, Bihar and Punjab the financing of the debt was more by the non-institutional sources.

Table 3.2
Share of Debt# of Cultivator Households from Different Sources: 1951-2002

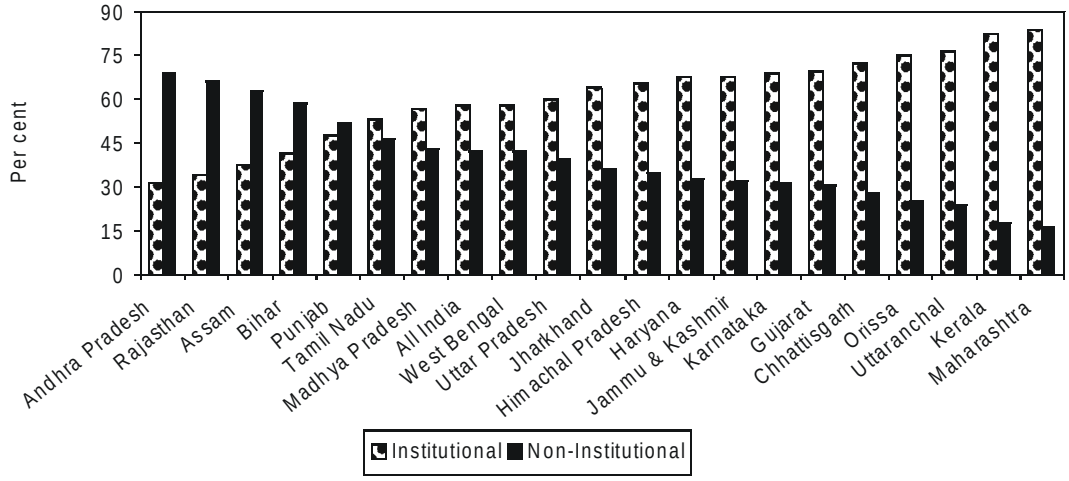
(In Percentages)

Sources of Credit	1951	1961	1971	1981	1991	2002
Institutional	7.3	18.7	31.7	63.2	66.3	61.1
Cooperative Societies/Banks, etc	3.3	2.6	22.0	29.8	30.0	30.2
Commercial Banks	0.9	0.6	2.4	28.8	35.2	26.3
Non-Institutional	92.7	81.3	66.3	36.8	30.6	38.9
Moneylenders	69.7	49.2	36.1	16.1	17.5	26.8
Unspecified	—	—	—	—	3.1	—
Total	100.0	100.0	100.0	100.0	100.0	100.0

Debt refers to outstanding cash dues.

Source: Reserve Bank of India (RBI), *All-India Rural Credit Survey, 1951-52*; RBI, *All India Rural Debt and Investment Survey, 1961-62* and NSSO, *All India Debt and Investment Surveys, 1971-72, 1981-82, 1991-92* and *2003*.

Figure 3.1
Distribution of Debt by Sources across Major States: 2003



Source: As in Table 3.3.

3.11 Credit cooperative societies were an important source of finance only in the five states of Maharashtra, Gujarat, Kerala, Haryana and Tamil Nadu. At all-India level the share of cooperatives in the total outstanding debt of farmers was only 19.6 per cent, whereas these five states had shares in the range 23-49 per cent (Table 3.3). Another set of six states (Chhattisgarh, West Bengal, Orissa, Punjab, Karnataka and Madhya Pradesh) had shares in the range of 17-21 per cent. In Maharashtra and Gujarat, the share of cooperative societies was higher than that of commercial banks. In Jammu and Kashmir, Bihar, Assam, Jharkand and Uttaranchal the share of cooperatives in farmers' outstanding debt was negligible at less than 5 per cent.

Table 3.3
Distribution of Debt by Sources across Major States: 2003

(In Percentages)

State	Institutional				Non-Institutional				Total
	Govern-ment	Coope-ratives	Bank	All	Money Lenders	Traders	Others	All	
Maharashtra	1.2	48.5	34.1	83.8	6.8	0.8	8.6	16.2	100.0
Kerala	4.9	28.3	49.1	82.3	7.4	1.7	8.5	17.6	100.0
Uttaranchal	31.5	4.8	39.8	76.1	5.9	1.7	16.3	23.9	100.0
Orissa	13.0	18.1	43.7	74.8	14.8	0.8	9.5	25.1	100.0
Chhattisgarh	1.3	20.6	50.5	72.4	13.0	4.2	10.5	27.7	100.0
Gujarat	0.5	41.8	27.2	69.5	6.5	4.4	19.6	30.5	100.0
Karnataka	1.9	16.9	50.1	68.9	20.0	1.9	9.3	31.2	100.0
Haryana	1.1	23.9	42.6	67.6	24.1	3.1	5.3	32.5	100.0
Jammu & Kashmir	13.1	0.2	54.3	67.6	1.1	15.5	15.7	32.3	100.0
Himachal Pradesh	6.1	11.6	47.6	65.3	7.2	5.5	22.0	34.7	100.0
Jharkhand	3.9	4.5	55.7	64.1	19.0	1.7	15.2	35.9	100.0
Uttar Pradesh	2.4	6.7	51.2	60.3	19.1	2.9	17.7	39.7	100.0
West Bengal	10.3	19.2	28.5	58.0	13.0	10.7	18.4	42.1	100.0
Madhya Pradesh	1.9	16.9	38.1	56.9	22.6	9.0	11.4	43.0	100.0
Tamil Nadu	2.0	23.3	28.1	53.4	39.7	0.4	6.4	46.5	100.0
Punjab	1.9	17.6	28.4	47.9	36.3	8.2	7.6	52.1	100.0
Bihar	2.2	2.5	37.0	41.7	32.8	1.1	24.6	58.5	100.0
Assam	7.0	2.7	27.8	37.5	15.5	12.0	35.1	62.6	100.0
Rajasthan	1.3	5.9	27.0	34.2	36.5	19.2	10.1	65.8	100.0
Andhra Pradesh.	1.0	10.4	20.0	31.4	53.4	4.8	10.4	68.6	100.0
All India	2.5	19.6	35.6	57.7	25.7	5.2	11.5	42.4	100.0

Source: NSSO: *Situation Assessment Survey of Farmers, 2003.*

3.12 The share of moneylenders in the farmers' outstanding debt was higher in Andhra Pradesh (53 per cent), Tamil Nadu (40 per cent), Rajasthan (37 per cent), Punjab (36 per cent) and Bihar (33 per cent). In all these states, except Bihar, the share of moneylenders in farmers' outstanding debt was higher than that of commercial banks. Traders were a significant source of financing debt in Rajasthan, Jammu & Kashmir, Assam and West Bengal.

3.13 It is indeed a matter of concern that in spite of all the efforts made for the spread of institutional finance, it accounted for only two-fifths of farmers' total outstanding debt. Further, in some states like Andhra Pradesh, Rajasthan and Assam it was less than two-fifths. Since the interest rates charged by the non-institutional sources are high, this might have imposed heavy burden on the farmers.

IV. DEBT BY LAND SIZE

Table 3.4
Incidence, Amount and Source of Indebtedness by Size Class of Holding: 2003

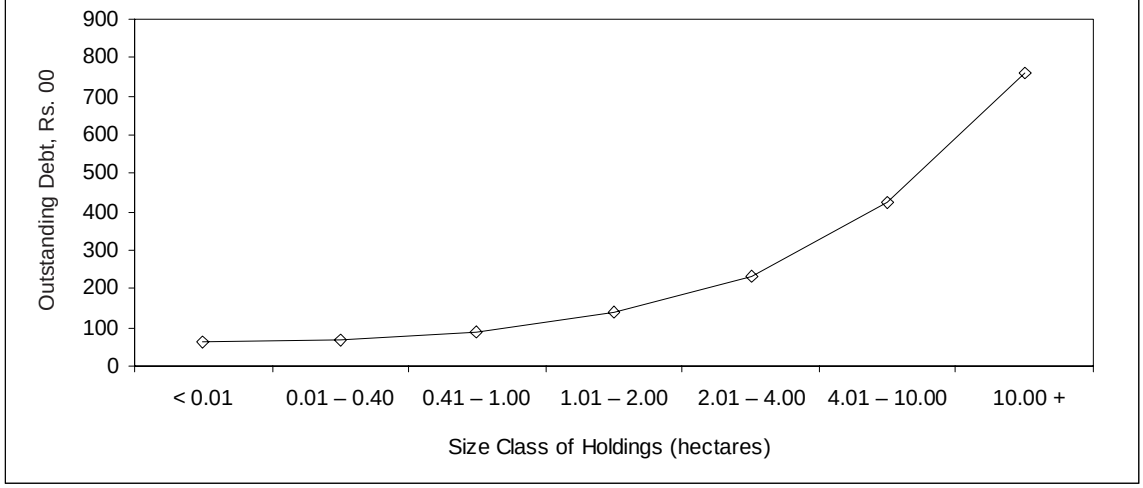
Size Classof Land Possessed (Hectares)	Total Households (%)	Total Indebted Households (%)	Incidence of Indebtedness (%)	Amount Outstanding per Farmer Houshold (Rupees)	Loans from	
					Institutional Agencies (%)	Non Institutional Agencies (%)
< 0.01	1.4	1.3	45.3	6121	22.6	77.4
0.01 – 0.40	32.8	30.0	44.4	6545	43.3	56.7
0.41 – 1.00	31.7	29.8	45.6	8623	52.8	47.2
1.01 – 2.00	18.0	18.9	51.0	13762	57.6	42.3
Up to 2.00	**83.9**	**79.9**	**46.3**	**8870**	**51.3**	**49.7**
2.01 – 4.00	10.5	12.5	58.2	23456	65.1	35.0
4.01 – 10.00	4.8	6.4	65.1	42532	68.8	31.1
10.00 +	0.9	1.2	66.4	76232	67.6	32.4
All Sizes	100.0	100.0	48.6	12595	57.7	42.4

Source: NSSO, *Situation Assessment Survey of Farmers, 2003*.

3.14 The incidence of indebtedness and the share of institutional finance in outstanding debt for all-India increased with the size of land holding (Table 3.4). The incidence of indebtedness increased from 46 per cent for marginal and small farmer households to 66 per cent for large farmers and the share of institutional agencies in the debt increased from 51 to 68 per cent. The average size of loan per farmer also increased with the landholding size (Figure 3.2). Small and marginal farmer households, which accounted for 80 per cent of indebted farmer households, absorbed 51 per cent of the total outstanding credit from institutional agencies. The dependency

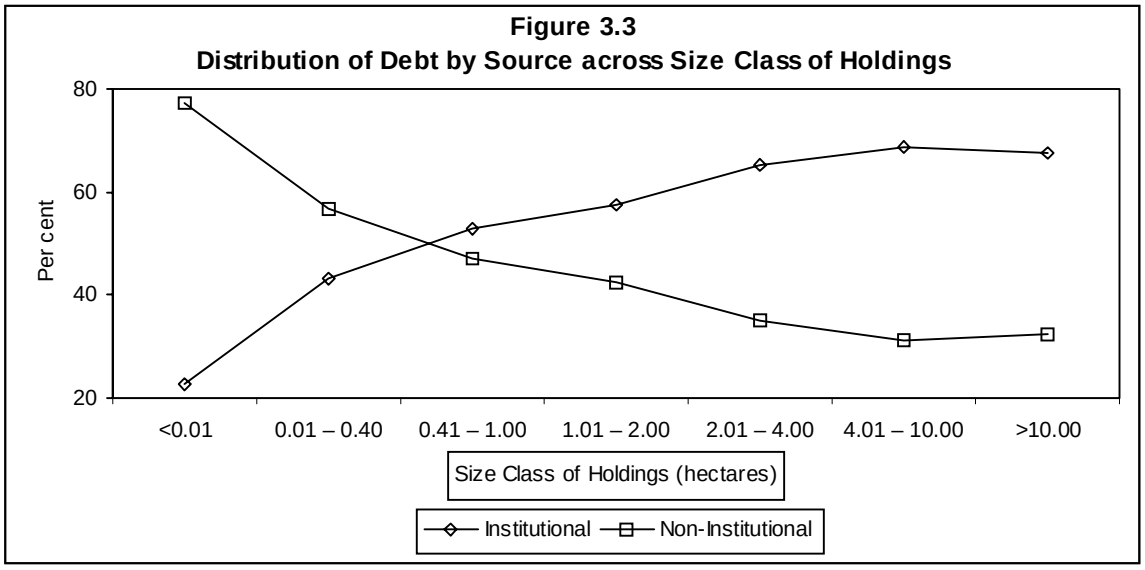
of marginal and small farmers was more on non-institutional agencies than of large farmers. As against large farmers, one–third of whose debt was from non-institutional sources, one-half of the debt of small and marginal farmers was from non-institutional sources (Figure 3.3). The marginal farmers received a relatively smaller share even from cooperatives and had to depend more on private moneylenders.

Figure 3.2
Average Outstanding Debt by Size Class of Holdings



Source: As in Table 3.4.

Figure 3.3
Distribution of Debt by Source across Size Class of Holdings



Source: As in Table 3.4.

3.15 Sources of financing outstanding debt varied across the land holding size groups. The outstanding debt of the sub-marginal land holder (land possessed less than 0.40 hectares) households was financed mostly by non-institutional agencies (Table 3.5). In a large number of

states, more than 70 per cent of their outstanding debt was from non-institutional agencies. In Andhra Pradesh and Rajasthan, non-institutional agencies accounted for as high as 80 per cent of their outstanding debt. In Kerala and Maharashtra, dependency of very sub-marginal landholding households on non-institutional sources was much less. This could be attributed to the spread of commercial bank and cooperative banks/societies in the rural areas of these states.

Table 3.5
Non-institutional Debt for each Size Class of Holding across States: 2003

(In Percentages)

State/Region	Size Class of Land Possessed							
	<0.01	0.01-0.40	0.41-1.00	1.01-2.00	2.01-4.00	4.01-10.00	>10.00	All Sizes
Andhra Pradesh	83.1	80.7	74.9	73.4	58.5	51.4	50.5	68.6
Assam	100.0	70.9	62.2	54.8	53.6	77.0	100.0	62.5
Bihar	63.5	79.2	53.0	33.9	36.6	80.4	29.9	58.3
Chhattisgarh	52.9	73.4	49.9	19.6	29.3	11.5	0.0	27.6
Gujarat	89.9	65.2	59.3	34.8	15.1	19.8	0.0	30.5
Haryana	75.4	53.5	29.0	38.0	13.6	40.6	25.3	32.4
Himachal Pradesh	0.0	49.2	22.2	20.6	45.2	7.7	100.0	34.7
Jammu & Kashmir	0.0	39.1	38.4	26.1	11.1	99.9	100.0	32.4
Jharkhand	35.5	29.2	65.5	12.4	39.5	2.0	0.0	35.9
Karnataka	84.4	66.6	37.9	41.3	26.6	13.0	3.0	31.1
Kerala	35.2	23.9	13.2	7.1	3.6	32.7	29.7	17.7
Madhya Pradesh	89.6	64.6	56.6	47.3	53.2	26.9	16.1	43.1
Maharashtra	41.7	16.8	19.8	21.2	16.2	11.3	8.9	16.2
Orissa	35.3	37.6	22.9	27.9	11.6	3.1	86.8	25.2
Punjab	75.2	70.8	34.4	50.9	38.8	52.5	69.9	52.1
Rajasthan	93.8	80.8	77.6	67.1	59.9	58.1	61.8	65.8
Tamil Nadu	80.9	62.6	54.0	38.5	34.8	25.7	17.1	46.6
Uttar Pradesh	79.8	70.2	43.3	31.5	20.2	11.5	1.8	39.7
Uttranchal	100	21.3	27.1	23.3	92.7	100	100.0	23.9
West Bengal	76.6	57.3	36.9	19.9	24.6	78.7	100.0	42.0
All-India	77.4	56.7	47.2	42.4	34.9	31.2	32.4	42.3

Source: NSSO: *Situation Assessment Survey of Farmers, 2003*.

IV. DEBT BY INTEREST RATES

3.16 Table 3.6 shows that interest rates charged by the non-institutional agencies were much higher than those charged by institutional agencies for outstanding debt as on end June 2002. About 85 per cent of outstanding debt of cultivator households from institutional agencies was in the interest range of 12 to 20 per cent per annum. On the other hand, 36 per cent of cultivator households' outstanding debt from non-institutional agencies was at the interest range of 20 to 25 per cent and another 38 per cent of outstanding debt at high interest rate of 30 per cent and above. This shows the exploitative nature of non-institutional credit market.

Table 3.6
Distribution of Debt by Interest Rates and Source for Cultivator Households: 2002

	Institutional	Non-Institutional
Nil	0.5	17.4
0-6	1.8	2.3
6-10	3.0	0.3
10-12	7.4	0.6
12-15	50.0	1.6
15-20	34.8	2.7
20-25	1.4	36.2
25-30	0.0	0.3
> 30	0.3	38.2
All	100.0	100.0

Source: NSSO, *Household Indebtedness in India*, All India Debt and Investment Survey (January-December 2003), NSS 59th Round, Report No. 501, 2005.

V. INDEBTEDNESS BY PURPOSE

3.17 A substantial proportion of cultivator households' debt was for productive purposes at the all-India level ((Table 3.7). However, debt for productive purposes as a percentage of total debt declined from 72 per cent in 1981 to 63 per cent in 2002. Similarly the share of debt incurred for farm business declined from 64 per cent in 1981 to 53 per cent in 2002. Within farm business expenditure, the share of capital expenditure declined from 45.3 per cent to 34.3 per cent. The increase in capital expenditure for non-farm business could not fully compensate the fall in farm business expenditure, which resulted in a fall in the share of overall productive expenditure between 1981 and 2002.

3.18 There were substantial inter-state variations in the purposes for which debt was incurred (Table 3.8, Figure 3.4). Outstanding debt for productive purposes varied from 40 per cent in Assam, 44 per cent in Kerala and 47 per cent in Bihar to 80 per cent in Maharashtra, 78 per cent in Karnataka and 75 per in Gujarat. The outstanding debt in the states which reported suicides (Andhra Pradesh, Karnataka, Maharashtra and Punjab) was incurred largely for productive purposes.

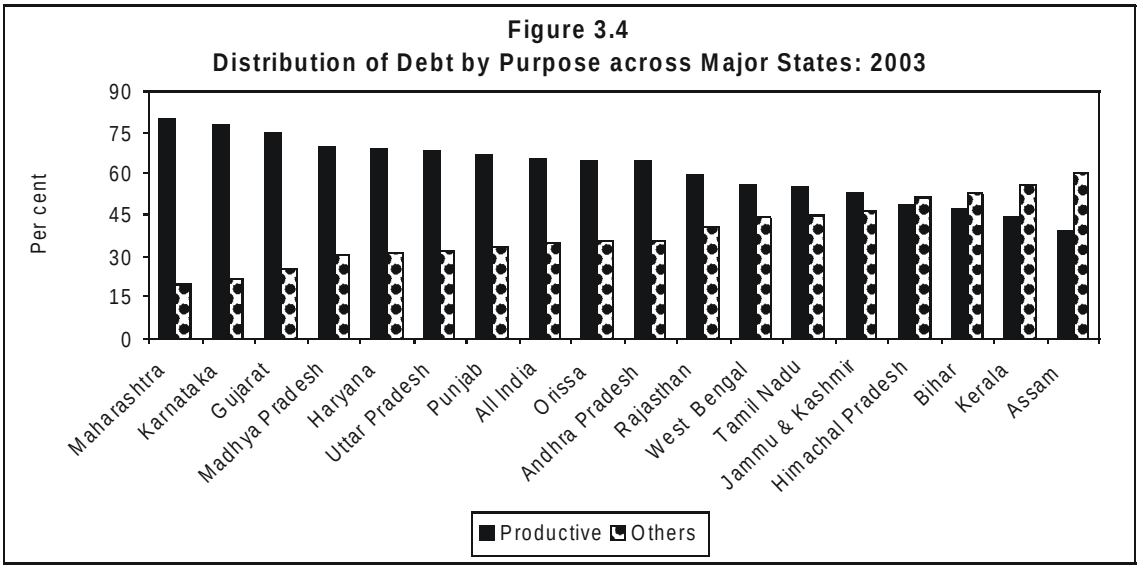
Table 3.7
Distribution of Debt by Purpose among Rural Cultivator Households: 1961-2002

(In Percentages)

Purpose	1961	1971	1981	2002
Productive	40.1	54.0	71.6	62.9
Farm-Business	36.6	49.7	63.8	52.5
Capital Expenditure	26.8	34.7	45.3	34.3
Current Expenditure	9.8	15.0	18.5	18.2
Non-Farm Business	3.5	4.3	7.8	9.4
Capital Expenditure	1.4	3.2	6.3	7.4
Current Expenditure	2.1	1.1	1.5	2.0
Non-Productive	60.0	46.0	28.4	38.1
Household Expenditure	49.2	37.8	20.0	27.7
Other Purposes	10.8	7.2	8.4	10.4
Repayment of Debt	5.0	1.5	0.1	1.5
Expenditure on Litigation	1.8	0.7	0.8	0.3
Financial Investment	0.2	0.2	1.0	0.6
All Purposes	100.0	100.0	100.0	100.0

Source : RBI, *All India Rural Debt and Investment Survey, 1961-62* and NSSO, *All India Debt and Investment Surveys, 1971-72, 1981-82* and *2003*.

Figure 3.4
Distribution of Debt by Purpose across Major States: 2003



Source: As in Table 3.8.

Table 3.8
Distribution of Debt by Purpose across Major States: 2003

(In Percentages)

States	Productive				Others					Total
	Farm Business Capital	Farm Business Current	Other	Total	Consumption	Marriages & Ceremonies	Education	Medical	Others	
Andhra Pradesh	23.4	38.1	3.2	64.7	11.5	9.6	1.4	2.4	10.5	100.0
Assam	16.6	6.7	16.2	39.5	12.4	11.8	0.1	1.5	34.8	100.0
Bihar	30.8	8.6	7.6	47.0	6.4	22.9	2.3	10.2	11.2	100.0
Gujarat	20.3	50.3	3.9	74.5	6.3	10.2	0.5	3.0	5.6	100.0
Haryana	36.0	26.2	6.8	69.0	4.8	14.0	0.0	2.0	10.3	100.0
Himachal Pradesh	9.4	10.1	29.0	48.5	6.6	10.2	0.9	2.9	30.9	100.0
Jammu & Kashmir	26.0	3.2	24.1	53.3	18.3	9.3	0.0	2.0	17.1	100.0
Karnataka	30.7	37.5	9.8	78.0	5.6	7.4	0.6	0.2	8.1	100.0
Kerala	11.0	10.4	22.8	44.2	10.2	11.2	1.4	2.5	30.5	100.0
Madhya Pr.	47.0	21.3	1.4	69.7	9.6	14.4	0.1	3.6	2.7	100.0
Maharashtra	37.9	37.5	4.8	80.2	4.2	4.9	0.9	1.5	8.3	100.0
Orissa	28.9	24.4	11.5	64.8	11.4	14.0	0.1	2.9	6.9	100.0
Punjab	26.4	36.0	4.4	66.8	8.5	10.2	0.0	2.6	12.0	100.0
Rajasthan	37.5	19.7	2.2	59.4	13.8	17.6	0.8	3.9	4.4	100.0
Tamil Nadu	24.3	25.1	5.5	54.9	13.1	8.7	2.6	4.1	16.6	100.0
Uttar Pradesh	40.3	20.6	7.0	67.9	6.8	11.8	0.2	6.1	7.1	100.0
West Bengal	24.4	21.3	10.3	56.0	7.2	11.1	0.5	5.1	20.1	100.0
All India	30.6	27.8	6.7	65.1	8.8	11.1	0.8	3.3	10.8	100.0

Source: NSSO: *Situation Assessment Survey of Farmers, 2003*.

3.19 Indebtedness for productive purpose was generally high in states with high incidence of indebtedness and low in states with low incidence of indebtedness (Table 3.8). Debt incurred by farmers for marriages and social ceremonies was also very significant in some states. Though Bihar had low level of debt per farmer household, 23 per cent of the outstanding debt was for marriages and ceremonies. This was much higher than the all-India average of 11 per cent.

VI. FARMERS' ANNUAL BORROWING AND REPAYMENTS

3.20 The trends in annual borrowings (flow) are similar to those of outstanding debt (stock). The percentage of farmer households' borrowings from institutional sources in total borrowings increased very rapidly during the 1970s but stagnated at levels achieved in 1981. The rapid growth in the earlier period was primarily due to nationalisation of banks and policy reorientation in favour of expanding credit to agriculture (Table 3.9).

3.21 Contrary to the general belief that there are more defaults of institutional debt compared to non-institutional borrowings, the recent development in the repayment profile of cultivator households shows marginally better compliance of institutional borrowings. During 2002-03, in the case of institutional credit, cultivator households repaid 14 per cent of loans taken during the year and 49 per cent of the loans taken prior to that year. In the case of non-institutional sources, the corresponding proportions were 12 and 39 per cent (AIDIS, 2003).

Table 3.9
Institutional Share in Annual Cash Borrowings

(In Percentages)

Occupation	1971-72	1981-82	1991-92	2002-03
Rural	19.7	54.5	53.3	57.2
Cultivator	21.7	56.2	55.0	59.5
Non-Cultivator	7.7	40.4	47.1	51.3

Source: NSSO, *Household Borrowings and Repayment in India during 1.7.2002 to 30.6.2003*, All India Debt and Investment Survey (January-December 2003), NSS 59th Round, Report No 502, 2006.

VII. SUMMING UP

3.22 The analysis of indebtedness among farmer households shows that about half of them were in debt and three-fifths of their debt was owed to institutional sources. Of the total debt of about Rs. 1.12 lakh crore in 2003, Rs.48,000 crore was sourced from non-institutional agencies, of which Rs.18,000 crore of debt carried an interest rate greater than 30 per cent. There is a need to

relieve the farmers from private debt carrying high interest rate by transferring it to institutional agencies.

3.23 Farmers' indebtedness was strikingly a regional phenomenon; it was low in less developed states particularly hill states and generally high in agriculturally developed states. In all states which had reported suicides among farmers, the incidence as well as debt per farmer household was high. However, sources of debt varied. For example, in Maharashtra, the major source was institutional agencies, whereas in Andhra Pradesh, non-institutional agencies accounted for bulk of the debt. This suggests that while formalisation of informal debt is an important step in reducing debt burden of farmers, other measures to ensure assured income from farm and non-farm sources are equally essential.

3.24 Contrary to the often-held view, a major share of farmers' debt (more than 60 per cent in most of the states) was for productive purposes. However, there has been a marginal decline in the 1990s due to a decline in the share of debt incurred for capital expenditure. This declining trend needs to be reversed.

CHAPTER 4

FARMERS' DISTRESS, RELIEF AND REHABILITATION

I. INTRODUCTION

4.1 The spate of farmers' suicides witnessed in several parts of the country in recent years is a manifestation of the larger agrarian crisis. Recent data indicate that the incidence of suicides among farmers is increasing. Several studies as well as media reports have highlighted indebtedness as one of the most important causative factors. The indebtedness of farmers is largely on account of increasing costs and poor returns from cultivation. The risk also arises for upwardly mobile farmers cultivating commercial crops. In addition to the agricultural crisis, the farmer is burdened with rising costs of meeting basic needs like education of children and family health care. As a result there has been pervasive distress among the farming community. The nature and incidence of suicides among farmers is analysed in the following section. The severity of distress in some parts of the country have led to intervention by the central and some state governments which have introduced relief and rehabilitation measures in favour of farmers and farming. This is discussed in the latter part of this chapter.

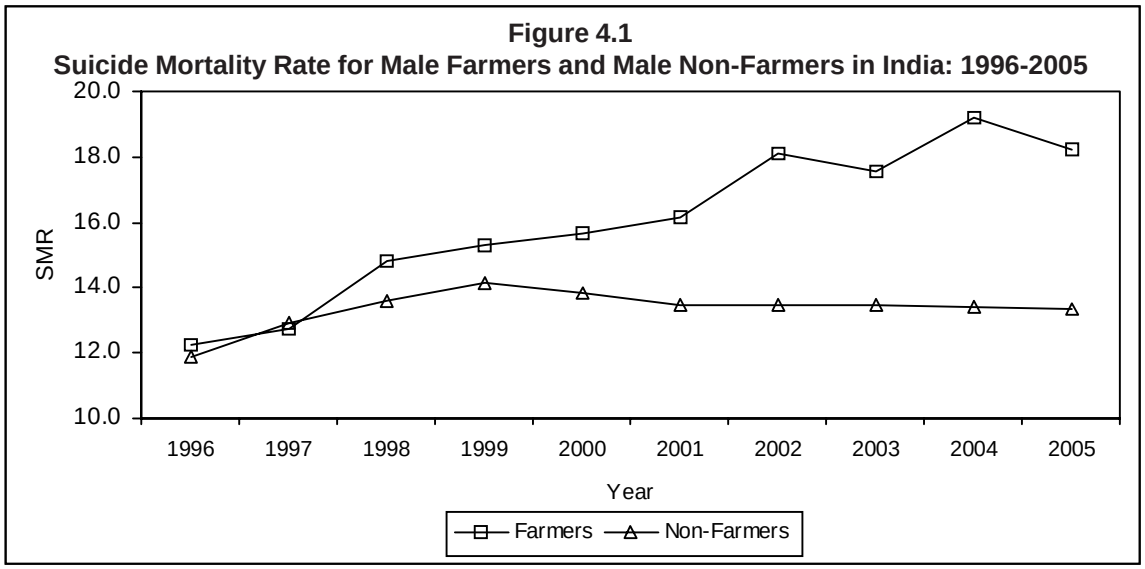
II. FARMERS' SUICIDES

4.2 Before addressing the incidence of farmers' suicides it may be pointed out that suicide is a complex and multifaceted phenomenon. The risk factors can be either in the neurobiological or the socio-economic domain. The former are internal to the individual and are considered as predisposing factors whereas the latter are external in nature and identified as the precipitating factors. Some of the neurobiological factors may also have their roots in the socio-economic domain. A combination of growing risk factors among the farming community along with increasing incidence of farmers' suicides is indicative of a larger socio-economic malaise. This implies that for every farmer who has committed suicide there are many more in distress.

4.3 One of the main problems in relating farmers' suicides with the emerging agrarian crisis lies in the nature of the available data. It is true that media reports were the first to highlight this issue, but these sources cannot be used for arriving at a complete picture. Some micro studies help in linking agrarian distress to suicides. Consistent data at the National and State level are provided by the National Crime Records Bureau (NCRB), which has also been providing profession-wise distribution of suicides since the mid-1990s.

4.4 The suicide mortality rate (SMR, suicide deaths per 100,000 persons) for male farmers and male non-farmers was more or less the same at about 12 in 1996. But for male farmers it increased from 12.3 in 1996 to a peak of 19.2 in 2004, and then declined to 18.2 in 2005, whereas the SMR for male non-farmers increased from 11.9 in 1996 to peak at 14.2 in 2000 and thereafter declined to 13.4 in 2005 (Figure 4.1). It is this surge in the SMR for male farmers by 4.8 per cent per annum while there was only a marginal increase for male non-farmers. The period of increasing incidence in farmers' suicides coincides with that of the agrarian crisis discussed in chapter 1.

Figure 4.1
Suicide Mortality Rate for Male Farmers and Male Non-Farmers in India: 1996-2005

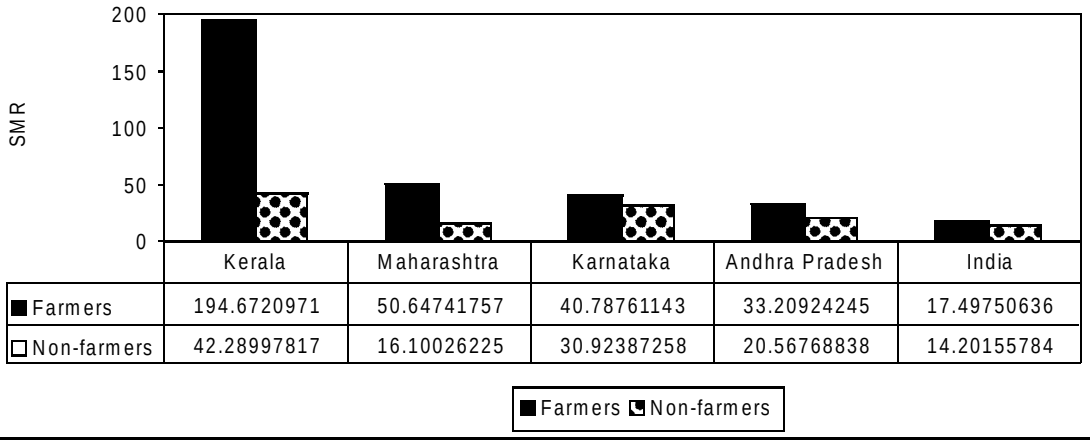


Note : Suicide Mortality Rate (SMR) calculations are based on suicides data from National Crime Records Bureau (NCRB). Population figures of 1991 and 2001 were interpolated/extrapolated to obtain 5+ years for cultivators and non-cultivators by sex.

Source: National Crime Records Bureau, *Accidental Deaths and Suicides in India*, Various Years, and *Census of India, 1991* and *2001*.

4.5 During the period 2001-05, 86,922 farmers committed suicide. Of these, 54 per cent were from the four states of Andhra Pradesh, Karnataka, Kerala and Maharashtra. In these states, the SMR for male farmers was higher than that for male non-farmers and was also above the national average of 17.5 for male farmers: Kerala (195), Maharashtra (51), Karnataka (41) and Andhra Pradesh (33) (Figure 4.2). The gap between farmers and non-farmers SMR was particularly higher for Kerala and Maharashtra. Compared to the national average for male farmers and the states average for male non-farmers, SMR for male farmers were also higher in the states of Chhattisgarh (45) and Tamil Nadu (32) among major states. The incidences of farmers' suicides were also relatively higher in Pondicherry, Dadra & Nagar Haveli, Delhi, Goa and Sikkim among smaller states and union territories.

Figure 4.2
Suicide Mortality Rate for Male Farmers and Male Non-Farmers in Selected States: 2001-05

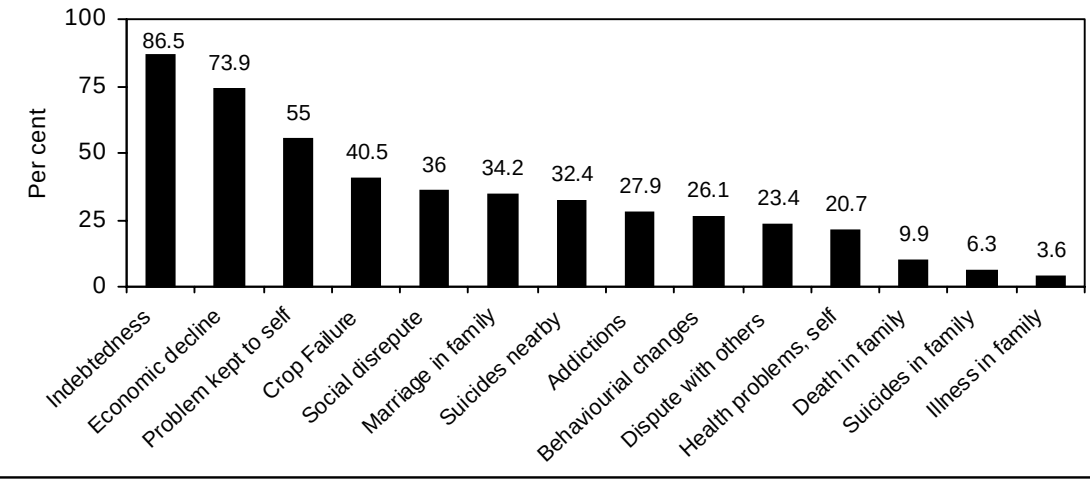


	Kerala	Maharashtra	Karnataka	Andhra Pradesh	India
Farmers	194.6720971	50.64741757	40.78761143	33.20924245	17.49750636
Non-farmers	42.28997817	16.10026225	30.92387258	20.56768838	14.20155784

Source: National Crime Records Bureau, *Accidental Deaths and Suicides in India*, Various Years, and *Census of India, 2001*.

4.6 In most of the studies, indebtedness is one factor linked with farmers' suicides. This co-exists with other risk factors such as decline in economic status, crop failure, dent in social position and the inability to meet social obligations. Further, various risk factors can reinforce each other. A recent study in Maharashtra identifies multiple factors; the distribution of some of the risk factors is given in Figure 4.3.

Figure 4.3
Distribution of Risk Factors in Maharashtra



Source : Srijit Mishra, *Suicide of Farmers in Maharashtra*, Indira Gandhi Institute of Development Research, 2006.

4.7 Figure 4.3 brings out that indebtedness was the most important associated risk factor among those who committed suicide**.** The problem is not with indebtedness *per se*, it arises when the farmer is not able to meet his repayment commitments due to crop failure or because of the other risk factors. Studies that compare suicide case households with a set of non-suicide control households indicate that the former on average have a higher outstanding amount of credit even after normalising for land size and family size. More importantly, the former set of households has a lower asset base and lower income largely because of lower returns from cultivation but higher family size and higher household expenditure.

4.8 Indebtedness is an important factor associated with suicides, but it is not the only factor. Thus, farmers face multiple risks that reinforce each other. In addition to the weather related uncertainties, the farmer is also faced with market, technology, spurious inputs and credit related vulnerabilities. In the absence of risk mitigation strategies the farmer is at the receiving end. Under duress some farmers end up committing suicide.

4.9 It is the agrarian distress and the increasing incidence of suicides has led to public policy interventions by the central and state governments in Andhra Pradesh, Karnataka, Kerala and Maharashtra. In addition, the Government of Punjab has also taken some initiatives to provide relief to farmers.

III. RELIEF AND REHABILITATION

4.10 With a view to providing relief to the farmers, the Government of India and various State Governments have come out with rehabilitation packages. They are reviewed below.

The Prime Minister's Package

4.11 The Prime Minister announced a comprehensive package to provide relief to the distressed farmers in July 2006. It addresses the causes for distress and provides scope for rehabilitation and relief to farmers in the 31 identified districts spread across the four states of Andhra Pradesh, Karnataka, Kerala and Maharashtra.

4.12 The rehabilitation package for the four states is to the tune of Rs. 16978.69 crore consisting of Rs. 10579.43 crore as subsidy/grants and Rs 6399.26 crore as loan. The package is to be implemented over a period of three years, from 2006-07 to 2008-09. It includes both short term and medium-term measures. The credit component includes improved supply of institutional credit, waiving of the entire interest on overdue loans as on July 01, 2006 and provision of fresh credit by the banking system, increase in supply of credit and rescheduling of overdue loans over a period of three-to-five years with a one year moratorium. The burden of waiver of overdue interest is to be shared equally by the central and state governments.

4.13 The non-credit component of the package aims to revive the livelihood base of the distressed farmers. Schemes involving irrigation, watershed development, diversifying agriculture towards horticulture are to be implemented and linked with agro and fruit processing and development of allied and non-farm sector activities (Table 4.1).

Table 4.1
Financial Allocation of Prime Minister's Relief Package

(Rs. crore)

Particulars*	Maharashtra	Karnataka	Andhra Pradesh	Kerala	Total
A. Ex-gratia assistance from PMNRF	3.00	3.00	8.00	1.50	15.50
B. Credit Component					
i) Credit flow (Year 2006-07)	1275.00	3076.20	13817.78	1945.07	20114.05
ii) Reschedulement of loan, debt relief#	1296.00	1194.52	5745.76	815.53	9051.81
iii) Waiver of overdue interest as on 30.06.2006	712.00	209.81	1436.44	360.00	2718.25
C. Non-credit Component					
i) Assured irrigation	2177.26	1666.81	5789.00	105.03	9738.10
ii) Micro irrigation	78.00	64.00	640.00	19.53	801.53
iii) Watershed Development, Water harvesting schemes and check dams	360.00	360.00	960.00	180.00	1860.00
iv) Extension services	3.00	3.00	8.00	1.50	15.50
v) Seed Replacement	180.00	178.00	470.18	1.92	830.10
vi) National Horticulture Mission	225.00	106.15	75.30	46.33	452.78
vii) Subsidiary Income through Livestock, Cattle, Fodder, Fisheries	135.00	98.87	263.63	49.43	546.93
Total$	**3873.26**	**2689.64**	**9650.55**	**765.24**	**16978.69**

Note : PMNRF denotes Prime Ministers National Relief Fund

* All the components, except credit flow, are to be implemented over a period of three years, 2006-07 to 2008-09.

\# Overdue loan amount as on June 30, 2006 will be rescheduled/restructured.

$ Total is the sum of ex-gratia payment, waiver of overdue interest and non-credit component. *Source*: Government of India

4.14 The implementation of the package provides for state-level committees consisting of the representatives of the central and state governments concerned with coordination and supervision, district-level committees and Panchayati Raj Institutions (PRIs) and creation of appropriate institutional structure and special purpose cooperatives/community based organisations at the local level for delivery of the package and optimum utilisation of resources in a time-bound manner.

4.15 The credit components of the rehabilitation package are being implemented by the commercial banks, Regional Rural Banks (RRBs), and cooperative banks and the Ministry of Finance, Government of India is supervising and monitoring their implementation. Components pertaining to watershed development, checkdams and rainwater harvesting structures are being implemented by the National Bank for Agriculture and Rural Development (NABARD). The assured irrigation component (major, medium and minor irrigation schemes) are being implemented by the concerned line departments of the states and are supervised and monitored by the Ministry of Water Resouces, Government of India. The extension service, seed replacement and horticulture aspects are under the purview of the Department of Agriculture and Cooperation. The subsidiary income activities like livestock, cattle, fodder and fisheries are being implemented by the Department of Animal Husbandry, Dairying and Fisheries.

Credit Component

4.16 The rationale behind the credit component was to build an efficient and viable farming system by providing adequate credit. The credit requirements for the farmers in these districts were assessed based on the available potential of the districts and credit absorption capacity of the farmers. Lead banks are playing a facilitating role in the achievement of the credit component in some districts.

4.17 Against an overall target of Rs. 2718.25 crore for all the four states, the achievement was Rs. 3680.64 (135 per cent) under waiver of interest on overdue loans as on 1 July 2006. The states of Andhra Pradesh, Karnataka and Maharashtra have exceeded their targets. Kerala achieved 54 per cent of the target. For all the four states taken together principal amount to the tune of Rs. 10489.5 crore has been rescheduled against an allocation of Rs. 9051.81 crore. While Andhra Pradesh, Karnataka and Maharashtra exceeded their allocated targets, Kerala achieved only 43 per cent of the target. Fresh loans amounting to Rs. 17907.92 crore have been disbursed as against the allocated target of Rs. 20113.85 crore. Kerala and Maharashtra exceeded their targets in disbursing fresh loans whereas the other two states achieved two-thirds of their targets.

4.18 The gap in the off take of fresh credit in three states (Andhra Pradesh, Karnataka and Maharahtra) indicates that the credit needs of the farmers were not assessed accurately. The credit flow targets do not appear to have been based on a proper assessment of the credit absorption capacity at the farm/household level. In order to ensure that the basic objectives of providing farm credit are not distorted, disbursements should have been made only after proper project appraisal. This also calls for greater co-ordination among banks and block level officials at the ground level in identifying the genuine credit needs of the people.

Non-Credit Component

Irrigation

4.19 Utilisation rates varied across states and between irrigation schemes. In the case of major irrigation schemes, delay ocurred because for some of them like Accelerated Irrigation Benefit Programme (AIBP) sanction has to be obtained from the Planning Commission and for many others from the Ministry of Environment and Forest and Tribal Affairs. This is a time consuming process. The progress is poor under minor irrigation in the case of Andhra Pradesh and Karnataka due to the existence of grey blocks. The utilisation rate is better for micro irrigation.

Table 4.2
Allocation and Achievement under the Assured Irrigation Component of Relief Package: 2006-07

(Rs. crore)

	Major		Medium		Minor	
	Allo-cation	Achieve-ment	Allo-cation	Achieve-ment	Allo-cation	Achieve-ment
Andhra Pradesh	1078.00	139.44	108.33	114.04	744.00	274.03*
Karnataka	401.35	NA	2.05	NA	152.70	2.32*
Kerala	—	—	11.66	NA	22.34	4.69*
Maharashtra	420.14	2.03	156.05	38.01	149.56	117.59*

Note : * Amount sanctioned by National Bank for Agriculture and Rural Development (NABARD) under Rural Infrastructure Development Fund (RIDF). Achievement figures as on 28.02.2007.

Source : NABARD.

Watershed Development, Rainwater Harvesting and Check Dams

4.20 The watershed development programme in the relief package includes i) construction of 500 check dams per district per year, ii) treatment of 15,000 hectares per district per year out of the Watershed Development Fund parked with NABARD and the additional 30,000 hectares to be treated by availing of loans under the RIDF by the respective state governments, and iii) rain water harvesting structures covering 1000 beneficiaries per district per year.

4.21 Progress has been extremely poor in all the states. Even Maharashtra, which had in place a shelf of sanctioned projects, could utilise only 12 per cent of its financial allocation of Rs.54 crore in the year. Kerala falls under high rainfall area and no watershed projects are being implemented in the state under any of the Government/NABARD programmes. As such,

the concept of watershed development is relatively new to the state; all the partner institutions involved in the implementation of the project are required to be sensitised vigorously. In the case of Andhra Pradesh, the state government was already availing of loan from the Watershed Development Fund at the time the package was annonuced. The switchover from loan mode to grant mode took some time due to the procedures involved in the conversion.

4.22 The process of watershed development requires five to six years as it involves the creation of awareness among the local people followed by capacity building of the community and promotion of Community Based Organisations (CBOs). In the current package, implementation time has been reduced to three years and this may create further difficulties. There is also a gap between investments made and the benefits realised.

4.23 Rainwater harvesting and construction of check dams are a non-starter in most districts. Some states which are implenting rain water schemes and enjoying cent per cent subsidy are reluctant to switch over to the scheme from the Minsitry of Agriclture under the Prime Minister's package. With regard to check dams, NABARD is yet to receive proposals from any of the states.

Other Schemes

4.24 Progress under horticulture development has been good with all states except Maharashtra fulfilling their financial targets. The reason behind this is that almost all districts were already covered under the National Horticulture Mission.

4.25 Provision of extension services through the Agricultural Technology Management Agency (ATMA) under the Department of Agriculture and Cooperation, Ministry of Agriculture has been fairly good with 58.3 per cent, 78 per cent and 120 per cent utilisation of the total financial allocation in the states of Andhra Pradesh, Kerala and Maharashtra respectively for the year 2006-07. However, Karnataka's performance has been poor. Extension and rural advisory services have a pivotal role to play in circumstances of distress. The budget for extension in the package is inadequate in relation to the requirements.

4.26 The progress under livestock purchase, installation of chilling plants and fisheries is also slow with utilisation of financial allocations ranging from 34 per cent in Andhra Pradesh to 54 per cent in Karnataka. The state governments do not have any special mechanism for expeditious clearance and implementation of the programmes envisaged under subsidiary income activities.

Measures by State Governments

Bereaved Families

4.27 Each farmer household bereaved by suicide receives cash compensation. The amount is Rs. 50,000 in Karnataka and Kerala, Rs. 1 lakh in Maharashtra and Rs.1.5 lakh in Andhra

Pradesh. In most states, the amount is disbursed on the basis of verification by the state official machinery as to whether the suicide was caused because of agrarian crisis or not. In addition, Andhra Pradesh has a scheme of settling the existing loans from formal and informal sources by using part of the ex-gratia grant and taking care of the educational needs of all the school going children. In Kerala, loans upto Rs.1 lakh from formal sources are waived. However, in none of the states is there any follow up assessment of the condition of these households.

Selected Promotional Measures

Input Subsidy in Andhra Pradesh

4.28 The state government provided subsidies on fertilisers and seeds to all the farmers in the state. In addition, farmers' arrears of past dues on power bills amounting to Rs.1250 crore were written off. This measure was well received by the farming community. However, farmers in ground water grey areas did not receive significant benefits.

Polam Badi (Farm School) in Andhra Pradesh

4.29 The Polam Badi is conducted in one village per Mandal (about 1100 villages) covering important crops (but only one crop per village) on every Wednesday of the week for the farmers who together hold up to a total 10 hectares (about 30 farmers). The Agricultural Extension Officers and Mandal Agricultural Officer visit the village/Polam Badi on the specified day and educate the farmers on different aspects of management practices with regard to a selected crop on the field. They provide a schedule of practices for the following week and the learning experiences are reviewed in subsequent weeks. Scientists from Agricultural University/Research Laboratories also visit the Polam Badi to interact with the farmers.

Seed Village Programme in Andhra Pradesh

4.30 The Seed Village Programme was launched to enable selected farmers to produce quality certified seeds. The foundation seeds are procured from the Agricultural University for further multiplication. A compact area of 10 hectares covered by 50 farmers is selected for the seed village programme. The foundation seed is supplied by the agricultural universities / state seed corporations on a subsidised basis.

Yeshaswani Health Care Scheme in Karnataka

4.31 The Yeshaswani Cooperative Farmers Health Care Scheme was introduced throughout the rural region of Karnataka in 2000 for a premium payment of Rs.120 per year per family. Participants are covered for all surgical interventions and for outpatient services at any of the designated network hospitals. The funds are routed through various Cooperative Societies in the

State. The Department of Co-operation, Government of Karnataka, handles both the implementation and administration of the scheme in the districts.

Floor Price Scheme For Agricultural/Horticultural Commodities in Karnataka

4.32 A Revolving Fund of Rs. 260 crore has been created by the State Government for market intervention operations. The objective of the scheme is to protect the farmers against distress sale of agricultural/horticultural commodities by assuring a minimum support price. It is applicable to the entire state of Karnataka for agricultural and horticultural produce, which are not covered in the state under the Minimum Support Price (MSP) of Government of India. State and district level committees have been constituted for its operation. The commodities covered under the scheme are Maize, Jowar, Paddy, Ragi, Tur, Black gram, Green Gram, Copra, Arecanut, Coffee, Onion, Potato and Tomato.

Farmers Debt Relief in Kerala

4.33 The Kerala government has introduced 'The Kerala Farmers Debt Relief Commission Bill 2006', which aims at providing debt relief to farmers. It also provides for constitution of a commission, with adjudicatory, conciliatory and negotiating functions, for redress of the grievances of farmers who have borrowed from state owned institutions and money lenders and to recommend appropriate measures for providing relief to indebted farmers.

Joint Cotton Farming in Maharashtra

4.34 The Government of Maharashtra has encouraged joint farming of cotton by farmers. The objective is to bring together a group of farmers and to facilitate arrangements for the marketing with textile mills. In the distressed districts, seven textile mills, 15 ginning mills and three spinning mills entered into joint cotton farming Memorandum of Understanding (MoUs) with 7304 farmers with 12,500 hectares in six districts.

Horticulture-MEGS Linkage in Maharashtra

4.35 The Maharashtra government has undertaken innovative measures to promote horticulture through the Maharashtra Employment Guarantee Scheme (MEGS). Wages are given under the MEGS or other similar schemes for about three years - the time required for trees to bear fruit. Non-wage expenses for land development, water harvesting structures and sapling of fruit bearing trees are met from other schemes. Various Non Governmental Organisations (NGOs) like Bharat Agro Industries Foundation (BAIF) are involved in facilitating this. Their intervention in some tribal areas has stopped seasonal migration, improved enrolment, retention and attendance of school going children, and enhanced consumption and nutritional intake of family members.

IV. SOME LESSONS

4.36 The Prime Minister's package recognises the need for complementarity of credit and non-credit interventions. However , the package is universal in nature and does not take into account the specificities of various districts. There could be differences in agro-economic conditions in terms of rainfall, soil conditions and cropping pattern, among others. The causes of distress differ across districts. For instance, in some it is a matter of crop failure while in others it could be because of price collapse. Whenever there is distress, all farmers suffer but the intensity of suffering of the small and marginal farmers is higher because of their lower asset base.

4.37 There is no coordination between different agencies implementing the schemes. Further, no information is available on the impact of the scheme on the people. In addition to financial targets in the Prime Minister's package, physical targets need to be set and monitored. Evaluation studies of the schemes to provide feedback for mid term corrections are urgently required. This will facilitate the realisation of the full potential of the Prime Minister's package.

4.38 The performance of various states with regard to the package has not been uniform and has fallen far short of the financial targets in most states. However, some states have introduced novel schemes such as debt redemption in Kerala, Polam Badi in Andhra Pradesh, Yeshaswani health insurance schemes in Karnataka and horticulture programmes in Maharashtra. These schemes may be considered for emulation by other states.

CHAPTER 5

TASKS AHEAD

I. INTRODUCTION

5.1 The disquieting trends in Indian agriculture persisting since the mid-nineties include: declining profitability of agriculture, increasing risks, degradation of natural resources and deteriorating agricultural extension. The agricultural growth has been hardly 2.2 per cent per annum falling short of the targeted 4.0 per cent growth in the Tenth Five Year Plan. The crop sector witnessed a marked decline in the growth rate. Livestock and horticultural crops which provided the lead in the first half of 1990s experienced a deceleration in growth in the period after 1995-96. The slow down in agricultural growth has been accompanied by a slow down in agricultural investment, especially by the public sector, and in agricultural credit - the most powerful drivers of agricultural growth. Private investment in agriculture has been increasing but could not compensate for the fall in public investment. Econometric studies reveal a decline in total factor productivity in agriculture between 1980s and 1990s. The large number of farmers' suicides reported in states such as Andhra Pradesh, Karnataka, Kerala, Maharashtra, and Punjab in the recent years is an indication of the deep-rooted crisis in agriculture. Remedial action will be needed on several fronts to rejuvenate agriculture. Agricultural policy must influence both the process of income generation and the distribution of agricultural income such that agricultural growth benefits the small and marginal farmers relatively more.

II. ISSUES IN AGRICULTURAL GROWTH

5.2 An inclusive four per cent agricultural growth is considered an absolute necessity for mitigating farmers' distress until alternative livelihood opportunities become available to farmers. Higher agricultural growth, if sustained over a long period would foster agricultural and rural diversification that includes: dairying, animal husbandry, fisheries and horticulture among others. It would also stimulate the growth of agro-processing and small-scale rural industries to meet growing domestic and export demand. Rural non-farm development induced by agricultural growth through forward and backward linkages would be an important measure of rural transformation.

5.3 Studies show that household consumption of milk and milk products is likely to increase at more than 5 per cent per annum; meat, egg and fish; and sugar, at four to five per cent, and other food at more than 5 per cent. Historically, diversification in agricultural production has been in line with changes in the structure of domestic food demand. Supply chains need to be developed to facilitate the adjustment of agricultural production to these changes. The real challenge lies in linking small farmers with high value agriculture by organising them as members of Self Help Groups (SHGs), Co-operatives and Producer Association Companies.

5.4 Irrigation and technology development supported by innovative institutional arrangements are crucial for achieving growth driven by productivity. It is important to adopt a differentiated

growth strategy for irrigated and rainfed areas. Growth in irrigated agriculture can come through the normal market mechanism by putting in place a decentralised day-to-day management of infrastructure facilities. For example, farmers' associations could be entrusted with the responsibility for marketing and managing small irrigation works wherever feasible, especially if they were given the power to collect water rates and retain a share of it for maintenance and development. Modernisation of marketing infrastructure that takes advantage of the recent innovations in communications and information technologies and infrastructure needed for rural non-farm sector should be policy priorities for irrigated areas.

5.5 A large part of unirrigated areas is characterised by low and fluctuating productivity levels, environmental degradation, seasonal migration of farmers, weak institutional network and heavy indebtedness. The farmers are vulnerable to weather induced risks besides market aberrations, missing markets (in the case of remote areas) and institutional biases. The current programmes for soil and moisture conservation in such areas need considerable strengthening through better planning of work on a watershed basis by involving people and improving coordination between various departments. To minimise external risks, early warning system should be evolved with community participation. Appropriate action plans have to be designed with community involvement. Panchayati Raj Institutions (PRIs), SHGs, Community Based Organisations (CBOs) and Non Governmental Organisations (NGOs) have to be trained in the areas of disaster preparedness and disaster mitigation on a large scale.

5.6 There has been a trend degradation of common property resources like water, pastures and forests. It is absolutely necessary that these resources are maintained, developed and utilised sustainably. It should also be ensured that the discretionary and discriminatory practices that often lead to lack of access by the disadvantaged sections are systematically eliminated by reorienting local institutions, including PRIs.

5.7 It is important to recognise the heterogeneity among farmers. Subsistence farmers, mostly located in resource poor regions, are characterised by low investment, low productivity technologies, exploitative links with informal credit agencies leading to long term indebtedness as well as a variety of visible and invisible bondages. To address their distress, intervention by external agencies at the base level is an absolute necessity since farmers are too weak to respond on their own. This underlines the need to organise farmers for collective action. At the other extreme, modern farmers are getting integrated with national and global markets and high productivity technology. They require infrastructure and services for effective integration with organised markets. These farmers are unprepared for liberalisation and globalisation and are often too weak to cope with risks and uncertainties. In between the two polar categories of farmers, there are many intermediate types involving different combinations and shades of polar types, each requiring specific interventions.

III. FACTORS UNDERLYING GROWTH

Land

5.8 Net cropped area has remained at 135-140 million hectares since 1970-71 and gross cropped area more or less stagnated at 185 million hectares during the last 15 years. However, there is some scope for increasing net cropped area by converting wasteland for cultivation through appropriate technological and institutional interventions. The National Rural Employment Guarantee Programme (NREGP) can be linked to the development of wastelands, and arrest land degradation in marginal lands. States such as Andhra Pradesh have adopted a Natural Resource Management (NRM) based strategy under NREGP and have been preparing action plans to take up works for soil development, moisture conservation and afforestation. In the case of tenancy farming, security of tenure needs to be provided for a minimum of three years so that some capital investment can take place in improving the quality of land. Credit support for tenants as also for purchase of land by the poor should receive priority. Further, agricultural growth is determined by both expansion of gross cropped area and improvement in yields. It has to be driven home that land is scarce and its utilisation is far from satisfactory.

Irrigation

5.9 There is a growing consensus about the need to step up the annual increase in irrigated area that declined from 2.5 million hectares per annum during the green revolution period to 0.8 million hectares per annum during the 1980s and 1990s. It is also necessary to improve the efficiency of water resource use. Irrigation increases gross cropped area by raising cropping intensity, enlarges the choice of crops by improving substitution possibilities, increases the scope for the adoption of available technologies and thereby improves agricultural productivity. It is therefore necessary to tap the unused potential of irrigation (40 per cent of the 140 million hectare irrigation potential). The slow pace of exploitation of irrigation potential is mainly due to the decline in public investment in irrigation infrastructure. Over 400 major and medium projects were in the pipeline at various stages during the Ninth Plan period. The decline in public investment and the thin spread of resources over a large number of projects are responsible for the delay in completion of these projects. Poorer states such as Bihar, Madhya Pradesh, Orissa and Uttar Pradesh account for more than half of the unfinished major and medium irrigation projects. The latest plan document has recognised that “a large number of irrigation projects have remained under construction for many years.” The creation of additional irrigation potential is now being envisaged under the Bharat Nirman programme. Poor maintenance of the existing system of surface irrigation has contributed to low efficiency in water use (water use efficiency was less than 40 per cent, much below the attainable 65 per cent). The situation with respect to minor irrigation has been relatively better but over exploitation of ground water by tubewell owners has created distortions, besides contributing to a fall in the water table.

5.10 Putting in place appropriate incentives and effective regulatory system is essential for promoting water use efficiency. nstitutional reforms, such as the Water User Associations (WUAs) of Andhra Pradesh need to be promoted for improving efficiency and ensuring equity besides empowering the farm community. Watershed Users Associations could work as federated agencies in a democratic and participatory manner. Integrated water management has to be taken up by the village level federation of water users associations. This federation would address issues of conservation and augmentation of water by taking up comprehensive plans for surface and ground water. At present, only 15 per cent of net irrigated areas is covered under participatory management. The need for building capacities of members of WUAs, and devolving powers to these associations, is well underscored.

Technology and Extension

5.11 With limited scope for extensive use of the land frontier, agricultural growth depends upon the research and development initiatives of the state and the private sector. Substantial variations in agro-climate conditions warrant the development of region specific and crop specific technologies compatible with the endowments of the farm community. India had a successful record of adoption of high yielding varieties of seeds in the green revolution period. Since then, the record on the Research and Development (R&D) front has not been impressive. Public expenditure on Agricultural Research and Extension was low at 0.49 per cent of Gross Domestic Product (GDP) (developing countries spend 0.7 per cent and developed countries two to three per cent). Public expenditure needs to be stepped up and R&D efforts should also cover institutional innovations.

5.12 The new technologies should be developed through a consultative process between agricultural scientists, extension workers and farmers so that R&D outputs will be tailor-made to the needs of the farm community. Rainfed technology has to be improved. In view of high variability in agro-climatic conditions in such unfavourable areas, research has to become increasingly location-specific with greater interaction with farmers to generate cost reducing, high yielding and drought and pest resistant technologies. The yields of major crops must be improved through a well-designed and decentralised agricultural research and extension service. Agricultural extension should go beyond the adoption of new seeds and cover marketing of agricultural products in the domestic and international markets, measures to mitigate production and marketing risks, environmental conservation and promotion of non-farm employment. A number of new initiatives have been undertaken by governments and NABARD on an experimental basis to improve the agricultural extension system. These include: Agricultural Technology Management Agency (ATMA), Agri-Clinics and Agri-Business, Farm School (*Polam Badi)* of Andhra Pradesh and *Raitha Samparka Kendras of Karnataka*. These initiatives need to be evaluated and scaled up, incorporating crop and agro-climatic requirements. *Krishi Vigyan Kendras* (KVKs) must be reformed to strengthen links between farmers and research stations. Some initiatives have also been taken up by private companies such as ITC, Mahindra, Rallis

and Tatas. However, these initiatives are mostly confined to commercial crops and are yet to make an impact.

Credit

5.13 A major area of concern is the sluggish growth of institutional credit to agriculture (See chapter 2 for a detailed analysis of the credit problem). The share of agriculture at about 10 – 11 per cent was way below the stipulated target of 18 per cent and about half of the farmers had no access to institutional finance in 2003. There is a need to examine critically the items included under priority sector lending. Further, in 2003, institutional agencies accounted for 57.7 per cent of the outstanding loan amount of the farmers, followed by money lenders (25.7 per cent) and traders (5.2 per cent) (NSSO, Report No. 498). These data suggest heavy dependency of farmers on informal sources. The picture is worse for small farmers.

5.14 Interest rates charged by informal agencies are not affordable given the productivity levels of agriculture. For instance, 38 per cent of the cash debt from informal sources outstanding in 2003 was at interest rates of 30 per cent or more whereas interest rates were less than 20 per cent for 99 per cent of the debt from institutional sources (National Sample Survey Organisation (NSSO), All India Debt and Investment Survey, 2003, 59th Round, Report No. 501).

5.15 Field investigations in Punjab suggest that farmers incurred about 5 per cent of the loan amount over and above the interest to obtain institutional credit (The Punjab State Farmers' Commission, *Flow of Funds to Farmers and Indebtedness in Punjab*, Punjab Agricultural University, Ludhiana, 2007). Both inadequacy of formal credit, enormous delays in obtaining credit from the scheduled commercial banks and cumbersome documentation have compelled the farmers to avail of high cost credit from informal sources. Recent decisions to reduce the interest rate to 7 per cent and double rural credit are welcome steps. However, given the weaknesses of the formal credit institutions, these measures may not yield the expected outcomes.

5.16 Informal credit is all pervasive in rural areas and cannot be wished away. Moreover, it has a role to perform. However, it has to be regulated. Increased supply of formal credit would act as a check on interest rates and other conditions for credit supply prevailing in the informal sector. To deal with indebtedness of farmers to the unlicensed moneylenders a modified version of the Kerala approach may be adopted. This approach involves negotiation of moneylenders' credit with the help of NGOs, CBOs, and PRIs to arrive at a negotiated settlement. The banks may provide long-term loans to indebted farmers at reasonable interest rates. A ceiling annual rate of interest of 24 per cent on informal sector loans should be imposed and strictly implemented with the help of NGOs, CBOs, and PRIs.

5.17 The successful SHG-Bank Linkage Programme may be extended to farmers by encouraging them to form SHGs. In this context, *Sree-Kshetra Dharmstala Rural Development*

Programme, which is successful in organizing the farmers, may be emulated. SHGs under *Indira Kranti Pathakam* in Andhra Pradesh is another successful experiment. These programmes are likely to ensure greater flow of credit to small and marginal farmers.

5.18 The system of agency banking with the involvement of business facilitators and business correspondents and the scheme of mobile banks can be put to use for increasing the flow of formal credit into agriculture at lower transaction costs. The Cooperatives, Federations of Farmers' SHGs and Farmers' Associations can act as business facilitators/correspondents for scheduled commercial banks and RRBs. This would significantly enhance access of small farmers and tenants to financial services in rural areas.

Marketing and Trade

5.19 Marketing is an important link in supply chain management. In small peasant dominated agriculture, the profitability of agriculture is sensitive to market fluctuations. While the role of private traders is significant in adverse market situations, due to the low bargaining power of small producers, the trader shifts the risks to the small producers. The regulation of markets, development of market infrastructure and promotion of production cum marketing cooperative societies are likely to ensure fair prices and provide better market services to the farmers and thereby minimise some of these distortions. Information Technology (IT) initiatives such as the chain of automated kiosks that provide information access to farmers have been found to be beneficial to farmers. Such interventions could empower the farmers and facilitate proper marketing decisions. The producers' market (for example *Rytu Bazars* of Andhra Pradesh, *Apni Mandis* of Punjab and Haryana) is another intervention for strengthening the position of farmers in the market system.

5.20 Healthy competition among Farmer Cooperatives, Federations of Farmers' SHGs, private trade and the government (for example Food Corporation of India) is desirable to ensure that agricultural producers get a fair price and quality services, and to curb monopoly tendencies. The success of dairy cooperatives in Gujarat and sugar cooperatives in Maharashtra suggests that integrated cooperatives will help in value addition besides minimising market risks. The Producers' Legislation Companies Second Amendment Act, (2002) allows cooperatives to register as Producer Association Companies. This provides an opportunity for farmer groups to organise themselves for strategic alliances with the corporate sector. Once the small and marginal farmers in a contiguous area come together and organise into producer association/companies they can take up demand driven crop production by using appropriate technology and negotiate directly with retailers/processors to eliminate middlemen, and increase their income.

5.21 The recent removal of restrictions on foodgrains trade and amendment of Agricultural Produce Marketing Committee (APMC) Act have improved incentives for the private sector to participate and invest in marketing infrastructure. Development of warehousing facilities and

marketing services including the facility of grading, standardisation, packing, quality certification and credit with proper institutional linkages will provide opportunities for sourcing the produce of small and marginal farmers at the farm gate. It may also facilitate the penetration of corporates. However the enlarged role of the private sector should not be at the cost of small producers and food security. The hoarding of wheat procured in Punjab and Haryana during 2005-06 seems to be a major factor underlying the steep increase in open market prices.

5.22 Since price volatility is more pronounced in the world market, the integration of domestic agriculture with global trade without putting in place necessary institutional arrangements such as monitoring of price and production trends in the world market, enhancing internal capacity to anticipate price changes in the world market, and developing required skills to manage variable tariff rate instrument to protect the domestic market is likely to increase price volatility in the domestic market. Trade liberalisation affected the domestic market prices of several agricultural commodities in the recent period, particularly those of plantation crops such as coffee, tea, rubber, pepper and dry land crops such as oilseeds. The small peasants growing plantation crops and oilseeds were hurt the most. The variable tariff rate instrument must be utilised for moderating the adverse impact of price fluctuations in the world market on domestic prices of agricultural commodities. Capability to operate the instrument should be developed. Efforts should be made to enhance the total factor productivity of agriculture to improve its competitiveness.

5.23 The first half of nineties witnessed substantial growth of agricultural exports. However, since the mid-nineties, the growth of agricultural exports has not been impressive. To gain from trade, India will have to identify commodities in which it has a comparative advantage and concerted efforts should be made to emerge as a major exporter of these strategic commodities in the world market. This requires development of an efficient supply chain, which includes the creation and maintenance of modern infrastructure (storage facilities, packing, handling, and modern communication system). The integration of small farmers with the trading of strategic commodities by organising them into cooperatives or Federations of Farmers' SHGs will be rewarding.

IV. WHAT IS TO BE DONE FOR SMALL FARMERS?

Access to Land

5.24 Pro-poor restructuring of land relations is a measure of great significance to inclusive growth. This is because protection and enlargement of control and command over land would facilitate the participation of poor in the development process. Ownership of land facilitates access to institutional credit. Land inequality affects the ability of marginal farmers to organise themselves into collectives. There is also evidence to suggest that in villages with greater land inequalities, access to public goods is worse for the poor. The desire to possess land is very strong among the poor since land ownership bestows social status.

5.25 The abolition of the land rights of intermediaries viz., *Zamindaries/Jagirdaries* carried out in the fifties was largely successful. It resulted in the emergence of middle peasantry. However, the interests of the growing middle peasantry were in conflict with those of the marginal farmers and the landless poor. Hence, the implementation of ceiling and tenancy laws, except in states like Kerala and West Bengal, was half-hearted and not fully successful. Most beneficiaries could neither take possession of the land nor cultivate it for want of financial resources and technical support. Even with these reforms, marginal and small holdings accounted for 88 per cent of total operational holdings operating 43.5 per cent of area. Their livelihood base should be strengthened and expanded by diversifying their sources of income.

5.26 Existing tenancy laws in most states are now non-functional and are promoting illegal tenancy. Freeing of the lease market and improving security of tenure would strengthen the position of marginal farmers. However, recording of information about tenants should precede any tenancy reform. Efficient lease markets may partly solve the problem of fragmentation of land holdings and make a large number of land operations viable.

5.27 Concerted efforts should be made to improve efficiency in maintenance of land related records and documentation. Electronic documentation records need to be pursued vigorously. It is also necessary to place land records on regional electronic networks so that retrieval of information, encumbrance marking and issuance of relevant certificates can be done at minimum costs and very expeditiously. Computerisation of land records would contribute to more efficient land administration.

Regulated Contract Farming

5.28 Contract farming is expected to overcome the inherent disadvantages of small farming in the context of liberalisation of Indian agriculture. The companies engaged in processing/ marketing of agricultural products enter into contract with farmers to provide modern inputs and extension services and buy back the product at a specified price. Agricultural policy envisages that contract farming accelerates technology transfer resulting in increased capital flows and assured markets for crops such as oilseeds, cotton, flowers, fruits and vegetables. At present, several agro-processing/marketing companies are engaged in corporate farming in products such as tomato (Pepsi in Rajasthan, Punjab), exotic vegetables (Trikya Foods in Maharashtra, Andhra Pradesh), mushrooms (NAFED in Haryana), gherkins (Karnataka, Andhra Pradesh), edible oil (ITC Agro in Andhra Pradesh, Karnataka) and so on. It is difficult to visualise the utility of this system at this stage.

5.29 The distribution of gains and allocation of risks between the company and the farmers depend on the bargaining power of the parties. There is a need for putting in place appropriate regulatory system and ensuring contractual obligations. It is likely that Multi National Corporations and Trans National Corporations are more interested in marketing their seeds and other inputs

rather than in production. Small farmers are likely to gain substantially if they organise themselves into federations of SHGs or cooperatives and participate in contract farming. They can also register as Producer Association Companies and process their own produce. One has to identify appropriate models for different crops and locations. The presence of multiple institutions enhances the choice of farmers.

Farmers' Distress and Rehabilitation

5.30 The present crisis in agriculture manifests itself broadly in two forms: distress associated with poverty stricken farmers struggling for subsistence and distress associated with risk prone upwardly mobile farmers. The subsistence farmers inhabit agriculturally less developed districts and their distress assumes the form of growing marginalisation, limited access to resources and low productivity. This reduces the farming community to living on the margins of subsistence. They suffer from chronic hunger irrespective of the state of weather and market and resort to a number of coping mechanisms including seasonal migration. The upwardly mobile farmers are associated with commercial/modern farming. Their distress is mainly caused by growing risks, declining public agricultural investments and support systems. The nature of distress experienced by these two types of farmer household differs and needs to be addressed differently. Further, these two types of farmer households are regionally differentiated.

5.31 The Prime Minister's Relief and Rehabilitation package for the 31 districts in four states addresses specially to distress associated with commercial/modern farming. There is also need to address the distress of subsistence farmers who inhabit mostly rainfed, agriculturally less developed and low productivity districts. These regions too need a package designed with regional specificity to address issues of moisture conservation, infrastructural development, augmentation of non-farm sources of income and employment to farmers.

Federations of Farmers' Self Help Groups

5.32 The recent SHG innovations in Andhra Pradesh (in which SHGs are federated from the village upwards to district and higher levels) can be regarded as a breakthrough into second generation SHGs with much greater capacities to help the poor in getting integrated with the mainstream. The basic benefit conferred by the SHGs on the poor is the opportunity to come together for collective action to improve their livelihoods, protect their interests and develop the capacity to participate in mainstream activities on fair terms, with much enhanced bargaining power and negotiation skills with markets and state institutions. What cannot be achieved as individuals can be achieved collectively by creating alternative institutions. Problems of missing markets and malfunctioning markets can be effectively tackled by peoples' (farmers') institutions.

5.33 While farmers' indebtedness needs a whole range of programmes - from relief and rehabilitation to better infrastructure, watershed development, access to insurance, streamlined

markets and enhanced rural-urban linkages and connectivity - these interventions will improve the livelihood base of the farmers if they are organised into functional groups like SHGs, cooperatives and farmers' associations for collective action from the grassroot level to the level of policy making bodies. It would also help poor farmers to make effective use of their entrepreneurial, organisational and leadership potentials.

5.34 SHGs at the village level and the federated tiers above can play useful roles in: i) programmes to help indebted farmers (relief, rehabilitation, counselling, surveillance, early warning); ii) programmes to improve agricultural schemes (design, implementation, delivery, monitoring and evaluation); iii) lobbying for focus on long term goals of agriculture (conservation of land and water, environmental protection); and iv) making agriculture viable and competitive (improvements in research, extensions, credit, processing, marketing). Most of the above programmes, while they may already exist, tend to be ineffective since the farmers are unorganised and marginalised in relation to the mainstream. For instance, the non-credit components of the relief package announced by the Prime Minister for distressed districts did not reach some of the distressed farmers, and those who administered the funds had no information about the condition of the farmers who received the funds and their rehabilitation. The information available with them covered only funds distributed with no details about modalities of monitoring and evaluation that could help them. Collective action by farmers through SHGs and their federations could make farmers a visible entity in mainstream, while helping them in taking initiative to put pressure on the stakeholders to operate with greater commitment towards the farmers and to exercise vigilance in ensuring that all the benefits meant for the farmers are received by them. Further, collective action would also include mutual help and cooperation to get the economies of scale and superior bargaining power. It is desirable that SHGs work closely with PRIs wherever they are effective.

5.35 The SHG model of Andhra Pradesh (AP) under *Indira Kranti Pathakam* demonstrates the possibility of such an accomplishment through the formation of SHGs of farmers. The AP-SHG should be replicated in distressed districts on a mission mode. The adoption of the AP-SHG model could be in two stages. The first stage is the formation of farmers' SHGs around active crop production and marketing activities. The second stage should encourage higher levels of economic activities leading to rural industrialisation. There should be a Farmers Livelihood Improvement Mission at the State and District levels headed by the Chief Minister and the District Collector respectively. The mission should be supported by a Livelihood Support Centre having professional expertise and manpower to organise the farmers, identify economic opportunities for the farmers, particularly for small and marginal farmers and create projects and systems in coordination with different players at different levels as in the AP-SHG model. The mission should be manned by young energetic officers with a high degree of commitment. The mission should monitor and synchronise the different sectoral programmes for farmers.

5.36 The state has to intervene actively and support the formation of such institutions to empower the disempowered farmers by promoting vigorously farmers' collective institutions.

Although a few state governments have declared support for the formation of farmers' associations, adequate priority was not given in terms of financial support. Farmer collectives must start empowering themselves by competing with markets, by complementing state institutions, by imbibing skills to negotiate with markets through building their capacities and abilities. The state has to nurture collective institutions as in the case of AP-SHG till they take firm roots.

V. RISK MANAGEMENT IN AGRICULTURE

5.37 Farmers are exposed to risks arising from rainfall variability, market price fluctuations, credit uncertainty, and adoption of new technology. The diversities in the sources of risks require a variety of instruments for protecting the farmers. In India, these include crop insurance, rainfall insurance, farm income insurance and a calamity relief fund. Most of these measures other than crop insurance are in the experimental stage.

5.38 The National Agricultural Insurance Scheme (NAIS), introduced in Rabi 1999-2000, and implemented by the Agricultural Insurance Company of India Limited (AICIL) is a major public sector initiative to mitigate yield risk. The yield loss assessment is based on 'threshold yield' and 'level of indemnity'. The threshold yield is the three year moving average yield for rice and wheat and five years moving average for other crops. The unit area for assessing the actual yield has been district and the indemnity levels fixed at 90 per cent, 80 per cent and 60 per cent for compensation under the scheme based on crop cutting experiments. The schemes cover a wide range of crops including food crops (cereals, millets and pulses), oilseeds and annual commercial/horticulture crops in respect of which past data on yield are available for sufficient number of years. Sugarcane, potato, cotton, ginger, onion, turmeric, chillies, pineapple, banana, jute, coriander, cumin and garlic have also been covered under this scheme. The entire amount of crop loan for food crops and oilseeds are insured at a premium rate which is the minimum of a prescribed ceiling or actuarial rate. The prescribed ceilings are 3.5 per cent for bajra and oilseeds during kharif, 2.5 per cent for other kharif crops, 1.5 per cent for rabi wheat and 2 per cent for other rabi crops. Premium for annual commercial/horticultural crops are based on actuarial rates. To begin with, small and marginal farmers were entitled to 50 per cent subsidy on premium which was shared equally by the central and state governments. The subsidy on premium has gradually been phased out and at present only 10 per cent of the premium is available as subsidy. The rates are uniform across states. The claims over and above 100 per cent of the premium amount and administrative costs are borne by the central and state governments. The scheme is implemented through crop loan granting banks for the regions and crops notified by the state governments and are compulsory for farmers taking crop loan from banks and voluntary for non bank loaners.

5.39 For 13 seasons (from rabi 1999-2000 to rabi 2005-06), the premium collected was Rs.2333 crore and the total claim was Rs.7507 crore. After excluding the first season, it indicates an additional expenditure of about Rs.860 crore per annum by central and state governments

over and above the administrative costs incurred by the implementing agency. The subsidy on premium till kharif 2005 was Rs.240 crore. For the entire period, the overall claim-premium ratio was 3.22. Across the 13 seasons, it varied from a minimum of 1.42 during rabi 1999-2000 to a maximum of 7.66 during rabi 2003-04. Moreover, there are significant disparities in insurance coverage across states and across crops. Up to kharif 2005, state-wise analysis indicate that Gujarat alone accounts for 26 per cent and the three states of Andhra Pradesh, Karnataka and Maharashtra account for another 41 per cent of the total claims. Crop-wise claims till rabi 2002-03 indicate that groundnut accounted for 36 per cent of claims whereas crops such as maize and jowar accounted for less than two per cent of claims each (Sidharth Sinha, "Agricultural Insurance In India: Scope for Participation of Private Insurance," *Economic and Political Weekly*, June 19, 2004). Some of the weaknesses can be attributed to adverse selection and moral hazard problems. High premium rates (for example, as high as 8 per cent for cotton and 10 per cent for banana crop in Andhra Pradesh), collusion between implementing agencies and farmers in wrongful claims and ignorance of warrantee conditions of the policies led to inefficiencies. The policy of charging uniform rates across states without taking into consideration risks and the fact that the implementing agency is not sharing any risk need critical appraisal.

5.40 The central government launched the Farm Income Insurance Scheme (FIIS) on a pilot basis in 20 districts during Rabi 2003-04 for rice and wheat. The farmer will be paid the difference between actual income and guaranteed crop income per hectare. The guaranteed income is obtained by valuing threshold yield at the minimum support price fixed by the central government and the actual income by valuing actual yield at the prevailing market price. District is the unit of area for yield considerations. The central government meets the expenditure in excess of the premium amounts as well as the administration costs incurred in operating the scheme.

5.41 The National Calamity Contingency Fund (NCCF) created by the central government deals with severe calamities and meets the excess over and above the balance available in the state's calamity relief fund. The Twelfth Finance Commission has recommended that implementation of NAIS should be a precondition for assistance from NCCF.

5.42 The AICIL introduced *Varsha Bima* as a pilot project in about 25 rain gauge stations across four states in 2004. The products include insurance based on (a) seasonal rainfall, (b) sowing failure, (c) rainfall distribution, (d) agro-economic optimum index and (e) catastrophe cover. A private insurer has launched rainfall insurance in Mahaboobnagar district of Andhra Pradesh. The insurance policy makes payments if the cumulative rainfall during the seasons is less than the historical average by more than predetermined threshold value. This is implemented on the basis of a rainfall index computed from rainfall during different periods, with weights based on the relative importance of rainfall during different periods.

5.43 Field visits and empirical studies reveal the poor performance of existing schemes. The insurance coverage of NAIS is very little and its spread is mostly limited to a few states;

insurance cover is not available to crops like fruits and vegetables; and there is inordinate delay in the settlement of claims. The indemnity level of 60 per cent is very low and needs to be increased (G. S. Bhalla, *Indian Agriculture since Independence*, National Book Trust, 2007).

5.44 To make the NAIS effective, the gram panchayat should be the unit of area, premium rates should be based on actuarial rates and subsidy may be given at half the premium rate. Marginal and small farmers may be given higher rates of subsidy. This requires a substantial increase in the number of crop cutting experiments, substantial financial resources and trained manpower. In the case of rainfall insurance, although the moral hazard problem may not exist, its efficacy is conditional on yield predicting power of the rainfall index, which is likely to depend on soil conditions, irrigation level and crops among others. It is possible that vegetation indices computed from the information derived from satellite data on vegetation stress may be a better predictor of yield than the rainfall index. Research on comparative evaluation of crop insurance, rainfall insurance and insurance-based vegetation stress indices is needed. The system of SHG based insurance to manage a part of the risk at the village level also requires scrutiny.

5.45 It is important to recognise that in the long term, risk preventive measures are likely to be more cost effective. These include better water supplies in water stress periods, reducing ground water stress by grounding well designed ground water recharge programmes through dug-well recharge, tank recharge and strengthening of water harvesting structures, instituting drought management system based on remote sensing methods and household income diversification. Such preventive measures would reduce risk and thereby the premium rates of crop and weather insurance.

5.46 It is also necessary to strengthen crop surveillance mechanism for forecasting drought well in advance. This would facilitate the design and preparation of action plan for mitigating the adverse effect of drought on the farming community. The National Remote Sensing Agency (NRSA) has been making drought assessments based on satellite data at the district level for 10 drought-prone districts and at mandal/taluka level for three states viz., Andhra Pradesh, Karnataka and Maharashtra. The month's forecast based on an analysis of satellite data during the crop season is being sent to the Ministry of Agriculture and the State Relief Commissioners. However, the information is not available to the general public. How far this information is being put to use in the preparation of action plans is not known. Suitable mechanisms should be put in place to disseminate the information among stakeholders. The crop assessment made at the end of the season should be utilised in crop insurance schemes.

5.47 The statistical validation of the predictions based on satellite data has not been undertaken in a rigorous manner. It is necessary to validate the prediction at district and sub-district level and perfect the underlying methodology. It is important to improve their predictability and to make available the predictions at district and mandal level to all stakeholders and the general public. If its crop yield predictive power is better than that based on rainfall data, it may be used in weather insurance.

VI. SUMMING UP

5.48 Current agrarian distress has two dimensions: an agricultural crisis and an agrarian crisis. The root cause of the agricultural crisis lies in the neglect of agriculture in designing development programmes and in the allocation of development and plan resources. There is a consensus that agriculture needs to grow at 4 per cent per annum and that the growth should be pro-poor. To sustain such a growth rate on a long-term basis, cropping intensity and yields must rise substantially without further damage to ecology and environment, as has been the case in the past. It would require additional investment in rural infrastructure, irrigation, agricultural research and extension and institution building. Appropriate management of common properties should form a crucial aspect of public policy. The role of farmers' associations and NGOs, are very important in this regard. Rainfed agriculture which is experiencing environmental degradation due to population pressure should be a priority for policy attention. The proposal of the government to set up a National Rainfed Areas Authority is welcome.

5.49 Marginal and small farmers are increasingly finding that their holdings are not viable. Promotion of allied activities, development of rural non-farm sector, easy provision for leasing out or leasing in land, organisation of small and marginal farmers through formal or informal collectives based on SHGs and cooperative models are some of the suggested initiatives. Needless to add that the resolution of the crisis of agrarian relations requires concerted attempts to focus on marginal and small farmers in all public policies. A key policy concern is the institutional arrangements for credit delivery. Special efforts should also be made to develop new technologies suitable to rainfed and small scale farming so as to enable them to diversify their production towards high value commercial and export crops.

5.50 The R&D in the farm sector needs to be placed in a strategic position. Heavy investments are required to harness the potential of cutting-edge developments in bio-technology. Along with the focus on R&D, there is a need to promote greater dissemination of both scientific knowledge and traditional wisdom. Successful experiments involving the application of recent developments in information and communication technologies and in institutions (farm school, ATMA) need to be scaled up.

5.51 Concerted efforts should be made to resurrect rural credit delivery agencies in terms of their geographical spread as well as organisational strength, in order to ensure healthy delivery of credit for agriculture and rural enterprises. Agency banking for credit through federations of farmers' SHGs, farmers' organisations, cooperatives, rural kiosks, should be strengthened and expanded. The ongoing commercialisation and diversification of agriculture as well as the penetration of IT into banking services would require the induction of a sizeable number of agricultural science graduates with necessary training in information technology. Parallel to the efforts of improving credit delivery, the foremost need is to improve the credit absorption capacity which critically depends on technology, extension and development of rural infrastructure.

5.52 The market driven liberalisation process in agriculture is bound to be strongly biased towards rich farmers, traders and prosperous regions. Farmers' organisations, collectives, Federations of farmers' SHGs have to be promoted and nurtured by the state. The SHG model of Andhra Pradesh (*Indira Kranti Pathakam*), and Punjab Farmers Commission are promising initiatives. Promotion of Farmer SHGs could be in stages. In the first stage, formation of SHGs should be around crop activities and marketing and the second stage should encourage higher level of economic activities relating to manufacturing and trade.

5.53 Weather related and price related risks affect the farming community. The price related risks will originate increasingly from price volatility in the international market and to moderate them would require the use of variable tariff instruments. These instruments need to be strengthened and domestic capability to perceive price risks emanating from global markets and to operate variable tariff instruments should be built. There may be a need to create a 'Price Risk Mitigation Fund' to compensate the farmers in extreme situations of price collapse in the case of plantation crops and crops not covered by the MSP.

5.54 It is important to recognise that weather induced risks affect the farmers in rainfed agriculture more, particularly in drought prone areas. Both preventive measures and yield insurance are needed to minimise the risks. In distressed areas, income stabilisation measures in the form of multiple sources of income and the adoption of yield stabilising technologies may be preferred.

5.55 Productivity led agricultural growth may not create sufficient jobs to absorb the surplus agricultural labour. Hence, growth of rural non-farm sector is essential for long-term reduction of poverty among agricultural labourers and marginal farmers to reduce pressure on land. Parallel with modernisation of agriculture, effort should be made to promote rural enterprises linked to growing economic activities and simultaneously integrate the agricultural labourers and marginal farmers with them. Recent institutional innovations such as SHGs, federations of SHGs and producer association cooperatives hold the promise. Agricultural labour and marginal farmers are hesitant to get into activities where the outcomes entirely depend on vagaries of market and where infrastructural and skill requirements are demanding. These problems need to be addressed. During the transition, safety nets should be strengthened to protect the agricultural labourers and marginal farmers from various types of uncertainties.

ANNEXURE 1

GOVERNMENT OF INDIA ORDER ON FORMATION OF THE EXPERT GROUP ON AGRICULTURAL INDEBTEDNESS

F.No. 3/81/2006-AC
Government of India
Ministry of Finance
Department of Economic Affairs
Banking Division

Jeevan Deep Building
Sansad Marg
New Delhi

Dated the 10th August, 2006

ORDER

The Government has decided to constitute an Expert Group to look into the problems of Agricultural indebtedness in its totality and suggest measures to provide relief to farmers across the country. The terms of reference and composition of the Group will be as follows:

(A) TERMS OF REFERENCE:

(i) To look into the problems of Agricultural indebtedness in its totality

(ii) To suggest measures to provide relief to farmers across the country.

(B) COMPOSITION:

(i) Prof. R. Radhakrishna, Director, Indira Gandhi Institute of Development Research, Mumbai as the Chairman of the Expert Group.

(ii) Dr. P. V. Shenoi, Former Secretary (Agriculture), Government of India, as Member.

(iii) Dr. Y. S. P. Thorat, Chairman, National Bank for Agriculture and Rural Development (NABARD), as Member.

(iv) Shri Kanta Kumar N., Former Chairman and Managing Director, Syndicate Bank, as Member.

(C) The Expert Group will be provided secretarial assistance by NABARD.

(D) The Expert Group will submit its report by 30.11.2006.

(Tarun Bajaj)
Director (AC&IC-II)
Tel: 23742100

ANNEXURE 2

PERMANENT INVITEES, DRAFTING COMMITTEE AND SUB-GROUPS CONSTITUTED BY THE EXPERT GROUP

Permanent Invitees

1. Dr. G. S. Bhalla, Emeritus Professor, Jawaharlal Nehru University, New Delhi.

2. Dr. V. M. Rao, **Honorary Visiting Fellow**, Institute for Social and Economic Change, Bangalore.

3. Dr. S. L. Shetty, Director, Economic and Political Weekly Research Foundation, Mumbai.

4. Dr. D. Narasimha Reddy, Former Dean, School of Social Sciences, University of Hyderabad, Hyderabad.

5. Dr. R. S. Deshpande, Institute for Social and Economic Change, Bangalore.

6. Dr. B. Yerram Raju, Director, Indian Institute of Economics, Hyderabad.

7. Dr. S. Galab, Centre for Economic and Social Studies, Hyderabad.

8. Dr. Srijit Mishra, Associate Professor, Indira Gandhi Institute of Development Research, Mumbai.

Drafting Committee

1. Dr. R. Radhakrishna, Director, Indira Gandhi Institute of Development Research, Mumbai.

2. Dr. G. S. Bhalla, Emeritus Professor, Jawaharlal Nehru University, New Delhi.

3. Dr. V. M. Rao, **Honorary Visiting Fellow**, Institute for Social and Economic Change, Bangalore.

4. Dr. S. L. Shetty, Director, Economic and Political Weekly Research Foundation, Mumbai.

5. Dr. D. Narasimha Reddy, Former Dean, School of Social Sciences, University of Hyderabad, Hyderabad.

6. Dr. Srijit Mishra, Associate Professor, Indira Gandhi Institute of Development Research, Mumbai, as Coordinator.

Sub-group on the Use of New Technology of Smart Cards for Small and Marginal Farmers

1. Dr. D. Narasimha Reddy, Former Dean, School of Social Sciences, University of Hyderabad, Hyderabad, as the Chairman of the sub-group.

2. Dr. B. Yerram Raju, Director, Indian Institute of Economics, Hyderabad, as a member of the sub-group.

3. Dr. Arvind Sharma, Director, Institute for Development and Research in Banking Technology, Hyderabad, as a Member of the sub-group, and

4. Dr. C.P. Nagi Reddy, Consultant, Society for Elimination of Rural Poverty, Hyderabad, as a Member of the sub-group.

Regional Sub-groups

Western/central region:

1. Dr. S. L. Shetty, Director, Economic and Political Weekly Research Foundation, Mumbai, as the Chairman of the sub-group.

2. Dr. Rajendra Kulkarni, National Bank for Agriculture and Rural Development, Mumbai, as Member.

3. Dr. Srijit Mishra, Indira Gandhi Institute of Development Research, Mumbai, as Member.

4. Dr. S. Chandrasekhar, Indira Gandhi Institute of Development Research, Mumbai, as Member.

5. Mr. N. Srinivasan, Chief General Manager, National Bank for Agriculture and Rural Development, Pune, as Convener of the sub-group.

Southern region:

1. Dr. V. M. Rao, **Honorary Visiting Fellow**, Institute for Social and Economic Change, Bangalore, as the Chairman of the sub-group.

2. Dr. D. Narasimha Reddy, Former Dean, School of Social Sciences, University of Hyderabad, Hyderabad, as Member.

3. Dr. K. Hanumantha Rao, National Institute of Rural Development, Hyderabad, as Member.

4. Dr. R. S. Deshpande, Institute for Social and Economic Change, Bangalore, as Member.

5. Dr. P. D. Jeromi, Reserve Bank of India, Kochi, as Member.

6. Mr. V. Ramkrishna Rao/Mr. S. R. Aluru, Chief General Manager, National Bank for Agriculture and Rural Development, Hyderabad, as Convener of the sub-group.

Eastern/North-eastern region:

1. Dr. S. L. Shetty, Director, Economic and Political Weekly Research Foundation, Mumbai, as the Chairman of the sub-group.

2. Mr. Ashok Bandopadhyay, West Bengal Infrastructure Development and Financial Corporation, Calcutta, as Member.

3. Dr. Alakh N. Sharma, Institute of Human Development, New Delhi, as Member.

4. Dr. Srijit Mishra, Indira Gandhi Institute of Development Research, Mumbai, as Member.

5. Mr. G. L. Tawte, Chief General Manager, National Bank for Agriculture and Rural Development, Kolkatta, as Convener of the sub-group.

Northern region:

1. Dr. G. S. Bhalla, Emeritus Professor, Jawaharlal Nehru University, New Delhi, as the Chairman of the sub-group.

2. Dr. A. K. Singh, Giri Institute of Development Studies, Lucknow, as Member.

3. Dr. H. R. Sharma, Chaudhary Sarwan Kumar Himachal Pradesh Agricultural University, as Member.

4. Dr. Surjit Singh, Institute of Development Studies, Jaipur, as Member.

5. Mr. S. R. Aluru, Chief General Manager, National Bank for Agriculture and Rural Development, Chandigarh, as Convener of the sub-group.

ANNEXURE 3

LIST OF SUB-GROUP REPORTS AND PAPERS SUBMITTED TO THE EXPERT GROUP

Sub-group Reports

1. Report of Regional Sub-group for Western Region on Agricultural Indebtedness (Chairman: Dr. S. L. Shetty).

2. Report of the Northern Region Sub-group on Indebtedness of Farmers (Chairman: Dr. G. S. Bhalla).

3. Report of the Southern Region Sub-group on Farmers' Indebtedness (Chairman: Dr. V. M. Rao).

4. Report of Regional Sub-group for Eastern Region on Agricultural Indebtedness (Chairman: Dr. S. L. Shetty).

5. Report of Sub-group on the Use of New Technology of Smart Cards for Small and Marginal Farmers (Chairman: Dr. D. Narasimha Reddy).

Commissioned Papers

1. "Farmers' Indebtedness and Agricultural Credit Situation in Andhra Pradesh" by D. Narasimha Reddy.

2. "Farmers' Indebtedness in Karnataka" by R. S. Deshpande.

3. "Agricultural Indebtedness and Farmers' Suicide in Kerala: An Enquiry" by P. D. Jeromi.

4. "Agricultural Indebtedness in Tamil Nadu" by K. Hanumantha Rao and K. Jayasree.

5. "Agrarian Economy of Himachal Pradesh: Crop Diversification, Borrowing and Indebtedness" by H. R. Sharma.

6. "Rural Credit in Rajasthan: The Farmers Woe or Foe" by Surjit Singh.

7. "Dimensions of Farmers' Distress in Uttar Pradesh" by Ajit Kumar Singh and Nomita P. Singh.

8. "Agrarian Crisis in Punjab" by Karam Singh.

9. "Agricultural Indebtedness and Farmers' Distress in West Bengal" by Ashok Bandopadhyay.

10. "Agriculture, Credit and Distress in Orissa" by Srijit Mishra.

Other papers

1. "Agrarian Distress and a Holistic Package of Redressal Strategy" by S. L. Shetty.

2. "All India Debt and Investment Survey – A Factual Review" by S. L. Shetty.

3. "Agriculture Credit, Indebtedness and Indian Farmers: Some Evidence from States" by Surjit Singh.

4. "Agrarian Scenario in Post-reform India: A Story of Distress, Despair and Death" by Srijit Mishra.

5. "Concept Note on Remote Sensing for Development of Rural India" by National Remote Sensing Agency (Sent by P. S. Roy).

6. "Note to the National Committee on Rural Indebtedness" by MCX (Sent by V. Shunmugam).

ANNEXURE 4

PRESENTATIONS MADE TO THE EXPERT GROUP

1. "Weather Insurance," Mr. Pranav Prashad, ICICI Lombard, December 8, 2006 at IGIDR, Mumbai.

2. "Moving Farmers From a Debt to Cash Economy," Dr. Yerram Raju, Director, Indian Institute of Economics, Hyderabad, December 28, 2006 at IGIDR, Mumbai.

3. "On Problems of Agricultural Indebtedness and Measures to Provide Relief to Farmers," Mr. S. Dave, Director, Agricultural and Processed food products Export Development Authority (APEDA), January 31, 2007 at IGIDR, Mumbai.

4. "Agriculture Insurance in India," Dr. Rajas K. Parchure, National Insurance Academy, January 31, 2007 at IGIDR, Mumbai.

5. "Usage of New Technology to Facilitate Farmers," Dr. Arvind Sharma, Director, Institute for Development and Research in Banking, January 31, 2007 at IGIDR, Mumbai.

6. "Rural Indebtedness: Causes and Remedies," Mr. Joseph Massey, Multi Commodity Exchange, January 31, 2007 at IGIDR, Mumbai.

7. "What we Have Learned, and What Next?" Dr. David Dror's, Health Economist, January 31, 2007 at IGIDR, Mumbai.

8. "Agricultural Development in North-East India: Challenges and Emerging Opportunities," Dr. B. C. Barah, National Centre for Agricultural Economics and Policy (NCAP), March 16, 2007 at IGIDR, Mumbai.

9. "Innovation in Rural Institution: A Driver for Rural Prosperity (A Case of FMC in Assam)," Dr. B. C. Barah, NCAP, March 16, 2007 at IGIDR, Mumbai.

10. "Agricultural Drought Assessment and Monitoring Using Space and Ancillary Inputs," Dr. P. S. Roy, National Remote Sensing Agency (NRSA), March 16, 2007 at IGIDR, Mumbai.

11. "Land Use and Land Cover Mapping Using Remote Sensing," Dr. M. S. R. Murty, NRSA, March 16, 2007 at IGIDR, Mumbai.

12. “Identification and Prioritization of Distressed Districts,” Dr. P. S. Roy, NRSA, March 16, 2007 at IGIDR, Mumbai.

13. “Agrarian Scenario,” Mr. P. Sainath, Journalist, April 14, 2007 at IGIDR, Mumbai.

14. “Farmers’ Suicides in Marathwada Region,” Dr. R. P. Kurulkar, Swami Ramanand Teerth Marathwada Research Institute, Aurangabad, April 14, 2007 at IGIDR, Mumbai.

15. “Discussion of Farmers Indebtedness: With Special Reference to Vidarbha,” Dr. Anjali Kulkarni, Former Professor and Head, Department of Economics, Nagpur University. In addition, she also discussed a report ‘Identifying Reasons for Farmer’s Suicides in Nagpur District (With Special Reference to Narkhed, Katol and Kalmeshwar) prepared by Mrunalini Fadnavis et al, Mahila Mahavidyalaya, Nagpur; April 14, 2007 at IGIDR, Mumbai.

16. “Can Indira Kranthi Patham Uplift Farmers?” Mr. T. Vijay Kumar, Chief Executive Officer, Society for Elimination of Rural Poverty (SERP), Hyderabad, April 24, 2007 at NABARD Regional Office, Hyderabad.

17. “Surveillance Capabilities of Remotely Sensed Satellite Data,” Dr. M. V. R. Sesha Sai, April 24, 2007, at NABARD Regional Office, Hyderabad.

18. “A Representation for Tobacco Cultivators,” Dr. Y. Shivaji, Ex Member of Parliament, April 24, 2007. at NABARD Regional Office, Hyderabad.

19. Dr. K. R. Kranthi, Central Institute of Cotton Research, “Agrarian Crisis in Cotton Farming Systems in India,,” May 3, 2007 at IGIDR, Mumbai.

20. “Farmers’ Suicides in Maharashtra: An Overview,” Dr. Sudhir Kumar Goel, Divisional Commissioner, Amravati, June 11, 2007 at IGIDR, Mumbai.

ANNEXURE 5

MEETINGS OF THE EXPERT GROUP AND DRAFTING COMMITTEE

Expert Group Meetings

First Meeting, IGIDR, Mumbai, September 25, 2006

Second Meeting, IGIDR, Mumbai, November 10, 2006

Third Meeting, IGIDR, Mumbai, December 8, 2006.

Fourth Meeting, IGIDR, Mumbai, December 29, 2006.

Fifth Meeting, IGIDR, Mumbai, January 31, 2007.

Sixth Meeting, IGIDR, Mumbai, March 16, 2007.

Seventh Meeting, IGIDR, Mumbai, June 30, 2007

Eighth Meeting, IGIDR, Mumbai, July 6, 2007

Drafting Committee Meetings

Preparatory Meeting, IGIDR, Mumbai, April 10, 2007.

First Meeting, IGIDR, Mumbai, April 13-14, 2007.

Second Meeting, IGIDR, Mumbai, May 2-3, 2007.

Third Meeting, IGIDR, Mumbai, June 11-16, 2007 (at Panchgani during June 14-16, 2007).

Fourth Meeting, IGIDR, Mumbai, June 26-29, 2007.

Fifth Meeting, IGIDR, Mumbai, July 1-5, 2007 (at Lonavala during July 2-4, 2007).

Sixth Meeting, IGIDR, Mumbai, July 7-10, 2007.

Seventh Meeting, IGIDR, Mumbai, July 13-14, 2007.

Sub-group of the Drafting Committee met during July 16-17 and July 22-23, 2007.

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