

**Report of the
Commission on
Farmers' Welfare,
Government
of
Andhra Pradesh**

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Executive Summary

Agriculture in Andhra Pradesh is in an advanced stage of crisis. While the causes of this crisis are complex and manifold, they are dominantly related to public policy. The economic strategy of the past decade at both central government and state government levels

- has systematically reduced the protection afforded to farmers and exposed them to market volatility and private profiteering without adequate regulation,
- has reduced critical forms of public expenditure,
- has destroyed important public institutions, and
- did not adequately generate other non-agricultural economic activities.

While this is a generalised rural crisis, the burden has fallen disproportionately on small and marginal farmers, tenant farmers and rural labourers, particularly those in dryer tracts. The most extreme manifestation of the crisis is in the suicides by farmers.

The Commission on Farmers' Welfare has deliberated on this problem and held discussions with a large number of farmers during its field visits and has also consulted experts in various relevant fields. While the issues are complex and require detailed investigation of each area, they generally reflect not only structural conditions but especially the collapse of public institutions that affects farmers and farming. The Commission feels that solutions to the current crisis require interventions in six important areas, which would do the following:

- correct spatial inequities in access to irrigation and work towards sustainable water management
- bring all cultivators into the ambit of institutional credit, including tenant farmers
- shift policies to focus on dryland farming through technology, extension, price and other incentives
- encourage cheaper and more sustainable input use, with greater public provision and regulation of private input supply and strong research and extension support
- protect farmers from high volatility in output prices
- emphasise rural economic diversification, to more value-added activities and non-agricultural activities.

These goals form the basis of the recommendations made by the Commission. All of these issues have to be tackled at different levels and requires intervention by various institutions over the short as well as medium term. The new role

envisaged for the state government will require a substantial increase in public expenditure. Therefore we expect that public expenditure on agriculture and allied activities should reach 5 per cent of GSDP in the next budget. It is clear that the effectiveness of these recommendations will depend essentially upon the political will to translate them into government policy and on the ground-level implementation.

The main text of the Report provides a detailed account of the identified problems and the required interventions. The areas covered are land relations, rural credit, irrigation and power, agricultural research and extension, input provision, crop prices and markets, the special problems of drought-prone areas, non-agricultural employment, issues on health, nutrition and education of farmers, and the issues involved in effective implementation of the proposed policies.

This Executive Summary brings together the essential steps that need to be taken to deal with the crisis on an immediate priority basis.

Land

Land relations in Andhra Pradesh are extremely complicated and this complexity has contributed significantly to the problems facing actual cultivators in the state. Unregistered cultivators, tenants, and tribal cultivators all face difficulties in accessing institutional credit and other facilities available to farmers with land titles.

- The immediate priority is to record and register actual cultivators including tenants and women cultivators, and provide passbooks to them, to ensure that they gain access to institutional credit and other inputs. There should be a systematic official drive over three months. In such registration, the onus should not be on the tenant to prove his/her tenancy, but on the landlord to disprove it.
- The land rights of tribals in the agency areas must be protected.
- There is considerable scope for further land redistribution, particularly when waste and cultivable lands are taken into account. Complementary inputs for cultivation (initial land development, input minikits, credit, etc.) should be provided to all assignees, and the future assignments of land should be in the name of women.

Credit

The heavy burden of debt is perhaps the most acute proximate cause of agrarian distress. The decline of the share of institutional credit and the lack of access to

timely and adequate formal credit in the state have been a big blow to farmers, particularly small and marginal farmers. The basic task of the state is to ensure that the formal banking system in rural areas meets all the credit requirements of farmers, including tenant farmers. Although banking policy and trends are affected by national decisions, the government of Andhra Pradesh should take a lead role in reviving social banking. Through state and lower level institutional mechanisms, immediate steps can be taken to ensure that the right amount of credit reaches cultivators at the right time at minimal cost.

On debt relief:

- The Helpline already set up by the state government should be used as a facilitating mechanism for helping farmers in distress to access bank loans.
- The state government should initiate a Distress Fund, with support from RBI and NABARD, that will provide support to banks in chronically drought prone areas, and permit some debt relief to cultivators.

The state government should approach the RBI, the NABARD and the public insurance companies with the following requests:

- Interest should not be charged for the period of current rescheduling. Whenever an area is declared as drought-affected, interest should be waived, without changing the other terms of rescheduling.
- The accumulated interest on a loan should not exceed the principal amount of the loan. All the excess of accumulated interest over principal should be automatically written off by the banks.
- The interest rate on all crop loans should be lowered to 6 per cent annual rate.
- It is essential to expand the coverage of crop insurance in a comprehensive manner. The 50 per cent subsidy on premium for such insurance given to small and marginal farmers should be continued.
- A comprehensive insurance plan for rural dwellers should be provided.

Water

Inadequate and declining water supply is one of the most significant problems facing most farmers in Andhra Pradesh, not only a constant concern but also a major source of increased expenditure. The uneven distribution and unequal access to canal irrigation and the decline of other surface water sources have led to greater reliance on the exploitation of groundwater, which entails substantial costs on individual cultivators.

- A massive programme for restoration of tanks and other minor water bodies must be taken up, giving priority to the drought-affected regions.
- The state government should evolve a water policy with an emphasis on equity in the spatial distribution of surface water resources in the State and on the conjunctive use of surface and ground water.
- Necessary steps have to be taken to register and regulate the use of ground water resources, with the aim of public control over ground water and distribution based on progressive water rates in the medium term.

Agricultural research and extension

The lack of agricultural research in priority areas such as dryland farming and the collapse of public agricultural extension services have been among the more important contributory factors to the generalised agrarian crisis.

- Public sector agricultural research has to be strengthened and reoriented particularly towards dry land crops. This has to include establishment of more research stations in the dry land areas.
- The public agricultural extension system, which is in a state of near-collapse, has led to a situation where the cultivator is totally dependent on the local input supplier cum creditor. The public extension network has to be revived and strengthened. This will involve large-scale recruitment and training of adequate qualified staff.

Input provision

The increasing costs of purchased inputs, as well as the problems of quality in terms of sub-standard and spurious seeds and pesticides have also figured as the dominant proximate factors for the crop failures, given the drought conditions. This has also been recognised as a crucial risk factor linked to the distress of farmers.

- The state has to play a central role in ensuring the provision of high quality inputs at affordable prices at the right time to all cultivators both by direct intervention as well as by appropriate regulation. Measures to be taken include the strengthening of the Andhra Pradesh Seed Corporation along with all its regional production units.

- The enactment and implementation of the State Seeds Bill 2004 should be expedited.
- An aggressive strategy for a paradigm shift in fertilisers policy is required. The state government should consciously promote and facilitate the production and usage of bio-fertilisers, vermi composting, green manuring and other eco-friendly fertility enhancing activities.
- In view of the serious negative impacts on account of chemical pesticides and insecticides, the government should change its policy towards promoting natural pest management. This should be done in mission mode.
- In the interim, the immediate requirement is to ensure vigilance with respect to quality and prices of chemical inputs. Steps should be taken to create the required infrastructure and ensure strict enforcement as quickly as possible.

Markets and Prices

Low and declining prices for major commodities produced in the State are responsible for the collapse of rural incomes. The volatility of crop prices has been a major source of income instability and distress for farmers. The problem has been aggravated because the public procurement agencies have not been procuring sufficiently to ensure that Minimum Support Prices are maintained. The marketing of agricultural produce has become one of the critical areas where the farmers are exploited.

- Timely and adequate procurement operations by central and state government agencies are needed to ensure a remunerative price to cultivators and to arrest distress sale.
- A Market Price Stabilisation Fund should be created.
- Marketing infrastructure is inadequate and there are numerous procedural problems in the marketing yards. The Marketing Department must take measures to provide adequate and non-exploitative arrangements in the market.
- The state government should demand from the central government the introduction of a system of variable tariffs and if necessary Quantitative Restrictions on agricultural commodities to ensure stable import prices that protect domestic cultivators and their livelihood.

Employment

The present crisis is also a crisis of rural employment. Agricultural employment has fallen, non-farming employment has virtually stagnated and there have been hardly any non-agricultural livelihood opportunities that would allow members of farming households some kind of buffer against losses in cultivation.

- There is urgent need to provide rural workers with at least 100 days of employment at minimum wages, and to this effect the state government must ensure that an Employment Guarantee Act is enacted and implemented at the earliest, with coverage extended to the rural areas of all districts in the state within a specified time frame.
- Opportunities for rural non-farm employment must be increased. This requires policies to encourage the post-harvest handling of produce and agro-processing, as well as renewed emphasis on strengthening co-operatives for dairy, weaving and other non-agricultural activities.

Public Distribution System

- The public distribution system must be strengthened so as to make available basic minimum quantities of cereals at affordable prices to all vulnerable households.
- All poor households should be supplied with BPL cards.
- The state government should request the Government of India to provide coverage under the Antyodaya and Annapurna schemes to all BPL card holders in drought-prone areas.
- At present the BPL allocation of rice per person is too low and the total entitlement is fixed at 20 kg per family. The per person entitlement needs to be doubled to meet the basic food requirements of the family.
- There must be a major drive to provide nutritious cereals such as jowar, bajra, and ragi at especially subsidised and very low prices to all card holders through the Public Distribution System. The prices must be sufficiently low to attract consumers; in case it is not, it could be further lowered through a subsidy from the state government.

Health and education

The decline in the quality of public provision has pushed even poor farmers to private health care and education. This has added to farmers' problems, as high medical expenses have led many cultivators into deep debt. The poor quality of public education at all levels has also encouraged greater use of private services among farmers' families.

- Public expenditure on health has to be raised and used to provide good quality low cost care to rural households.
- More budgetary resources have to be allocated to education, particularly to primary and secondary education in rural areas.

Implementation

The new role envisaged for the state government will require a substantial increase in public expenditure. The effectiveness of these recommendations will therefore depend essentially upon the political will to translate them into government policy, and on the quality, accountability and responsiveness of public delivery systems. In order to achieve a substantial degree of accountability and ensure a much greater degree of public participation and voice in the implementation of these policies, the panchayati raj institutions in the state will be substantially revived, given greater powers and made to function in a democratic and participatory manner.

Agriculture Technology Mission

The basic goal of the this Mission must be to create and revive public institutions in the rural areas and implement policies which will immediately reduce agrarian distress, and over time provide protection to farmers, encourage the most productive and sustainable forms of land and water use, provide stable livelihood and employment to the rural population and improve the incomes of the rural population over time.

- The ATM must act as the umbrella organisation for the planning, direction and implementation of all of the policies relevant to agriculture and allied sectors and the welfare of farmers and farm workers. It should be a permanent body co-ordinating the activities of various departments.
- The focus should be on empowering the farming community, with the active involvement of locally elected bodies such as panchayats and participatory institutions such as gram sabhas.
- The ATM must have a holistic approach to the problems of agriculture in the state, addressing the particular problems in each area within a broader context and in such a manner as to encourage co-operation and synergy between the activities of various state/central government departments/agencies and local level institutions.
- It should formulate policies and take action on meeting the challenges of the WTO regime, organising policy research on critical issues in agriculture and recommending policies to meet the changing needs in this

sector and suggesting the measures required for educating the farmers through farmers' organisations.

Acknowledgements

In the course of its work, the Commission on Farmers' Welfare has interacted with a large number of farmers, bankers, officials, academics and other experts, as well as other concerned citizens in villages and district headquarters of nine different districts covering all the various agro-climatic zones of the state, as well as in Hyderabad. A large number of people spared the time to interact with the Commission and/or to provide written submissions. (The lists of field visits and written submissions to the Commission are provided in the Appendix.) We are grateful to all of them for their valuable insights and suggestions, which proved to be of immense relevance when analysing the problems of the farming community in the state and considering possible solutions to these problems. These inputs have contributed greatly to the Report, which is really based on the experiences and analysis provided by so many people.

The Commission would like to place on record its gratitude and appreciation of the tremendous help provided by the Special Invitees to the Commission, especially Shri K. R. Venugopal, Prof. C. H. Hanumantha Rao, Shri Bhavani Prasad and Shri P. Sainath. This Report would not have been possible without their committed involvement in the entire process and very substantial contributions, both written and through discussions. The Adviser to the Commission, Prof. Utsa Patnaik, also played a very valuable role in the discussions and provided inputs for the Report. In addition, the Commission has benefited from inputs, advice and comments from particular individuals such as Dr. S. K. Rao, Principal, Administrative Staff College, Hyderabad; Shri Jagan Mohan, Director of the Regional Rural Bank, Warangal; Shri P. S. M. Rao; Shri Narasimha Reddy of Eenadu; Dr. Gopal of Centre for Environmental Concerns.

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Finally, the Commission is grateful to the Government of Andhra Pradesh, not only for giving us the opportunity to study this pressing issue, but also for providing us all the facilities and freedom with which to pursue our work and come to our conclusions.

Chapter 1: Background

I. Dimensions of the agrarian crisis

Agriculture in Andhra Pradesh is in an advanced state of crisis. While discussing this crisis, it is important to be aware of the substantial regional variations both in absolute levels of production and income and in the way that this crisis has played out in recent years. Drought-affected areas in Rayalaseema and Telengana bear the brunt of the burden, even though even farmers in irrigated areas have been facing problems. In addition, the burden has fallen disproportionately on small and marginal farmers, tenant farmers and rural labourers.

The most extreme manifestation of this crisis is in the suicides by farmers, who are typically driven to this desperate act by the inability to repay debt incurred in the process of cultivation, which has become a volatile and economically less viable activity. But this is only the tip of the iceberg of generalised rural distress which had become prevalent across the state, and has also been expressed in severe cases in kidney sales and hunger deaths in certain areas. The problems of farming are evident, ranging from frequent droughts and soil degeneration, to lack of institutional credit and insurance leading to excessive reliance on private moneylenders, problems in accessing reliable and reasonably priced inputs to problems of marketing and high volatility of crop prices. But the crisis is also reflected in other features of the rural economy: the decline in agricultural employment and stagnation of other employment, leading to reduced food consumption and forced migration of workers; the evident decline in per capita calorie consumption even among the poor.

Production indicators give the first indication of the problem. The growth rate of aggregate agricultural output declined from 3.4 per cent per annum in the

1980s to 2.3 per cent per annum in the 1990s. Yield growth also declined. For example, the growth rate of rice yield declined steeply from an annual rate of 3.1 per cent in the 1980s to 1.3 per cent in the 1990s; for cotton the corresponding figures were 3.4 per cent and 1.4 per cent.¹ National-level studies estimate that crop yields in Andhra Pradesh declined by 1.8 per cent per year over the 1990s. In addition, the volatility of yields has also been higher in the later period.

Meanwhile, prices of crops produced by farmers in the state have become much more volatile as they have been more influenced by world market trends. From 1996, the falling international prices of many crops had their ripple effects in India even when the actual volume of imports did not increase, merely because of the possibility of such imports. There have also been much sharper fluctuations in such prices, which have changed sharply from year to year for some crops like cotton and groundnut. This has created a pattern of shifting, uncertain and unreliable relative price incentives for farmers.

Despite all this, it is certainly not the case that agriculture in the state has been stagnant over this period. On the contrary, there have been very substantial changes most particularly in cropping patterns, as farmers across the state have moved from traditional rainfed cereals to non-food cash crops. Table 1 gives an idea of the extent of the shift over four decades, but it should be noted that a substantial part of this change occurred in the more recent past. There have been large reductions in the acreage under jowar and other millets such as ragi, and increases in the area under groundnut, other oilseeds and cotton. This shift towards more emphasis on non-food cash crop production reflected several forces. There was the obvious need for farmers' households to access more cash income in order to meet a range of cash expenses for immediate consumption and even for cultivation. In addition, there was a pattern of increasing expenditure on health. Cash crop production typically entails more monetised inputs, such as seeds fertilisers and pesticides, and these were

¹ Estimates courtesy CESS, Hyderabad.

typically financed by incurring debt, most often with the input dealers themselves who also doubled as traders. Once such a money debt was incurred, cash crop production was further necessitated by the need to repay interest and principal, and it became almost impossible for farmers to move back to the old subsistence crops that did not command a market.

Table 1.1: Changes in Cropping Pattern
(per cent of cropped area)

Crops	North Coastal Andhra		South Coastal Andhra		Rayalaseema		South Telengana		North Telengana		Total State	
	1958	1998	1958	1998	1958	1998	1958	1998	1958	1998	1958	1998
Rice	38.9	33.0	40.5	48.6	9.1	11.1	14.8	23.9	20.8	29.5	23.1	30.5
Jowar	2.1	0.3	16.6	0.3	18.3	5.3	26.7	17.1	31.0	9.4	20.8	6.1
Other Millets	15.7	7.4	5.9	1.7	10.5	1.6	11.3	6.9	7.3	9.7	9.1	4.7
Pulses	11.0	13.4	9.1	14.8	6.5	5.6	11.8	14.6	15.1	12.0	10.7	11.9
Food Grains	66.9	54.4	72.1	65.4	44.4	23.6	64.4	62.5	74.2	60.6	73.1	53.2
Groundnut	7.1	9.5	3.6	1.8	20.3	48.3	10.5	9.5	8.0	5.3	10.5	15.3
Oilseeds	11.3	12.9	6.3	3.7	21.4	56.3	19.5	20.3	15.1	10.8	15.3	20.8
Cotton	0.2	0.7	0.8	7.0	7.9	5.2	0.4	8.2	4.0	17.6	3.1	8.2
Others	21.6	32.0	20.8	23.9	26.3	14.9	15.5	9.0	6.7	11.0	11.6	17.8

Source: S. Subramanyam (2002)

The technological problems of decelerating crop output and volatile and falling yields have been dramatically accentuated by the changes in relative prices, such that, especially from the mid-1990s, output prices have stagnated or fallen while the costs of inputs have gone up very sharply. This has created genuine questions regarding the viability of farming in the current context.

Table 1.2: Net income per hectare at 1971-72 prices in Andhra Pradesh

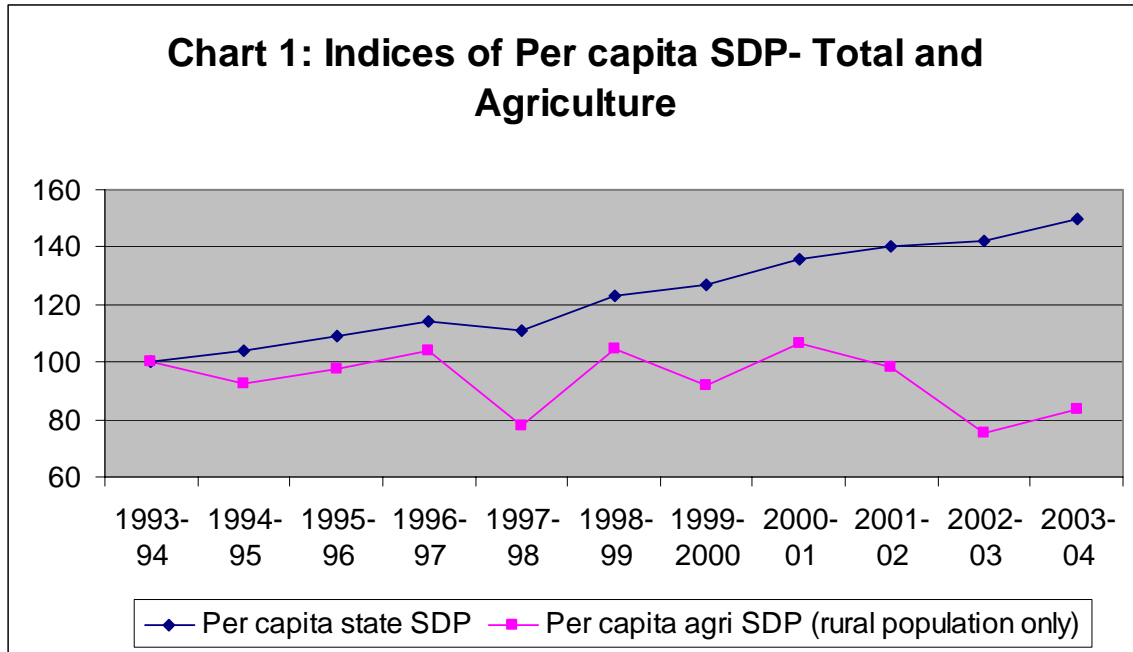
	Paddy	Groundnut	Sugarcane	Cotton
Early 70s	314	-		0
Mid 70s	81	-116		186
Late 70s	-36	-65	1056	638
Early 80s	150	-15	809	-
Mid 80s	140	-88	2194	-
Late 80s	215	-52	816	104
Early 90s	221	-9	1119	-
Mid 90s	227	-117	1563	474
Late 90s	167	-123	1139	-

Source: CACP, quoted by Directorate of Economics and Statistics,
Government of Andhra Pradesh

Table 2 gives an idea of the stagnation of returns and actual decline in returns from cultivation of several crops. In some cases, the subsequent patterns have indicated both more losses from cultivation and greater volatility. The Commission on Agricultural Costs and Prices, Government of India (CACP) reports show that the returns from cotton cultivation per hectare in current prices were negative (a loss of Rs. 1641) in 1996-97 and only Rs. 72 per hectare in 1997-98, after taking into account the total costs. Since it is widely believed that the CACP underestimates many elements of cost in Andhra Pradesh, it may be that the actual situation is even worse than this already dismal picture.

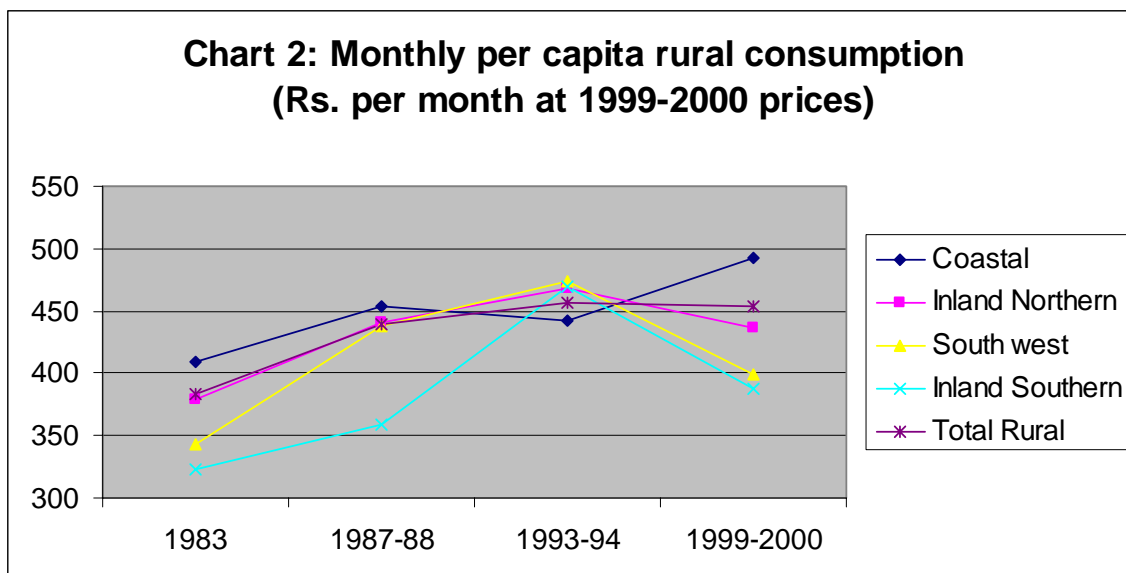
When all this is combined with the effect of falling prices, it is not surprising to note that the share of GDP in agriculture in A.P. declined much faster than all India, and that per capita GDP from agriculture in constant terms barely increased after the mid-1990s and actually fell in recent years. Chart 1 indicates the behaviour of the index numbers for per capita income (that is net domestic product in constant 1993-94 prices) for all sectors and for agriculture alone. While aggregate per capita income increased moderately from 1993,

agricultural income per capita of rural population shows no such increase, and has actually declined. In fact, between the triennium 1993-94 to 1995-96 and the triennium 2001-02 to 2003-04, per capita agricultural product actually declined by around 12 per cent.



Source: Calculated from NAS and Census of India

This has also been reflected in indicators of per capita consumption, which probably provide a more accurate picture of the real economic conditions in the countryside. Chart 2 indicates the trend in the four regions of rural Andhra Pradesh according to the NSS consumer expenditure surveys.



Source: NSS Consumption Expenditure Surveys

Note: The NSS regions correspond to the following districts:
 Coastal includes North Coastal Andhra and South Coastal Andhra;
 Inland Northern refers to North Telengana;
 Inland Southern refers to South Telengana and Kurnool and Cuddapah in Rayalaseema);
 Southwest refers to Anantapur and Chittoor in Rayalaseema.

Aggregate per capita consumption for the rural areas of the whole state taken together increased marginally between 1983 and 1999-2000. But it is notable that there appears to have been hardly any increase since 1993-94, despite the moderate increase in per capita SDP indicated above. What is even more significant is that per capita consumption *fell* after 1993-94 in all the regions of rural Andhra Pradesh barring the coastal Andhra region. This fall was particularly marked for Rayalaseema (comprising the Southwest and Inland Southern regions). So, in most of the rural areas of the state, average consumption expenditure actually declined in real terms in the period 1993-94 to 1999-2000. Even the rise in per capita income in Coastal Andhra may have an element of inter-regional inequality because of the differences between the backward North Coastal region and the advanced South Coastal region.

This is quite consistent with the picture of growing difficulty of cultivation. But in addition to the agricultural patterns, the general stagnation of the rural economy and the absence of non-agricultural income generation possibilities

contributed further to the deterioration of living standards in the countryside. Part of the problem in employment generation stemmed from agriculture itself – not only was this sector depressed, but the increasing mechanisation implied falling labour use per hectare of cultivation. It is not surprising that in this context, agricultural employment fell and total rural employment stagnated.

At first sight this appears to be incompatible with the general perception that rural poverty has declined and the official estimate that the actual incidence of poverty in the state in 1999-2000 was only 11 per cent. But most analysts agree that this is a gross underestimate.² It is evident that the official poverty line of Rs. 262 per capita per month (in 1999-2000) implying Rs. 8.60 per day, is far too low to meet the actual requirements of food and other necessities.³ In addition, per capita calorie consumption also appears to have declined. A further cause for concern is the composition of cereal consumption increasingly away from the more nutrient millets to rice.

II. Causes of the agrarian crisis

The causes of this widespread crisis are complex and manifold, reflecting technological and weather-related factors, changes in relative prices and reduced levels of public intervention in terms of both investment and regulation. It is true that climatic shifts have played a negative role, especially in terms of generally lower rainfall, more uneven and untimely rain and growing regional variation in the rainfall. However, the main causes are dominantly related to public policy, and in particular to an economic strategy at both central government and state government levels which systematically reduced the protection afforded to farmers and exposed them to market volatility and private profiteering without adequate regulation, reduced critical forms of public expenditure, destroyed important public institutions and did not adequately generate other non-

² Deaton and Dreze (2003) Abhijit Sen and Himanshu (2004).

³ Utsa Patnaik (2004).

agricultural economic activities.⁴ While this was true across most of rural India over the past decade, it was especially true in Andhra Pradesh.

The state of Andhra Pradesh had become almost a laboratory for every neo-liberal economic experiment, with a massive shift towards relying on incentives for private agents as opposed to state intervention and regulation of private activity, in virtually all areas. Ironically, this decline in the government's role took place at the same time that the state government was incurring massive external debts from bilateral and multilateral external agencies. Many of the problems in the economy of the state – in agriculture as well as in non-agriculture – can be traced to this reduction of the government's positive role and the collapse of a wide range of public institutions affecting the conditions facing producers.

The increase in the number of farmers' suicides is the most dramatic sign of extreme despair and hopelessness, and comes close to starvation deaths as the most blatant indicator of the extent of rural devastation. The proximate cause of such suicides is usually the inability to cope with the burden of debt, which farmers find themselves unable to repay. In most (but not all) cases, the debt was contracted to private moneylenders, as the massive decline in agricultural credit from banks and co-operatives has reduced access especially of small cultivators to institutional credit. Further, large numbers of farmers – tenant, tribal farmers, women farmers and those without legal titles – have no access at all to formal credit and are forced to rely entirely on private lenders.

But the debt burden itself is only a symptom of the wider malaise. Cultivation itself has become less and less viable over time, as input prices in Andhra Pradesh especially have sky-rocketed, and farmers have gone in for cash crops involving more monetised inputs, risky yields and volatile prices. The opening up of agricultural trade has forced farmers to cope with the vagaries and

⁴ These issues are explored in more detail in the next chapter.

volatility of international market prices, even while the most minimal protection earlier afforded to cultivators has been removed.

Public agricultural extension services have all but disappeared, leaving farmers to the mercy of private dealers of seed and other inputs such as fertiliser and pesticides who function without adequate regulation, creating problems of wrong crop choices, excessively high input prices, spurious inputs and extortion. Public crop marketing services have also declined in spread and scope, and marketing margins imposed by private traders have therefore increased. All this happened over a period when farmers were actively encouraged to shift to cash crops, away from subsistence crops which involved less monetised inputs and could ensure at least consumption survival of peasant households.

The crisis in water and irrigation sources can also be traced to these cultivation patterns. Over-use of groundwater – once again resulting from the absence of public regulation or even advice, as well as the shift to more water-using crops – has caused water tables to fall across the state. Indiscriminate drilling of borewells may have indirectly led to many farmers' suicides in the state. The prolonged period of poor and untimely rains in much of the state has exacerbated these problems and created crisis conditions. Declining public investment, inadequate maintenance and the regionally uneven pattern of spending, have all made surface water access also problematic. In consequence, there are now real problems with respect to even the current economic viability of farming as a productive activity in most parts of rural Andhra Pradesh, not to mention its sustainability over time.

Other factors have added to debt burdens that become unbearable over time. Production loans dominate in current rural indebtedness. But among the non-productive loans incurred by rural households, those taken for paying for medical expenses are the most significant. The deterioration of public health services and the promotion of private medical care have dramatically increased

the financial costs of sheer physical survival and well-being, even among the relatively poor.

The crisis in agriculture in turn has affected and been affected by the stagnation of other employment opportunities in the rural economy. The closure of many small-scale industries worsened the problems of people living in surrounding villages, as they lost possibilities of employment and chances for self-employed service activities catering to those industries and their workers. Handloom and other weavers have been adversely affected by the removal of public subsidies and the decline of co-operatives. While dairy and livestock rearing tend to be more stable sources of income, they have also become less profitable (and even turned loss-making in some areas) because of the increasing costs of feed and unequal market relations into which small producers have been pushed. There has been some growth of services employment, but nowhere near enough to fill the gap. As a result, the share of rural non-farm employment in the state actually declined from 23 per cent in 1983 to 21 per cent in 1999-00, while for the country as a whole it increased from 18 per cent to 24 per cent over the same period.

This entire process is sometimes presented as a situation in which rural people have been “left out” of the process of globalisation, or have been “marginalised” or “excluded”. But the problem is not at all that cultivators and workers in this state have been “left out”. Rather, they have been incorporated and integrated into market systems that are intrinsically loaded against them, in which their lack of assets, poor protection through regulation and low bargaining power have operated to make their material conditions more adverse.

These processes have operated differently across regions, and those areas that were historically backward and less developed have ironically been more adversely affected by the processes described above. It is clearly the case that the degree of distress experienced by cultivators in Andhra Pradesh varies

inversely with the extent of assured irrigation. Therefore, while the crisis is a serious one across the state, there is no doubt that it is more acute in drought-prone regions, where the social and economic processes have interacted with weather conditions to create circumstance of extreme difficulty.

Chapter 2: The role of government policies

The agrarian crisis in Andhra Pradesh can be linked to a combination of macro liberalisation and globalisation policies at the central government level, specific policies of the state government and failures at the level of local implementation.

I. Macro Policies

The policies of the central government since the beginning of the 1990s have had direct and indirect effects on farmers' welfare. The economic reforms did not include any specific package specifically designed for agriculture. Rather, the presumption was that freeing agricultural markets and liberalising external trade in agricultural commodities would provide price incentives leading to enhanced investment and output in that sector, while broader trade liberalisation would shift inter-sectoral terms of trade in favour of agriculture. However, there were changes in patterns of government spending and financial measures which also necessarily affected the conditions of cultivation. In particular, fiscal policies of reducing expenditure on certain areas especially rural spending, trade liberalisation, financial liberalisation and privatisation of important areas of economic activity and service provision had adverse impact on cultivation and rural living conditions.

The neo-liberal economic reform strategy involved the following measures which specifically affected the rural areas:

- Actual declines in Central government revenue expenditure on rural development, cuts in particular subsidies such as on fertiliser in real terms, and an overall decline in per capita government expenditure on rural areas.
- Reduction in public investment in agriculture, including in research and extension.

- Very substantial declines in public infrastructure and energy investments that affect the rural areas, including in irrigation.
- Reduced spread and rising prices of the public distribution system for food. This had a substantial adverse effect on rural household food consumption in most parts of the country.
- Financial liberalisation measures, including redefining priority sector lending by banks, which effectively reduced the availability of rural credit, and thus made farm investment more expensive and more difficult, especially for smaller farmers.
- Liberalisation and removal of restrictions on internal trade in agricultural commodities, across states within India.
- Liberalisation of external trade, first through lifting restrictions on exports of agricultural goods, and then by shifting from quantitative restrictions to tariffs on imports of agricultural commodities. A range of primary imports was decanalised and thrown open to private agents. Import tariffs were very substantially lowered over the decade. Exports of important cultivated items, including wheat and rice, were freed from controls and subsequent measures were directed towards promoting the exports of raw and processed agricultural goods.

In terms of fiscal policies, the reduced spending of central and state governments was the most significant feature. Due to tax reforms, the tax/GDP ratio declined at central level. Central transfers to state governments also declined. State governments were forced to borrow in the market and other (often international) sources at high interest rates. As a result, the levels of debt and debt servicing increased in most of the states. In recent years, most state governments were in fiscal crisis and did not have funds for capital expenditures. This has been especially important since state governments are responsible for areas critical for farmers such as rural infrastructure, power, water supply, health

and education. Meanwhile, at the central government level, capital expenditure declined as a share of national income, and all public expenditure directed towards the rural areas fell both as a per cent of GDP and in real per capita terms.

Trade liberalisation in agriculture accelerated from the late 1990s, in tune with WTO agreements, and involved liberalisation of export controls, liberalisation of quantitative controls on imports and decontrol of domestic trade. Quantitative restrictions on imports and export restrictions on groundnut oil, agricultural seeds, wheat and wheat products, butter, rice and pulses, were all removed from April 2000. Almost all agricultural products are now allowed to be freely exported as per current trade policy.

The impact of trade liberalisation on farmers' welfare works through various channels such as volatile prices, problems in imports and exports, impact on livelihood and other employment opportunities, etc. For farmers, perhaps the single most adverse effect has been the combination of low prices and output volatility for cash crops. While output volatility increased especially with new seeds and other inputs, the prices of most non-foodgrain crops weakened, and some prices, such as those of cotton and oilseeds, plummeted for prolonged periods. This reflected not only domestic demand conditions but also the growing role played by international prices consequent upon greater integration with world markets in this sector. These features in turn were associated with growing material distress among cultivators.

In a closed economy, lower output is normally accompanied by some price increase. Therefore, coincidence of lower production with lower terms of trade was very rare until recently. The pattern of lower prices accompanying relatively lower output reflected the effect of the growing integration of Indian agriculture with world markets, resulting from trade liberalisation. As both exports and imports of agricultural products were progressively freed, international price

movements were more closely reflected in domestic trends. The stagnation or decline in the international prices of many agricultural commodities from 1996 onwards meant that their prices in India also fell, despite local declines in production. This was not always because of actual imports into the country: the point about openness is that the possibility of imports or exports can be enough to affect domestic prices at the margin.

An additional issue for farmers was that, even as the uncertainties related to international price movements became more directly significant for them, progressive trade liberalisation and tariff reduction in these commodities made their market relations more problematic. Government policy did not adjust in ways that would make the transition easier or less volatile even in price terms. Thus, there was no evidence of any co-ordination between domestic price policy and the policies regarding external trade and tariffs. For example, an automatic and transparent policy of variable tariffs on both agricultural imports and exports linked to the deviation of spot international prices from their long-run desired domestic trends, would have been extremely useful at least in protecting farmers from sudden surges of low-priced imports, and consumers from export price surges. Such a policy would prevent delayed reactions to international price changes which allow unnecessarily large private imports. It would therefore allow for some degree of price stability for both producers and consumers, which is important especially in dominantly rural economies like that of India.

In the absence of such minimal protection, Indian farmers had to operate in a highly uncertain and volatile international environment, effectively competing against highly subsidised large producers in the developed countries, whose average level of subsidy amounted to many times the total domestic cost of production for many crops. Also, the volatility of such prices – for example in cotton – has created uncertain and often misleading signals for farmers who respond by changing cropping patterns. In Andhra Pradesh, it has directly affected the groundnut farmers due to palm oil imports. Import of fruits also and other commodities also affected the farmers. With increased trade liberalisation,

reduction in cereal consumption became very pronounced. Also exports of items like cotton have increased volatility in supplies of cotton raw material, which have adversely affected handloom and powerloom weavers whenever yarn prices have increased significantly due to export of cotton.

Financial sector liberalisation in developing countries has been associated with measures that are designed to make the Central Bank more independent, relieve financial repression by freeing interest rates and allowing financial innovation, reduce directed and subsidised credit, as well as allow greater freedom in terms of external flows of capital in various forms. India's financial liberalisation strategy involved all of these measures to varying degree.

Financial liberalisation measures, including reduced emphasis on priority sector lending by banks, which effectively reduced the availability of rural credit, and thus made farm investment more expensive and more difficult, especially for small farmers. In addition to declining credit-deposit ratios in rural areas, the shift of banks away from crop lending and term lending for agriculture, the reduction in the number of rural bank branches and less manpower for rural service provision all meant that the formal sector was unable to meet the requirements of cultivators, who were forced to turn to private moneylenders (who were often also input dealers and traders) in more exploitative relationships.

II. State government policies over the past decade

Agriculture is a state subject and therefore state governments have more responsibility in agriculture development. For the past decade, the state government in Andhra Pradesh not only participated in but aggressively pushed liberalisation policies, and also neglected agriculture. In addition, however, it was also crucial in accelerating the deregulation and privatisation which also marked the central government's approach. The primary role of the public sector enterprises was to protect the public from the adverse impacts of market forces

and provide them with goods and services at reasonable (and frequently subsidised) prices. The primary beneficiaries of this system were expected to be the poor segments of the population. But the state government in Andhra Pradesh systematically reduced the role of public investment, intervention and regulation, and expected private activity to deliver more favourable outcomes.

Because of the decline in public investment in agriculture, fixed capital formation in agriculture (which had recorded high growth in the 1980s) declined in absolute terms in the 1990s and thereafter. The area under public sources of irrigation, e.g., canals declined in the nineties due to deceleration in public investment and public neglect of traditional water sources. No new major irrigation project was taken up in the last nine years and several pending projects were not completed.

More than 10,000 Water Users' Associations (WUAs) have been formed, of which about 80 per cent are in the minor irrigation sector. However, the bulk of the area covered is under canal irrigation. Irrigation charges were increased by more than three times from 1997. Even so, the surface water rates at best cover maintenance charges, whereas in the case of lift irrigation the farmer also bears the full capital cost of the well or bore. The effective rate of collection remains low at around 64 per cent, possibly because WUAs have not yet been made fully responsible for collection of water charges, making the process fully democratic and accountable. Another notable development was that the works were executed by WUAs themselves at lesser cost instead of getting them done by contractors. But the vested interests lost no time in adjusting to the new situation by presidents of the WUAs acting as contractors. This and other malpractices invited the wrath of farmers who in several cases used the provision in the Act for recall of the presidents. WUAs are not found to be effective in respect of tank irrigation due to insufficient allocations.

In the case of watersheds, the state government followed the extensive approach of thinly covering many watersheds instead of the intensive approach of covering few watersheds, which made many watersheds ineffective. The state government also spent lot of funds on the 'neeru-meeru' programme which had some successes but generally did not yield the desired results, again because of the reliance on private contractors and corruption. Because of decline in surface and tank irrigation, ground water use has increased significantly increasing costs for farmers and bringing down the water table in most parts of the state. Power reforms increased the cost of power in the state. Although farmers paid only a flat rate (which increased from Rs. 50 to Rs. 300), they had to incur heavy losses in terms of erratic power, low voltage and burning of motors.

There was also a neglect of research and extension. The intensity of government investment in agricultural research and education in the state (at 0.26 per cent of its agriculture GDP during 1992-94) was lower than for the other three southern states and was just around half of that for All India (0.49 per cent for centre and states together). Public expenditure on extension, which is borne by the state government, declined in absolute terms in the nineties. It was only 0.02 per cent of the state's GDP during 1992-94, as against the All-India average of 0.15 per cent. There was an attempt to privatize extension services. As a result of these policies, extension services are currently in bad shape in the state. With the virtual breakdown of the extension machinery and lack of access to institutional credit, small and marginal farmers became increasingly dependent upon the private trade for credit and extension services. At the same time such agents were subject to less regulation than before, leading to circumstances in which resource-poor farmers became victims of exploitation by such agents.

By the late 1990s, the looming agricultural crisis was recognised to be substantially the consequence of inadequate agricultural services, including extension, reliable seed supply, quality pesticides, machinery, proper soil survey-testing, soil conservation, market information and market intelligence. However,

despite this, the state government of that time refused to recognise this or take palliative measures. A 'Working Paper' of the Department of Agriculture (1999) stated that government could act only as a facilitator and no public investment would be made in providing these services. Referring to the vast gap in agricultural extension, because of unfilled vacancies which at that time accounted for more than one-fourth of the sanctioned posts, it was declared that the state "doesn't have resources to employ any more extension workers", and so it was proposed that the entire cadre of agricultural extension officers be wound up. "Without any additional financial burden to the state", the extension services would be promoted through the private sector through a system of registration of unemployed grantees or retired employees, who would offer these services for a fee. Qualified graduates would be encouraged to become licensed dealers of fertilizers, pesticides and seeds. The burden on the AP Seed Corporation would be reduced by making the private sector more accountable through appropriate MOUs. The hiring of agricultural machinery would be encouraged through the corporate sector, NGOs and others. Soil survey, soil conservation, collection of market information were to be "encouraged to be developed in private sector with appropriate policy incentives".

With this approach of the state government, it is not surprising to find that many public institutions affecting agriculture were systematically eroded or destroyed. Some important government corporations and cooperative institutions in the state were closed, allowed to run down, or simply handed over to the private sector. These institutions, such as A.P. Irrigation Development Corporation, A.P. Agro-Industries Corporation, A.P. Seeds Development Corporation, Cooperative Sugar Factories, Cooperative Spinning Mills played an important role in helping the farmers. The running down of these institutions also affected the farmers adversely.

Similarly, privatisation of extension and the health sector have had adverse consequences for farmers. In the delivery of health and education, the

reductions in spending and reduced quality of public services has led to the increase of private sector activity which has created segmented markets for rich and the poor. Higher income groups have moved to private sector while the state has been offering services at usually much lower standards of efficiency and quality to the lower income groups. This impact has been felt strongly in the health and education services and has translated into an equity issue. The poor have also been affected by higher drug prices.

Keeping in view the main objectives of the 73rd Constitutional Amendment Act, the Government of Andhra Pradesh passed the A.P. Panchayat Raj Act in 1994. But the actual performance so far in terms of genuine decentralisation / devolution to the local bodies has been far from satisfactory. In the functional domain, the present status in AP shows that it transferred functions in respect of 16 subjects of which 5 subjects with funds and only 2 subjects with functionaries have been transferred to the local bodies. This performance is much worse than in Karnataka, Kerala and West Bengal. Moreover, a majority of the line departments in AP have not been brought under the control of the Panchayati Raj bodies. Only the relatively less important functions have been transferred to the local bodies. Some observers have argued that the proliferation of different local organisations led to confusion regarding responsibilities and resource control, and effectively weakened the panchayats.

III. Recent policy measures of the state government since May 2004

The new state government in Andhra Pradesh has recognised the magnitude of the agrarian crisis and has already made clear its intention to redirect state policy bearing in mind the need and interests of farmers. The Cabinet Sub-Committee Report on the causes of farmers suicides indicates that the government is already aware of the main forces behind the crisis and the policies required. There are a number of positive measures which the state government has already instituted, which deserve to be noted.

1. Relief package to families of farmers who have committed suicide: The state government has announced the provision of an ex-gratia amount of Rs. 1 lakh to the family of a deceased farmer and Rs. 50,000 towards liquidation of farm debt. This is not only an important welfare measure in its own right, but is necessary to indicate the degree of concern of the state and to bring some confidence to the rural community. Field visits by the Commission confirmed that in most areas visited, the package was being implemented carefully and sensitively. However, two problems need to be noted: (a) There is currently no budgetary provision for this package, which means that the amount has to be taken by the District Collector from other resources available to her/him. This is clearly not a desirable outcome and needs to be rectified. (b) The process of identifying the genuine cases has meant that many suicide cases are effectively excluded. Also, the focus on farm-related causes only has excluded others who have suffered economically because of the generalised rural distress, such as weavers, carpenters and others.

2. Help Lines: In order to reduce the despair and feelings of helplessness which have been associated with the suicides, Help Lines have been established in each district, where grievances of farmers are recorded and help is extended as far as possible.

3. Free power: The first important policy measure of the state government when it came to power was the sanction of free power to all agricultural connections and the waiver of power dues worth Rs. 1300 crores. This was important in immediately alleviating some of the extreme distress of cultivators especially in borewell-dependent lands, whose problems had been aggravated by the hike in power rates.

4. Moratorium on loans: Keeping in view the extreme nature of the crisis, a bill was passed in the state assembly providing for a moratorium for 6 months on

private money lenders. In addition, the two-year moratorium on institutional credit recovery by commercial banks as declared by Government of India was sought to be implemented.

5. Focus on institutional credit: There was a conscious drive to ensure increased credit from the banking institutions to farmers. In consequence, Rs. 7010 crores was disbursed during kharif 2004, nearly Rs. 2000 crore more than the previous year. There was rescheduling of the bank loans of 7.93 lakh account holders, amounting to Rs. 1608.21 crores, which was converted to terms loans. The State Level Banking Committee constituted a sub committee to consider strategies for timely and adequate credit and the formulation of village credit plans from Kharif 2005. It need hardly be added that, while these are all very positive measures, institutional credit remains very inadequate.

6. Stamp duty exemption: In order to reduce the costs of borrowing for small farmers, registration fees and stamp duty have been exempted for loans sanctioned up to an amount of Rs. 1 lakh for small and marginal farmers. Following an earlier request of the Commission, this move has now been widely publicised.

7. Crop insurance: The state government has written to the Government of India proposing reforms in the existing National Agricultural Insurance Scheme, including restoration of 50 per cent of premium subsidy to small and marginal farmers, enhancement of indemnity levels to 80 per cent, reduction of premium rates to 2 per cent for cereal crops and 3 per cent for commercial crops and payment compensation in two spells for kharif and rabi crops.

8. Control of seed supply: The State Cabinet has approved a new State Seed Regulation Bill 2004 to regulate production and sale of seeds. It is hoped that this will reduce or eliminate the supply of spurious seeds and reduce other problems. Even before this, a special drive was taken up in October 2004 to regulate the

quality of inputs, which also involved seizure of supplies of spurious seeds and other inputs. This is also immediately necessary to restore confidence among farmers.

9. Rs. 31 crores has been sanctioned for establishment of seed and fertiliser testing labs in all districts, seed villages and revival of public sector seed farms.

10. A comprehensive Bio-fertiliser bill to induce eco-friendly fertiliser usage mechanism is being actively considered by the state government.

11. The Chief Minister has written to the central government, Government of India, requesting that the import duties on cotton and palm oil should be increased in order to protect cotton and groundnut farmers in the state. While no action has been taken thus far, it is to be hoped that the central government will take note of the seriousness of the matter and respond favourably.

12. The Chief Minister has also requested the central government to direct the Cotton Corporation of India not to collect transport charges from cotton farmers in Andhra Pradesh. This recommendation has been accepted.

13. The state government has lifted the ban on new recruitment of Agricultural Officers imposed by the previous state government. Orders have been issued for recruitment of 270 Agricultural Officers and 491 Agricultural Extension Officers to fill up the vacant posts.

14. The state government has launched a drive to redistribute government lands of 1 lakh acres by 26 January 2005, and promised to continue the drive subsequently.

15. The state government has given priority to irrigation development. In the first phase, works worth approximately Rs. 8,000 crores are being taken up.

16. A separate Ministry has been created for rain-shadow areas, to focus on the problems of drought-prone regions.

These have all been necessary and important measures, and have certainly alleviated the worst effects of the crisis for the farmers in the state. However, the crisis in agriculture is so deep and widespread, that in spite these positive measures, the conditions of farmers remain precarious, as evidenced by the continuing suicides despite various relief measures. Much more will be required to make material improvements in the conditions of farmers. In particular, the destruction of various rural institutions has been so complete that it will take time and effort to rebuild them and generate new ones that can serve the farmers and rural workers. Since the state government has already indicated its commitment to work for the betterment of the rural community and already taken several positive steps, the Commission is confident that it will also undertake all the necessary measures in the short term and medium term.

Chapter 3: Land-related issues

I. Past land reforms

The early land reform measures in Andhra Pradesh combined and carried forward the legal measures brought from two different administrative histories, one from the Madras Presidency from which the Andhra region was brought in, and the other from the Nizam state of which Telangana was a part. As in the rest of the country, the reforms in the state can also be broadly classified into the abolition of intermediaries, tenancy reforms, ceilings legislation and other government initiatives.

In terms of abolition of intermediaries, the Madras Estates (Abolition and Conversion into Ryotwari) Act 1948 was the first legislation soon after Independence, that removed intermediaries and brought all land in Andhra area under Ryotwari. In the Telengana region, with the Abolition of Jagirdari Act of 1949, the Jagirdari tenurial system ended. With respect to tenancy legislation, the Hyderabad Tenancy and Agricultural Lands Act was enacted in 1950. It resulted in the conferment of protection to nearly 6 lakh tenants who held over 75 lakh acres of land, constituting 33 per cent of the total cultivated area. This was considered to be one of the more progressive pieces of legislation in the state. The AP (Andhra Area) Tenancy Act 1956 was enacted to ensure that tenant was not evicted from her/his holding except by law. The result of this legislation is mixed, often driving the tenancy underground.

Regarding land ceilings, as in most other states, the first round of legislation in 1961 was a miserable failure. Following the evolution of the National Guidelines, the AP (Ceiling on Agricultural Holdings) Act was passed in 1973. In spite of several fraudulent means to falsely retain land, against an estimated surplus land of 20 lakh acres, only 5.77 lakh acres were distributed among 4.79 lakh beneficiaries till the end of 2002. This amounted to just 1.25 per cent of the net sown area. Of the beneficiaries, 42 per cent were SCs who were assigned 39

per cent of land, while STs constituted 14 per cent of the beneficiaries accounting for 20 per cent of the land. A major step in land distribution in the state was the assignment of government land to the landless poor, which accounted for 12.5 per cent of the new sown area. Andhra Pradesh, along with West Bengal and Jammu and Kashmir, is one of the few states to have substantially redistributed government held land. By the end of 2002, 43.21 lakh acres were distributed among 23.98 lakh beneficiaries, of whom 24 per cent were SCs and 28 per cent were STs.

II. Current issues relating to land

Land relations in Andhra Pradesh are extremely complicated and this complexity has contributed significantly to the problems facing actual cultivators in the state. Because of the fact that in many areas (especially Telengana) the names of the current holders and actual cultivators are not recorded in the land registers, such cultivators are not eligible for institutional finance and a range of other public benefits such as compensation in the event of natural calamities, and so on. In addition, some regions (especially in more irrigated areas) have a high proportion of tenancy, which is typically unrecorded, and tenant farmers face similar difficulties in accessing bank loans and other benefits. They are therefore all driven to the informal credit market, which supplies loans at very high rates of interest, which in turn adds greatly to their cost of cultivation. In tribal areas there are even more difficult issues of land entitlement, especially as it is evident that Act 1/1970 is not being properly implemented in the agency areas and tribal people are being denied their land rights in such areas.

In large parts of the state, the existing land records do not accurately portray the actual position with respect to land holding and cultivation. Subdivision and fragmentation of holdings over generations, consequent upon household division, are not reflected in the land records, which sometimes continue to list the names of deceased holders, etc. This problem is especially acute in Telengana. The

settlement of revenue records is meant to take place every ten years because of such processes of changing ownership and cultivation holdings. However, in Andhra Pradesh, the resurvey and resettlement of revenue records have not taken place for more than fifty years. This has meant increased disputes related to land and insecurity of holding, especially for small farmers.

Additionally, women cultivators are rarely if ever listed as the owners of land, even when they are the actual cultivators. This is despite the fact that the Land Revenue Act of 1999 [in particular Section 98(1), 105(1) and (2E)] make it the responsibility of the state government to enter the name or names of the actual cultivators in the Record of Rights.

While there are no records and therefore no official statistics on the extent of tenancy, reliable estimates suggest that tenancy is quite high, amounting to around one-third of the cultivated land and often a larger proportion of farmers. Table 1 provides some estimates based on a recent survey. In the field visits it was found that, in addition to completely landless cultivators, many small farmers who own very small plots also tend to lease in additional land. There was no district without some amount of tenancy, and in some areas it is quite significant. The incidence of tenancy tends to be higher in irrigated tracts and in regions where rainfall is more plentiful, in other words, where there is more assured water supply. Tenancy is particularly widespread in coastal Andhra.

Table 3.1: Land holding structure in select villages from across Andhra Pradesh

Name of the Region	Name of the Village	Total No. of House holds	Total Owned Area (Acres)	Total Leasing Households		Total Leased in Area		Average Size of Owned Holding (Acres)
				No.	Per cent of Total House holds	Area (Acres)	Per cent of Total Owned Area	
South Coastal Andhra	Mentipudi	90	119	37	41.11	60	50	1.32
	Kothapalli	208	116	78	37.5	80	69	0.55
	Seethampet	170	375	28	16.47	64	17.07	2.21
South Telangana	Arepalli	339	1016	18	5.31	54	5.31	2.99
	Tadiparti	216	724	15	6.94	68	9.39	3.35
North Telangana	Chinnapur	216	297	23	10.65	43	19.91	1.37
	Nagaram	170	379	14	8.24	24	6.33	2.22
North Coastal Andhra	Jonanki	151	271	43	28.48	59	21.77	1.8
	B. Koduru	171	407	6	3.5	28	6.89	2.29
Rayalaseema	Cheldiganipalli	101	228	1	0.03	1	Negl	2.25
Total		1838	3931	263	14.3	641	16.31	2.14

Source: R. S. Rao and M. Bharati (2003)

The increasing extent of tenancy over the past few decades has been associated with a shift away from sharecropping to fixed rent tenancy. Earlier, sharecropping tenancy dominated, with the crop being shared on a 50:50 basis. However, most tenancy contracts are now fixed rent contracts. The fixed rent systems are of two kinds: those which involve an advance of working capital from the landlord, and those which involve no such advance. The latter type of tenancy contracts tend to be more common.

Tenant farmers face a range of problems, dominantly stemming from the lack of official recognition of tenancy and the fact that their status as actual cultivators is nowhere recorded. This continues despite the fact that Sections 105(1) and (2E) of the Land Revenue Act 1999 stipulate that the names of tenants should be recorded in the revenue records. This lack of recognition effectively denies tenant farmers all access to institutional finance such as bank credit and crop insurance. In addition, they cannot benefit from any of the government schemes directed to farmers, or get any assistance or compensation

at times of natural calamity, since such benefits go to the registered owner of the land. Nor do they receive any of the free or subsidised inputs which are distributed to owner cultivators from the state government, such as seeds, subsidised fertilisers and pesticides and implements.

The field visits suggested that cash rent rates are typically quite high, ranging from Rs. 3,000 per acre in unirrigated and less fertile areas (such as in parts of Anantapur district) to as much as Rs. 7,000-9,000 per acre in irrigated areas of higher soil fertility (such as in Guntur). In the fertile south coastal Andhra region, rents can go up to as much as Rs. 15,000 per acre. These rates are in direct contravention of the AP (Andhra area) Tenancy Act of 1956 and its 1974 amendment (Act 39 of 1974) under which land rents are controlled. In actual practice tenants are currently paying more than 3 or 4 times the rents stipulated in this Act.

As noted above, land ceiling laws have been relatively ineffective in Andhra Pradesh. Only 5.1 lakhs of surplus land have been acquired in total, which suggests that the laws have been counteracted on the ground by *benami* transactions and distribution of large ownership holdings among family members. In addition, in the recent past there appears to have been substantial corporate acquisition of land, although exact data on this could not be found.

Despite this, operational holdings have become much less concentrated. The available data presented below suggest that there has been a decline in the absolute number and area covered by large and medium holdings since 1971. There is therefore an increase in smaller holdings compared to large holdings, and it is evident that many of these must be held under tenancy contracts. The substantial increase in marginal holdings, which accounted for more than half of farmers in the early 1990s, is likely to have contributed to the difficulties of ensuring that cultivation provides a reasonable livelihood.

Table 3.2: Distribution of operational holdings 1970-71 to 1995-96

Year	Marginal (below 1 ha)	Small (1-2 ha)	Semi-medium (2-4 ha)	Medium (4-10 ha)	Large (above 10 ha)
Per cent of holdings					
1970-71	46.0	19.6	17.4	12.7	4.3
1995-96	59.4	21.3	13.2	5.3	0.8
Per cent of area					
1970-71	8.0	11.3	19.2	35.2	26.3
1995-96	20.2	22.5	26.0	22.5	8.9

Source: Mahendradev and Mahajan (2004).

There is also substantial landlessness in rural Andhra Pradesh. The NSS data show that AP has the second highest extent of landlessness among rural households, after Punjab. Some of this landlessness is itself the result of the growing difficulties of cultivation, as indebted small and marginal farmers have been forced to sell or give up their land because of the inability to repay their debts through the proceeds of farming. It is also the case that landlessness is heavily concentrated among the Dalit and tribal populations.

Table 3.3: Per cent of landless households in rural areas

	AP	India
1987-88	45.9	35.4
1993-94	49.5	38.7
1999-2000	52.3	40.9

Source: NSS Surveys on Employment and Unemployment

There are increasing problems of soil degradation and fallow land. The proportion of waste and fallow land has increased significantly since the early 1990s. This has actually meant a decline in cultivated area. While adverse weather and rainfall conditions have certainly been associated with this, it is also true that cultivation practices have eroded soil qualities over time. The problem is

especially acute in certain areas of Rayalaseema and northern Telengana, where cropping pattern shifts and greater use of chemical inputs have led to declining soil fertility and even forced fallows. In other areas, the increase in current fallows also reflects the lack of viability of cultivation, as small farmers migrate in search of other incomes rather than cultivating their fields at a loss.

III. Recommendations

Regarding land records:

1. A fresh settlement of revenue records is imperative. This requires a major administrative drive to record the actual cultivators. While this has to be undertaken by the Revenue Department, it will require the assistance of local governments and agencies.

2. It is necessary to record the changed land classification consequent upon provision of assured irrigation, which affects the division between wet and dry land. Revenue registers should be adjusted accordingly. This is also likely to release more land for redistribution.

3. It is necessary to ensure that all the provisions of the Land Revenue Act of 1999 are complied with.

4. At the gram panchayat level, the post of Revenue Secretary should be created.

4. Pattadar passbooks must be provided to all cultivators. A special drive should ensure that women cultivators also receive passbooks.

5. Land rights of women as joint holders should be recognised under the Transfer of Property Act.

6. Land rights of tribal populations should be clearly recognised and tribal farmers should also be issued pattadar passbooks.

7. Act 1 of 1970 should be implemented, with constant monitoring and prevention of infiltration into tribal areas.

8. Land cases where tribal interests have been adversely affected should be reopened.

9. The state government should computerise land settlement particulars and ownership and enjoyment details, patta and survey-number wise, after rigorous cross-checking of these details. These computerised particulars should be available to farmers at the mandal level on payment of a small fee, employing computerised touch-screens as is done in Tamil Nadu and Karnataka. Since mutations are a continuing process, the state government should monitor all kinds of transfers and changes closely and update the records accordingly.

Regarding tenancy:

1. It is the responsibility of the state government to record tenants as cultivators and issue passbooks to them. The names of tenant farmers (including also women) must be recorded in the revenue records, through a systematic official drive over three months. In such registration, the onus should not be on the tenant to prove his/her tenancy, but on the landlord to disprove it.

2. Tenant farmers should receive tenant passbooks and all financial institutions (banks, co-operative societies, insurance companies, etc.) should honour these passbooks for extending credit and other facilities.

3. Tenant farmers as actual cultivators should be entitled to the various benefits provided by government to other farmers, including subsidised inputs, compensation for losses during calamities, etc. This will require careful separation of owners from tenants and clearly establishing who is actually cultivating any piece of land, which means continuous monitoring by some local body.

4. The existing rules with respect to rent ceilings should be enforced. Once again, this will require monitoring by local bodies

Medium term proposal:

1. The existing tenancy legislation is widely considered to be too rigid, preventing the owners from entering into any recorded contract and responsible for driving tenancy underground. The legislation should be modified so as to ensure open tenancy with adequate security to the tenant. Both fixed rent tenants and sharecroppers should be protected.

Regarding land distribution:

1. The state government should take an inventory of all its land, especially around urban centres, and identify illegal occupation, including any which have been subsequently regularised, over the past 20 years. For currently illegal occupation, the land should be resumed by the state government of the current holders should be made to pay the current land value of the land. In cases of regularisation, the justification for this should be reviewed, and in cases where this is not found to be justified, the same procedure of resumption by the state or payment of current market prices should be followed.

2. There is considerable scope for further land redistribution, particularly when waste and cultivable lands are taken into account.

3. Public lands which have been given away on the basis of specific promises over the past 20 years should be reviewed, and in cases where the promises on the basis of which the land was allotted have not been kept, the land may be resumed or the current market value of the land may be charged to the holders.

4. The Act preventing alienation of redistributed land has not been enforced. The state government must examine all such cases, resume such land wherever it is identified and restored to original assignees.

5. In cases of displacement of farmers due to irrigation schemes and other such projects, similar land of the same size should be provided to the displaced farmers in the same command area.

6. The state government should undertake a drive to identify waste and long-term fallow lands. This can be done by Gram Panchayats/Gram Sabhas.

7. Agricultural land held by religious institutions should be given on long lease to the landless poor.

6. In terms of the mechanism for land distribution, the Assignment Committee should not be in the hands of political leaders. However, Gram Panchayats should be associated and Gram Sabhas should decide on the eligibility and priority of beneficiaries, with actual responsibility for assignment resting with by the officials of the Department of Revenue, monitored by Collectors associating with people's committees.

7. The future assignment of land to beneficiaries should be in favour of women as far as possible. In general there should be clear criteria for assignment of

land, noting features of the beneficiaries such as single :parent, widowed, SC/ST, etc.

8. Complementary inputs for cultivation (such as initial land development, input minikits, credit, etc.) should be provided to all assignees.

9. There is nearly 1 lakh acres of land under cultivation by tribal farmers in so-called forest areas and occupied before 1980. This should be regularised.

10. The right of the rural poor to access and use Common Property Resources (ranging from fruit trees on common land to minor forest produce) should be ensured.

11. The AP Homestead Act (date) should be revised by the date of applicability and must be enforced to provide homestead land to all rural households.

12. The Panchayats (Extension to Scheduled Areas) Act has been held up because the Gram Sabha has not been defined in rural areas. The rules should be notified and the Act must be implemented.

Proposals for the medium-term

13. Co-operative joint farming societies should be promoted in case of very small and marginal holdings.

Chapter 4: Rural Credit

The present crisis in the agricultural sector in Andhra Pradesh brings into focus the lacunae in the rural credit system, which have added to the woes of the farmers. Most of the rural credit in the state is still supplied from non-institutional sources, and it is estimated that formal credit meets less than 30 per cent of the credit requirements of the farmers. It is very important that the credit requirements of agriculture be assessed and met by the formal sector, and that farmers are liberated from enforced dependence upon private moneylenders.

Subsequent to financial liberalisation in the 1990s, there has been a significant deceleration in the growth of bank credit, particularly from commercial banks to rural areas. Also notable is the relative fall in proportion of bank credit flowing to the priority sectors, especially agriculture. The impact of the slowdown in rural banking has fallen disproportionately on poor and small borrowers.

It may be noted here that large-scale survey data on the situation of rural debt are outdated, as the results of the All-India Debt and Investment Survey 2001-02 have not been published. Although, there are no large scale survey data available for the 1990s, village studies indicate that non-institutional or informal credit is the main source of credit for the large majority of rural households today. To illustrate, a recent survey of eight villages found that only 20 per cent of all agricultural loans were provided by institutional sources (Table 4.1 below). The study also found the share of institutional sources in total loans to be 20 per cent. The informal sector thus dominates the village credit market, and it is clear that interest rates charged in the informal sector remain high (24 to 36 per cent per annum).

Table 4.1: Source-wise Interest Charges on Agricultural Loans in Select Villages of Andhra Pradesh

	Rate of Interest	Institutional Loans		Non-Institutional Loans		Total Loans	
		Number	Per cent	Number	Per cent	Number	Per cent
	<12%	4	1.75	0	0	4	0.04
	12%	112	49.12	14	1.51	126	10.94
	13 to 23%	73	32.02	3	0.32	71	6.16
	24%	31	13.59	370	40.04	401	34.81
	36%	8	3.5	479	51.84	487	42.27
	48%	0	0	5	0.54	5	0.04
	60%	0	0	37	4	37	3.21
	>60%	0	0	16	1.73	16	1.39
Total		228 (19.79)	100	924 (80.21)	100	1152 (100)	100

Sources: N.Shyam Sundar (2003) and R.S.Rao and M. Bharati (2003)
 Note: Figures in parenthesis refer to the share in the total number of loans.

Formal agricultural credit is disbursed through a multi-agency network consisting of Commercial Banks (CBs), Regional Rural Banks (RRBs) and Cooperatives. Among formal institutional agencies, commercial banks play a dominant role, contributing about 74 per cent of total institutional credit to the rural sector. The state is served by 48 commercial banks with 4041 branches. Out of the total branches, only 1531 (38 per cent) are rural branches. Co-operative banks and RRBs account for about 15 per cent and 11 per cent of total rural institutional credit respectively.

Commercial banks

The share of agriculture in the total credit flow of commercial banks has been declining over the last few years and it came down from 70 per cent in 1998-99 to 50 per cent in 2002-03. Within agriculture, the share of crop loans has declined from 58 per cent to 43 per cent during the period 1998-99 to 2002-03, while the share of agriculture term loans disbursed has declined from 12 per cent

to 7 per cent. The share of agriculture in actual disbursement (ground level credit flow) has declined from 80 per cent in 1993-94 to 50 per cent in 2002-03. Apart from lending less than the stipulated target of 18 per cent, many commercial banks are shying away from agriculture and priority sector lending by resorting to the soft window option of investing in the RIDF window of NABARD.

The credit-deposit ratio for rural bank branches in Andhra Pradesh declined from 80 per cent in 1990 to 62 per cent in 2002. Even now, many commercial banks are not adhering to the stipulated 60 per cent credit-deposit (CD) ratio: in seven districts the CD ratio has been below 50 per cent during the year 2004 and in ten districts it has been below 60 per cent. Around 57 per cent of bank agricultural credit goes to the coastal region, 13 per cent to Rayalaseema and 29 per cent to Telengana. In addition to the regional disparity in credit disbursal, the banks, increasingly under the sway of a liberal financial regime, appear to be reluctant to lend to small farmers. The policy is oriented to the logic that it is better to lend to a small number of large borrowers than to a large number of small borrowers. Further, tenant farmers are entirely outside the ambit of the formal credit market, due to lack of documents that recognise their rights as cultivators.

Table 4.2: CD Ratio in different districts as on June 30, 2003

District	Public Sector Banks			
	Offices	Deposits	Credit	CD Ratio
Adilabad	73	1035.37	402.17	39
Ananthapur	117	1570.3	732.01	47
Chittoor	157	2876.91	1112.4	39
Cuddapah	89	1156.49	548.32	47
East Godavari	286	2732.3	2092.94	77
Guntur	254	2652.6	2289.6	86
Karimnagar	127	2163.19	790.63	37
Khammam	83	915.49	364.6	40
Krishna	288	2963.98	2030.92	69
Kurnool	136	1334.65	805.54	60
Mahaboobnagar	124	914.16	558.6	61
Medak	93	893.87	1543.89	173
Nalgonda	103	805.48	649.44	81
Nellore	127	1225.6	899.03	73
Nizamabad	127	1195.43	650.2	54
Prakasam	164	1344.61	969.62	72
Rangareddy	156	2863.64	1527.29	53
Srikakulam	79	750.01	446.26	60
Vishakapatnam	207	4114.18	2845.41	69
Vizianagaram	70	619.47	281.28	45
Warangal	136	1481.02	766	52
West Godavari	233	1920.23	1780.91	93
Grand Total	3229	37528.98	24087.06	65
Coastal Districts	1708	18323	13636	72
per cent	53	49	57	
Rayalaseema	499	6938	3198	48
per cent	15	18	13	
Telangana	1022	12268	7253	68
per cent	32	33	30	
Drought Prone Districts	1374	16461	9660	64
per cent	43	44	40	

Source: RBI Banking Statistics - Quarterly Handout - March, 2004

Term lending has fallen short by about 50 per cent of the target in the past three years, when the peasants in the state suffered acute water shortage for crops. This highlights the gross failure of the institutional credit mechanism. It is obvious that institutional credit failed the peasantry at the time when it was

needed most. The scale of finance has typically been very low, much lower than the prescribed limit for crop loans, as described in Table 4.3 which indicates that the average for the state as a whole was less than Rs. 10,000 per loan and in some districts like Mahbubnagar and Vizianagram it was less than Rs. 5,000.

Table 4.3: Average Disbursement of Crop Loans to Cultivators in A. P

District	Amount Disbursed (Rs.in Crores)	No. of Cultivators (1991 Census Data)	Average disbursement per cultivator in Rs.
W. Godavari	815	219955	37053.03
E. Godavari	681	249094	27339.08
Krishna	653	243322	26836.87
Guntur	729	384353	18966.94
Prakasham	528	337228	15657.06
Nellore	283	217978	12982.96
Kadapa	315	272545	11557.72
Kurnool	382	331821	11512.23
Khammam	246	261090	9422.04
Nizamabad	302	326904	9238.19
Anantapur	428	490385	8727.84
Warangal	268	413934	6474.46
Chittoor	342	528514	6470.97
Karimnagar	273	457958	5961.25
Adilabad	173	294493	5874.50
Ranga Reddy	148	256505	5769.87
Medak	225	419894	5358.50
Vizak	251	477449	5257.11
Nalgonda	213	416879	5109.40
Srikakulam	167	333823	5002.65
Vijayanagaram	173.83	368490	4717.36
Mahaboobnagar	251	586403	4280.33
Total	7846.83	7889017	9946.52

Source: Statistical Abstract of AP, Directorate of Economics and Statistics, 2003.

The interest rates in respect of agricultural advances have been higher than in the case of many other sectors. Banks have not designed efficient procedures for lowering the interest rates for this section of borrowers and there

have been few innovations designed to cope with the special demands of agriculture. Nor are interest rates uniform across banks.

The fundamental issue in agricultural credit is that of the heightened risk perception of banks, which is manifest in their asset allocation policies. However, a comparison of levels of non-performing advances (NPAs) reveals that the NPAs arising from agricultural advances are less than those of other sectors.

The rural operations of commercial banks have always been understaffed. The voluntary retirement scheme has brought down the staff strength even further, impacting rural branches adversely. Many of the staff manning rural branches are posted there reluctantly and are unlikely to provide quality service to their clientele. Their lack of familiarity with agriculture and rural issues adds to problems in lending. The cadres of commercial bank officers do not have specialists in agriculture and other allied activities in rural areas (such as Agriculture Development Officers and Rural Development Officers) as was the case in the past. The Commission received a number of complaints from farmers about the negative attitude of bank staff.

Rain-fed and drought-prone areas suffer from low credit disbursement by commercial banks, since the costs of lending in these areas are seen to be high. The cost of lending differs across regions, depending upon factors such as the extent of irrigation, population density, differences in transportation cost and the time involved in contacting a similar number of people in a sparsely populated region. Therefore, there is a need for providing specific fiscal incentives to banks operating in less well-endowed regions.

Regional Rural Banks

Regional Rural Banks (RRBs) were set up in 1975 by an Act of Parliament to cater exclusively to the credit needs of rural population, especially small and marginal farmers. RRBs are owned by the central government (50 per cent), the

state government concerned (15 per cent) and a sponsor commercial bank (35 per cent). The sponsor bank manages the RRBs. They are 16 RRBs with 1168 branches in the state of Andhra Pradesh.

An analysis of agency-wise credit flow in the state shows that the share of commercial banks has gone up and the share of Cooperatives has come down. But the share of RRBs is more or less stagnant at around 10 per cent of total credit disbursement.

There are many reasons for the marginal role of RRBs in total credit. Consequent upon the central governments' financial liberalisation measures in the early 1990s, the performance of the RRBs was evaluated on the basis of commercial profits instead of social benefits and RRBs were brought on par with other commercial banks in so far as the "weaker sections" and priority sector credit norms were concerned. The interest rates of the RRBs were freed, which led to a situation of the RRBs lending rates becoming the costliest among the formal players in the rural areas. In effect, credit from RRBs became costlier than from other agencies and the share of the "weaker sections" reduced drastically from 100 per cent to 10 per cent.

Cooperatives

The Andhra Pradesh Cooperative Bank (APCOB) is the apex body for credit co-operatives, with 24 branches. There are 22 District Cooperative Credit Banks at the district level with 583 branches and 4610 Primary Agriculture Cooperative Societies (PACS) at the village level covering 26,586 villages. Each PACS covers 5 to 6 villages. Properly functioning co-operatives are crucial for rural credit and should form the backbone of rural credit provision in the state. However, credit co-operatives in Andhra Pradesh, as elsewhere in the country, face problems such as political interference, lack of professionalism and lack of democratic functioning.

DCCBs have a number of problems. Deposits and recovery rates are low and have been declining. Due to poor recovery and high levels of NPA, recycling of funds is not possible. The viability of DCCBs has been a threat to the entire cooperative credit structure in the state. Only 8 DCCBs have been recognised as eligible for refinancing by NABARD. The recent credit disbursement performance of kharif 2004 indicates that co-operative banks have met only 60 per cent of the target for crops loans, which is even lower than what was achieved in the previous year. While they have provided more term loans, the rescheduling of crop loans to term loans has not taken place.

Various committees, including the Vyas Committee, the Capoor Committee, the Vikhe Patil Committee, the Rama Rao Committee, have looked into the functioning of co-operatives at the national level and in Andhra Pradesh. This Commission was not able to go into the issues with respect to credit co-operatives in any detail. However, the need to rejuvenate the cooperative structure is obvious and pressing, and the Commission therefore feels that the state government should undertake all possible measures for financial revitalisation and improved democratic functioning of the cooperatives. The synergies of commercial and cooperative strengths can be exploited, for example, if the DCCBs are to be ceded to one or other of the lead banks for some period until they are fully nursed back to health.

Recommendations

On access to bank credit

1. The basic aim of the formal banking system in the rural areas should be to ensure that all the credit requirements of farmers and other occupational groups are met, and that the coverage of the formal financial system is

extended to all rural households. For this, the emphasis on social banking rather than profit-based banking must be revived.

2. There must be a drive to ensure that all farmers (owner and tenants, including women farmers) receive kisan credit cards. The full scheme with respect to kisan credit cards must be implemented and there should be concurrent evaluation.

3. Before kisan credit cards are universally available to all cultivators, the transaction costs for borrowers should be reduced through establishing a single-window clearance. The need for a No Objection certificate from all banks in the vicinity should be done away with; instead, such banks within a particular service area should share among themselves the list of names of defaulters and borrowers well in advance of the crop season. The modalities of this process need to be worked out by the SLBC.

4. Prior to receiving pattas and kisan credit cards, tenant farmers and tribal farmers may access bank loans on the basis of certification of area cultivated by any one of the following: (a) Gram Panchayat (b) Self-Help Group (c) Village Organisation (d) Watershed Committee (e) Water Users' Association (f) Gram Sabhas in agency areas.

5. The composition of the State Level Banker's Committee (SLBC) should include farmers' representatives, NGOs and District Collectors from the three regions of the state. The District-Level Bankers' Committee (DCC) should similarly include representatives of farmers. The Collector at the District level should have a larger role by way of supervising the mechanisms relating to credit delivery including attitude of bank staff and the volume of credit that should reach the farmers. Block level Bankers' Committee (BLBC) should be revived and chaired by the Revenue Divisional Officer.

6. There is need for both state-level and national studies on the problems of rural credit in the era of financial liberalisation. We recommend that the state government

- commission a study on the state of rural indebtedness, and
- call for the RBI and NABARD to set up a High-Level Committee to review the working of the rural credit system.

7. At the national level, private banks should be brought under the discipline of social banking and adhere to the norms prescribed for nationalised banks.

8. The Agriculture Sub-Committee of the SLBC should ensure that the following are done regularly and within the required time:

- Assessing the credit needs, in terms of quantum and terms such as repayment schedules, for every year both crop-wise and season-wise, as well as checking the actual disbursal.
- Estimating the number of small and marginal farmers (men and women) to be included in the credit disbursal plan every year, and giving them priority.
- Estimating the credit needs of all the mandals with a special focus on drought-prone areas.

Similar activities should be undertaken by the District Consultative Committees and BLBCs.

9. The decline in credit disbursal must be reversed immediately. Therefore the following should be done at the very least:

- Banks should aim to return to a credit-deposit ratio of 80 per cent. Special attention should be paid to seven districts in which the CD ratio was below 50 per cent during 2004.

- The share of agriculture in total advances should be increased to a minimum of 25 per cent, which is the share of agriculture in the state's GDP.
- Indirect lending to agriculture should be in addition to this 25 per cent floor for agricultural lending. Specifically, lending for the following should be excluded from the category of agricultural lending: RIDF, agribusiness, agro-processing and urban-based activities.

10. With respect to the scale of finance:

- The RBI guideline with respect to loans without security must be strictly adhered to. Bank branches must be required to provide information about how many such applications have been received and how many loans have been given on that basis.
- Banks must observe the guidelines on scale of finance while sanctioning crop loans.

11. Other than crop loans (which must be at least 25 per cent of lending) there should be emphasis on lending for related activities such as dairy, livestock, fisheries and other on-farm enterprise.

12. Loans from institutional sources need to be available to farmers before the agricultural operations commence, so the government should direct all credit delivery institutions to begin the procedures well in time for the coming season.

13. Commercial banks must increase the number of rural branches, to reach one branch per 15,000 rural population, and provide adequate staff strength, including specialised officers such as Agricultural Officers.

14. The extension work of the bank should include both adequate and timely credit on the one hand and extension of agricultural technology on the other.

15. Banks need to inform potential and actual borrowers of all the various loan schemes available, the terms and conditions attached to loans, and particularly the terms of rescheduling etc. Such information should be displayed prominently in all bank branches in English and Telugu. Special attention should be taken to ensure that illiterate borrowers and potential borrowers are aware of the terms and conditions of loans.

16. The attitude of bank staff towards farmers needs to be re-oriented and monitored, with orientation to ensure that bank workers have a farmer-friendly attitude and avoid delays in sanctioning small loans.

17. Guidelines and application forms for loans need to be standardised and made easily available through websites, concerned government agencies, post offices, etc.

18. A strong grievance mechanism needs to be put in place at the Mandal level to ensure that the proposed guidelines are met by local bank branches. This could be assisted by the Gram Panchayats and under the overall supervision of the Mandal Revenue Officer.

19. Each branch manager must be held responsible for fulfilment of norms and punitive action must be taken against those who do not fulfil the norms, or according to complaints received by the grievance mechanism. Similarly, there should be incentives provided to bank staff who perform well in terms of providing adequate and timely credit to farmers. This must be done at the DCC level.

On interest rates and rescheduling

1. The state government should initiate a to set up a Distress Fund, with support from RBI and NABARD, that will provide support to banks in chronically drought prone areas, and permit some debt relief to cultivators. These funds may also be used to guarantee/underwrite loans taken by land reform beneficiaries (D form patta holders) and tenants.
2. All banks and co-operative societies lending to agriculture should provide a uniform rate of interest. This rate of interest should be 6 per cent annual rate at present, and even in future should not exceed the short-term deposit rate by more than 2 percentage points. Interest rates on bank loans must not be compounded every quarter.
3. Banks should not insist on 25 per cent margin money for crop loans.
4. There should be some incentives (in terms of reduced interest payment) for timely and prompt repayment.
5. Interest should not be charged for period of current rescheduling. Whenever an area is declared as drought-affected, interest should be waived, without changing other terms of rescheduling.
6. **The accumulated interest on a loan should not exceed the principal amount of the loan.** All the excess of accumulated interest over principal should be automatically written off by the banks. This will require appropriate amendment of the banking regulations, but is in conformity with the official government laws regarding private loans.
7. While banks have rescheduled crop loans according to the guidelines provided, in many cases new loans are not being given to those farmers whose loans have been rescheduled, even though this was also stipulated. Fresh loans must be provided to all such farmers.

8. Farmers who approach Helpline and are identified to be in genuine distress should be provided with access to loans up to Rs. 50,000.

9. Wide publicity should be given to the Andhra Pradesh (Andhra Area) Debtors' Protection Act, 1934 and it must be strictly implemented, especially with reference to interest rates and land alienation.

For regional rural banks

1. RRBs are rural financial institutions with professional management culture to meet small-value, large-volume rural credit needs. **There is a need to revamp the structure of RRBs so that they play a critical role in achieving the developmental targets in the rural sector and emerge stronger.**

2. RRBs should not be merged with their parent sponsoring organisations or commercial banks so that they may continue to meet the special needs of rural areas.

3. The RRBs in the state require capitalisation to revitalise their credit operations, so that all of them may reach CAR of 7 per cent.

4. As for commercial banks in rural areas, NPA norms of RRBs should be eased and allowance made for seasonal requirements.

5. The pre-1992 norms for CRR and SLR, under which RRBs were treated differently from other banks, should be re-imposed.

6. The ban on fresh recruitment should be lifted immediately and adequate staff must be ensured in the RRBs.

7. RRBs should not be shifted from rural locations, and those that have been shifted should be relocated to rural areas.

Special needs of drought-prone areas

There is a need to work out a separate branch model so that operating culture and business orientation in bank branches in these regions is explicitly designed to suit the local conditions. This requires changes in the policies of RBI and NABARD.

1. For banks in drought-prone areas, the following incentives may be considered:
 - The performance criteria for banks should be different and more flexible in drought-prone areas
 - The interest tax should be lowered for banks providing agricultural credit in drought prone districts due to the risky nature of investment due to persistent drought.
2. Flexible and longer repayment schedules are necessary for crop loans in drought-prone areas.
3. New and innovative instalment repayment collection systems need to be tried out.

Crop insurance

Since agriculture has become an even more risky enterprise, crop insurance is essential. But only a very small proportion of cultivators are today covered by the National Agricultural Insurance Scheme (NAIS).

1. The coverage of this scheme must be expanded to make it accessible to all farmers, not only borrowers of institutional finance, and to cover all crops, including horticultural crops.

2. The 50 per cent subsidy (provided by state and central governments) on the premium on crop insurance for small and marginal farmers should be maintained.

3. The premium rates paid by the cultivator should not exceed 3 per cent for any crop. Where the rate is higher, the balance should be met through a subsidy provided to the insurance company by the government.

4. Crop insurance should not be compulsory for any farmer, including those taking crop loans from banks.

5. The amount insured may be flexible, in that farmers may choose to insure any amount up to a specified limit per crop per season.

6. Insurance companies must be allowed to increase staff substantially so as to be able to cater to the requirements of rural customers.

7. The current principles for calculating compensation should be revised. The Department of Agriculture has already proposed the following:

- the threshold yield should be based on normal yield instead of the preceding three or five years.
- the minimum indemnity should be 80 per cent instead of 60 per cent.
- the level for calculation of insurance compensation should be the village.
- the settlement of claims should be quick, within 60 days of the claim.

Chapter 5: Water, irrigation and power

I. Issues in access to water

Inadequate water supply is one of the most significant problems facing most farmers in Andhra Pradesh. There are only a few districts where levels of irrigation are high (especially surface irrigation) and rainfall is also adequate. In most parts of the state, ensuring water for crop cultivation has become not only a constant concern but also a major source of increased expenditure. Historically, canal irrigation has been very unevenly distributed across the state. In addition, the decline of surface water sources (especially tanks) because of neglect and other factors has led to greater reliance on the exploitation of groundwater, which entails substantial costs on individual cultivators, in the form of digging borewells, etc.

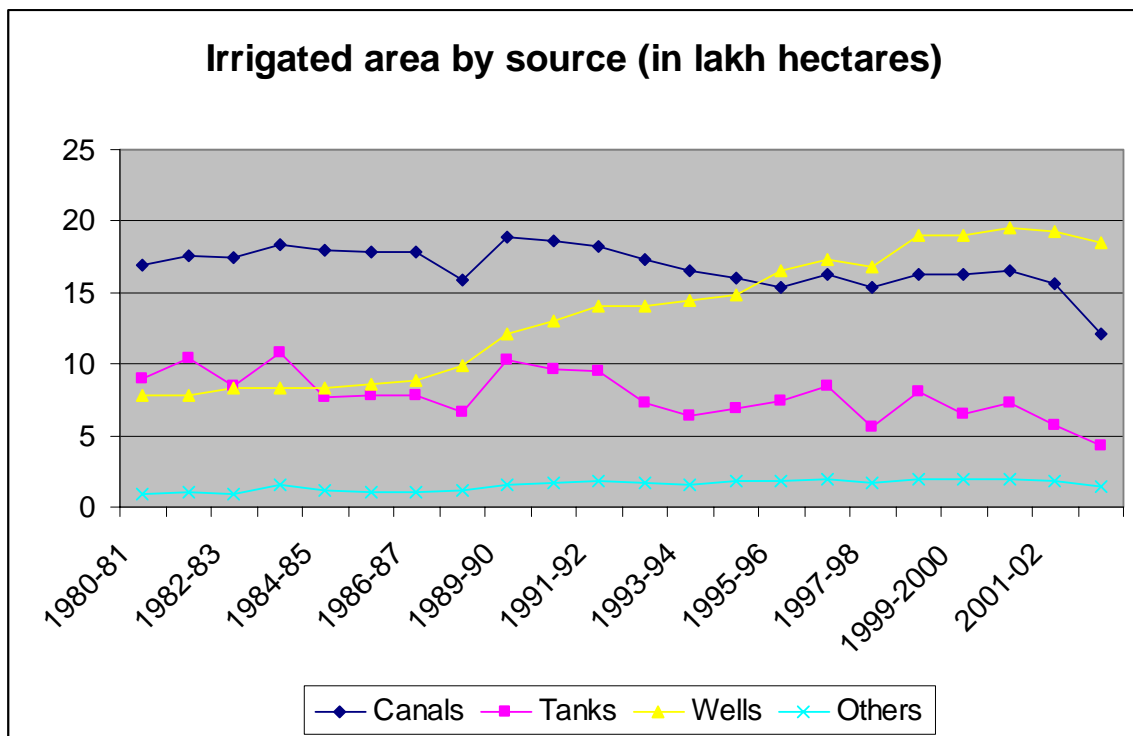
The problem has been aggravated by the spate of droughts in recent years, as rainfall has been substantially less than normal over most years in the past five-year period, and has also been untimely, with the southwest monsoon in particular arriving later and being concentrated in certain period, with longer inter-spell dry periods. The impact of a series of continuous droughts cannot be underestimated. It has affected surface and groundwater sources. Tanks have not filled and have silted up. Of course, there are other problems with tanks: in many areas, tanks have fallen into disuse because of lack of care, disruption of feeder channels, breakdown of village or community control, low investment and corruption among local officials.

Micro-watershed programmes have failed because of inadequate rainfall, along with the facts that the investment has been spread across too many areas and so has typically been inadequate for each watershed, and that there may have been some diversion of funds due to corruption. Groundwater levels have been falling due to the combination of poor rainfall and over-exploitation, with the

latter cause being more significant. While farmers opt for borewells because they reduce uncertainty, across the state the Commission came across farmers whose borewells had run dry, and who were indebted because of the high costs of digging additional borewells in the desperate search for groundwater. Indeed, the costs associated with borewells count among the most important causes of cultivators' indebtedness. The Commission has observed that there are large inequities between farmers who have access to canal water and others who are dependent upon private borewell irrigation.

The chart below shows how wells (especially borewells) have become the dominant source of irrigation in the state, displacing canal irrigation and tanks, both of which have declined in terms of absolute area covered. These reflect undesirable patterns of water use, which are also likely to lead to future problems in terms of water availability.

Chart 5.1: Irrigated area by source



Source: AP Economic Survey 2003

The decline in area under tank irrigation is likely to be even more than is recorded in the official figures.

Table 5.1: Ratio of Ground Water to Surface Irrigation Across Regions

Regions	Normal Rainfall (mm)	Proportion of ground water to surface water (in terms of area covered)	
		1974 – 75	1999 – 00
North Coastal Andhra	1111.0	0.1	0.1
South Coastal Andhra	981.0	0.2	0.3
Coastal Andhra	1024.0	0.1	0.3
Rayalaseema	689.0	0.7	2.4
South Telengana	817.0	0.4	2.8
North Telengana	1036.0	0.4	2.7
Telengana	939.0	0.4	2.8
State	942.0	0.3	0.9

Source: S. Subrahmanyam (2002).

In addition, there are very large differentials in access to assured irrigation across districts in the state. A remarkable feature of the state is that districts with higher normal rainfall are also those more likely to have higher levels of assured irrigation. The table below show the extent of irrigation and rainfall in the different districts. It is evident that several districts are substantially below the state average of 40 per cent irrigated area, which is also generally perceived to be the minimum extent required for the stabilisation of agriculture. Of these, some districts are also those with the lowest extent of normal rainfall. Anantapur stands out in this regard, as having the lowest extent of irrigation as well as the lowest annual rainfall. But other districts such as Kurnool, Cuddapah, Mahbubnagar and

Rangareddy also have low rainfall and grossly inadequate irrigation facilities. Districts like Adilabad have more rainfall but very low spread of irrigation. Further, districts where cultivators rely disproportionately on groundwater have provided less certain irrigation because of the lack of replenishment of groundwater and the declining water tables in many areas. At the same time, assured water in the command areas does not encourage water conservation, especially with a flat charge per acre for water use.

It is evident that the conjunctive use of surface water and ground water must be promoted in a systematic way which will conserve both, and allow for wider access to more cultivators. Also, it is important to rectify the existing imbalance between districts and regions as to availability of irrigation.

Table 5.2: Irrigated area by district

District	Per cent		
	Per cent area irrigated	Per cent under surface water irrigation	Normal rainfall per year (mm)
Anantapur	14	3.6	521
Adilabad	14	4.7	1046
Mahbubnagar	20	2.3	754
Kurnool	20	10.1	630
Rangareddy	25	1	812
Medak	32	4.1	959
Vishakhapatnam	35	23.1	1085
Prakasam	35	16.9	752
Cuddapah	36	6	695
Khammam	40	22.2	1045
Nalgonda	40	16.9	742
Chittoor	41	6	908
Vizianagram	44	38.2	1161
Warangal	57	14.3	1049
Guntur	58	49	890
Srikakulam	59	52	1086
East Godavari	64	50	1160
Krishna	64	53.4	1029
Nizamabad	65	18.7	1089
Karimnagar	66	24.7	953
West Godavari	75	45.2	1076
Nellore	77	44.8	981
Total AP	40	20.4	925

Source: Groundwater Department, GoAP, 2002

Live rivers contribute only around 8 per cent of the surface water sources, with the remainder coming from canals and tanks. However, the availability of surface water has declined significantly in recent years, as evident from Chart 1. Therefore, access to surface water has become even more limited than earlier. There are several important problems with respect to surface water irrigation sources:

- the uneven spread of large irrigation schemes, such that most of the state does not have access to river or canal water;
- the historical neglect of particular areas, especially the districts of Anantapur, Kurnool, Cuddapah, Chittoor, Rangareddy and Mahbubnagar;
- the neglect of large/medium tanks and other traditional water sources, especially in Telengana which previously had an extensive and well connected system of tanks and ponds;
- in the canal irrigated areas, inadequate allocation for Operation and Maintenance (O&M) and management problems leading to low recovery of water charges;
- lack of incentives for saving water.

The most serious problems with respect to irrigation relate to the growing difficulties of accessing sufficient groundwater, the high costs for farmers associated with reliance on borewells, the tendency towards over-exploitation of groundwater which prevents adequate recharge and causes existing wells to go dry. The growing use of groundwater is inextricably linked with the cropping pattern, and reflects the shifts in cropping pattern towards more water-intensive crops even in areas without assured irrigation, which therefore requires accessing water through digging borewells. While farmers cannot be faulted for trying to shift towards more apparently profitable crops, and towards cash crops (especially when they have cash outlays to make such as purchased inputs and debt repayments) it is true that this system breeds a collective irrationality because of which all farmers are worse off.

It is incongruous that groundwater effectively has become privatised even though the externalities in its use are, if anything, even greater than for surface water. When one farmer digs a borewell on his/her own property, effectively a social resource is being extracted and the availability of groundwater for other farmers in the neighbouring area is thereby reduced. At the same time, farmers who are doing so are undertaking substantial expense towards digging borewells, etc. without adequate knowledge of the water resources available. In many areas the Commission visited, farmers complained that their borewells had gone dry, and several had incurred large debts for digging more borewells in the desperate search for water.

In this context, the implementation of the WALT Act has had mixed effects. On the one hand, it has had some positive effects in that it probably reduced over-exploitation of groundwater in conditions when the cumulative effect of inadequate rainfall and past overuse had made it absolutely to control and regulate such use. But it does not really control the extraction of groundwater since those who are in possession of functioning wells can continue to overexploit the groundwater. And the implementation of the Act has also affected the ability of many small farmers to access groundwater, thereby providing disproportionate benefits to those who already have functioning borewells. Therefore it is necessary to think of a different system which will ensure more equitable access. The most obvious solution is to go for the public control of groundwater resources with water charges to all farmers who have access, along similar lines as for canal water.

It is also worth noting that micro-watershed schemes, which have been encouraged with substantial resources over the past decade, do not appear to carry much credibility with the farmers. For example, in Anantapur, it was pointed out to the Commission that the district has had hundreds of watershed programmes being implemented, without any significant effect on the water table or on water availability. The basic reason for the apparent failure of many such

schemes is that the climatic conditions were unfavourable – that is, the low levels of rainfall simply did not rain enough to allow for significant water replenishment in many of the watershed areas. However, another problem is that many of these schemes were handed over to contractors and the local community had very little control over them or over the resources that had been provided, and therefore leakages were substantial. However, the evidence is mixed. There are some success stories where NGOs participated as implementing agencies. While the state government will continue to spend a substantial amount of money on these schemes under Centrally sponsored schemes, the past practice has been to spread the resources thinly to cover a larger number of watershed, instead of spending intensively on a fewer watersheds, which may be more effective. Such works can be taken up under the employment guarantee scheme as well.

The state government has provided free power for agricultural users, which has provided relief to farmers in a period of agrarian crisis. However, the Commission received a number of complaints regarding the power supply, including erratic supply, supply for too few hours at night, irregular voltage with high fluctuations causing transformers to burn. There were also numerous requests to regularise the new connections which have come up since the free power policy was announced. Agricultural workers also requested free power for their domestic consumption, up to 50 units per month. Clearly, many of these are valid requests. It should be noted, however, that if the state government does implement the policy of public takeover of borewells, then the free power supply would become redundant since the government would cover all the costs of providing water, and levy an appropriate water cess for all water users.

II. Recommendations

For surface water resources:

1. There must be an emphasis on equity in the spatial distribution of surface water resources as far as possible. Therefore, in order to bridge the existing inequities, the immediate priority in new irrigation schemes must be to provide resources for irrigation-deficient and low-rainfall areas which have been neglected in the past.

2. The conjunctive use of surface water and ground water must be stressed. For this, the state government must develop a water policy which treats all these resources together in an equitable way, and draw up schedules of water use.

3. Top priority must be given to the cleaning, repairing, maintenance and development of tanks and ponds. This must be done in mission mode on an urgent basis, possibly using labour resources that will be made available under the Employment Guarantee Scheme of the central government. The plan must be to restore existing tanks and develop new tanks without jeopardising supplies to the old tanks. Further, feeder channels to many tanks have been cut or destroyed; these must be restored. Wherever possible, water from large irrigation schemes should be made available for feeding existing tanks. There should be an inventory of traditional water bodies which must be continuously updated.

4. There is need for careful evaluation of large irrigation projects with assessment of **all** future costs, including correct estimation of the impact upon local populations, likely displacement, and related costs such as those of power generation for particular projects. In addition, large projects must be chosen only after balancing the relative needs of different regions and giving neglected regions first priority. It should be noted that major irrigation projects may be important for some dryland areas, but these projects have high costs and long

gestation periods. Wherever possible, options should be explored to have more small irrigation projects (instead of more expensive very large projects), which will involve lower costs and reduce displacement.

5. Water management and efficiency of water use are important concerns across the state, and even in areas with assured water supply in the command areas. The centrality of this must be emphasised, because even if all the potential under major, medium and minor irrigation is exploited, agriculture in the state will continue to have water problems even after 20 to 30 years unless water management and efficiency are not improved. For this, the following should be undertaken:

- Some additional resources of the state government must be directed towards developing, disseminating and providing incentives for water conservation techniques.
- **The water cess collection should be based on volumetric measurement of the water used, rather than on the area under cultivation.** Further there should be escalating rates after a certain basic volume. This will help to conserve water use. Tamper-proof meters should be supplied for this purpose in the command areas.

6. In the canal irrigated areas, the carry over storages as decided by various tribunals should be maintained by the state government, and based on that the operational plan for release of water for irrigation must be known to farmers well before each crop season.

7. It is important to ensure the participation of farmers and their representatives in the water management systems that affect them. The Andhra Pradesh Farmers Management of Irrigation Systems Act, 1997 (APFMIS Act) made the formation of Water Users' Associations mandatory for the management of irrigation. This was designed to bring greater accountability in irrigation department as well as a sense of ownership of the management systems among

farmers. More than 10,000 Water Users' Associations have been formed. However, it is generally felt that the working of these associations is not satisfactory, so efforts must be made to improve their legitimacy and functioning, and to involve all the stakeholders including women farmers.

For groundwater:

For immediate action:

1. While in the medium term the state government should aim for public control over groundwater, in the interim, there must be active involvement of the agricultural extension services and the District Water Management Agencies in recharging groundwater with rainfed water and in techniques of water conservation.
2. The government should immediately begin the process of registration of all borewells in the state.
3. Extension services must also focus on reviving and developing crops and cultivation practices suitable for rainfed agriculture and adverse irrigation conditions.
4. With regard to micro-watershed programmes, the focus should be on ensuring adequate resources to cover completely the watershed taken up, even though this may imply fewer such projects. This is important to ensure success in at least some projects.
5. In allocating resources towards such schemes in future, it is important to ensure that contractors are avoided, and that the local farmers and community are able to exercise some control, either through panchayats or through the

watershed committees. Watershed works can also be taken up under the Employment Guarantee Scheme.

Medium term proposal:

1. It has already been noted that groundwater use is currently irrational because it had effectively been privatised. Therefore, in the medium term **the state government should aim for the public takeover of groundwater resources. All the existing borewells would have to be taken over, after paying appropriate compensation to the current owners. All new borewells would be dug by and be owned by the state government. The AP Irrigation Development Corporation (APIDC) should be revived and could made into the nodal agency for the management of groundwater. Thereafter, water would be provided from the borewells on payment of water cess on the basis of volumetric measurement through tamper-proof meters, at the same rates as those applicable for command area farmers.** The local management of the water would have to be managed by an appropriate local agency. This would regulate the use of groundwater, provide more democratic access, and reduce the costs incurred by farmer for digging of borewells.

It should be noted that WALTA 2002 already makes the provision for such control in its Clause 6. (a) and (b) which specify that the Authority set up by the state government shall perform the following functions: “promote water conservation and enhancement of free cover in the state, and regulate the exploitation of ground and surface water in the state”.

For power supply:

1. Efforts should be made to increase power supply for agricultural purposes for a longer period every day. There should be systematic efforts to reduce problems

of erratic supply and irregular voltage, to ensure continuous and stable supply for a minimum of nine hours, preferably in the daytime.

2. The state government may consider a scheme of regularising the existing rural connections up to a certain date and declaring all future connections to be invalid unless registered by the appropriate authority.

3. The state government should make efforts to improve the quality of the power equipment supplied to farmers through appropriate regulation. Extension services should assist farmers in the proper use of such equipment.

4. Transmission & Distribution losses and inefficiency can be reduced with better management practices in the power sector, including more democratic and accountable functioning of the generating and distributing agencies. It is usually the case that the residual use is attributed to agriculture since this sector does not have meters.

5. Free power up to 50 units per month should be provided to all rural domestic users in BPL households.