

सामयिक निबन्ध

Occasional Paper - 41

जोखिम संकल्पना : कृषि क्षेत्र में जोखिमों और  
अनिश्चिताओं तथा ऋण की भूमिका का अध्ययन

RISK PHILOSOPHY: AN ENQUIRY INTO RISKS  
AND UNCERTAINTIES IN AGRICULTURE AND  
THE ROLE OF CREDIT

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डॉ. एन.ए. मुजुमदार  
DR. N.A. MUJUMDAR

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आर्थिक विश्लेषण और अनुसंधान विभाग  
Department of Economic Analysis and Research  
राष्ट्रीय कृषि और ग्रामीण विकास बैंक  
National Bank for Agriculture and Rural Development  
मुंबई  
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Mumbai

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2005

## **लेखक**

डॉ. एन.ए. मुजुमदार  
46-48, इसप्लांडे मॅशंस,  
महात्मा गांधी रोड,  
मुंबई - 400 001.

## **Author**

Dr. N.A. Mujumdar  
46-48, Esplanade Mansions,  
Mahatma Gandhi Road,  
Mumbai - 400 001.

इस निबन्ध में उल्लिखित तथ्य और व्यक्त विचार लेखक के हैं, राष्ट्रीय बैंक इसके लिए जिम्मेदार नहीं हैं  
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राष्ट्रीय कृषि और ग्रामीण विकास बैंक, आर्थिक विश्लेषण और अनुसंधान विभाग, चौथी मंजिल, 'सी' विंग, प्लॉट नं सी-24, 'जी' ब्लॉक, पो.बॉ. नं 8121, बान्द्रा-कुर्ला कॉम्प्लेक्स, बान्द्रा (पूर्व), मुंबई - 400 051, द्वारा प्रकाशित  
Published by the National Bank for Agriculture & Rural Development, Department of Economic Analysis & Research, 4th Floor, 'C' Wing, Plot No. C-24, G-Block, PB No. 8121, Bandra Kurla Complex, Bandra (East), Mumbai - 400 051.

कर्नाटक ओरियोन प्रेस, फोर्ट, मुंबई - 400 001 द्वारा मुद्रित ।  
Printed at Karnatak Orion Press, Fort, Mumbai - 400 001.

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## **PREFACE**

This paper, prepared in response to an invitation from NABARD, seeks to examine some basic issues relating to risks in agriculture and the role of credit in tackling these risks. Banking sector reforms introduced on the 1990s as part of the process of liberalisation and globalisation of the Indian economy, sought to merely mimic the concepts and models of risks in developed countries like the U.S.A. Mechanistic transplantation of models from the developed countries including the Basle norms, on to the Indian soil led to disastrous consequences for agricultural growth in the 1990s. The relative magnitude of the flow of credit to agriculture shrank and the interest rate regime which appeared to have been designed to pamper the private corporate sector openly discriminated against the agricultural sector. Worst of all, there was a sizeable disenfranchisement of small farmer borrowers. No wonder agricultural growth decelerated sharply from 4.7 per cent in the Eighth Five Year Plan to only 2 per cent in the Ninth Plan. The 1990s was a lost decade for agriculture.

It appeared that public sector bankers suddenly discovered that agricultural sector was a "high risk" business and shied away from lending to agriculture. Were not Non-performing Assets (NPAs) high in agriculture? Hence a risk premium has to be built into the lending rates to agriculture. This was the rationale that policy makers in the 1990s provided for the relatively high lending rates for agriculture.

This paper seeks to show that the above approach to assessment of risk in agriculture is flawed both in theory and practice. Both the risk perceptions - the farmer looking at his individual farm business and the banker looking at the individual farmer as a potential borrower - are perceptions at the micro level. Imported models of risk assessment and management, including BIS models focus on these micro perceptions. In contrast, in a developing economy like that of India it is necessary to adopt a holistic approach to assessment of risks in agriculture; only such an approach can pave the way for a meaningful assessment of risks and also for finding practical solutions to minimize the incidence of these risks. This brings us to the realm of risk philosophy. Looked at from this perspective, there is a need to super-impose on the two micro perceptions of risks mentioned above, a macro perception of policy makers whose explicit objective should be to reduce the incidence of

risk in the agricultural sector as a whole; and furthermore use credit, inter alia, as an instrument to achieve this overall objective. In other words, the risk models we have imported from developed countries, including Basel Models, take risk as a given at any point of time and then seek to tackle such risks. It is the contention of this paper that in the Indian context, it should be the medium - term objective of monetary and credit policies to seek to change the risk profile of the agricultural sector itself, and credit policy should become an important ingredient of the macroeconomic management package designed to change eventually the risk profile of agriculture. Credit should thus be made to play a dual role of growth-enhancement and risk-reduction. For instance, irrigation of any variety, that is digging a well or even watershed development, provides an ideal example of this dual role. This about sums up the risk philosophy appropriate to the India-specific situation.

Risk philosophy, which provides the broad matrix within which rural credit policy or risk management policy needs to be formulated, should be firmly anchored in the development imperatives. First, ensuring a critical minimum of 4 per cent agricultural growth in the coming years can alone sustain an 8 per cent GDP growth in the medium term as envisaged in the Tenth Plan. Secondly, the risk-reducing role of credit should be factored into the rural credit policy including interest rate policy. This provides the rationale for concessional lending to certain avenues of agricultural development like irrigation. Thirdly, the term "agriculture" has to be construed in an extended sense which would, of course, include allied sectors like livestock, fisheries and forestry. In addition, investment avenues which would go some way towards raising the production capabilities of agriculture should also be covered suitably. The concept of investment "in agriculture" should be broadened to include "investment for agriculture." This holistic risk philosophy lends a new perspective to rural lending policy as also to risk management by banks and other lending institutions.

The rural credit system would have to take on, as it were, a new avatar not only in terms of diversification of loan portfolio but also in terms of the credit delivery mechanism. Rural credit institutions would have to stretch their operations beyond the conventional crop loans; facilitating broad-based decentralised growth in the rural sector should be their focus. To reduce the incidence of repayment risks, the micro finance segment has to integrate with the mainstream rural finance sector by forging appropriate linkages of banks/cooperative with SHGs and NGOs. Transactions with

Panchayat Raj institutions would multiply. Good governance will be an important input in the process of upgradation of efficiency of all financial institutions engaged in rural development. Following received wisdom, if risk management is viewed mechanistically and in isolation, as we seem to be doing now, it is reduced to a barren concept incapable of generating any policy inputs. In contrast, viewed holistically as outlined in the risk philosophy propounded by this paper it acquires a new meaning and significance. Perhaps the Reserve Bank of India (RBI) and NABARD could consider evolving a new set of Guidelines for all financial institutions involved in rural development. These Guidelines, should cover not only risk management in agriculture but also rural lending in general, indicating a hierarchy of preferred sub-sectors, or segments, and also interest rate policy for different segments. Notwithstanding the IMF/World Bank theology, we need not be apologetic about offering interest rate subsidies to select, deserving sub-sectors. Risk management and growth-enhancement policies should thus be regarded as mutually supportive.

The purpose of this paper would be served if it provokes further thought and action, among academicians and policy makers, on the current approach to risk management in agriculture.

Finally, I must express my sincere thanks to Shri K.V. Raghavulu and Dr. T.N. Jha of NABARD for the cooperation they extended to me during the course of completion of this assignment.

**N.A. Mujumdar**

## **EXECUTIVE SUMMARY**

1. Banking sector reforms introduced in the 1990s as part of the process of liberalisation and globalisation of the Indian economy sought to merely mimic the concepts and models of risks in developed countries like the U.S.A. without taking into account the India-specific socio-economic milieu. Mechanistic transplantation of risk models from the developed countries and application of Basel norms, on to the Indian soil led to disastrous consequences for agricultural growth in the 1990s. The relative magnitude of the flow of bank credit to agriculture shrank and the interest rate regime openly discriminated against the agricultural sector. Worst of all, there was a sizeable disenfranchisement of small farmer borrowers, this was a serious indictment of the reform regime. No wonder agricultural growth decelerated sharply from 4.7 per cent per year in the Eighth Five Year Plan to only 2 per cent in the Ninth Plan. Thus the 1990s was a lost decade for agriculture.
2. It appeared that basking in the reflected glory of the received concepts and models of risk, public sector bankers suddenly discovered that agricultural sector was a "high risk" business and shied away from lending to agriculture. Were not Non-performing Assets (NPAs) high in agriculture? Hence a risk premium had to be built into the lending rates to agriculture. This was the rationale that policy makers of the 1990s provided for the relatively high lending rates for agriculture. For example, even a small farmer had to pay, till more recently, 12 per cent interest on his bank borrowings, while a highly rated corporate could raise money from banks at 6 or 7 per cent.
3. Against this background, this paper seeks to show that the above approach to assessment of risks in agriculture is flawed both in theory and practice: in theory, because the received concept of risk does not even seek to capture the special circumstances of developing countries, much less the India-specific situation. In practice, because the blind application of the borrowed concept to policy measures proved to be counter productive.
4. Both the risk perceptions received from the developed economies - the farmer looking at his individual farm

business and the banker looking at the individual farmer as a potential borrower - are perceptions at the micro level. Imported models of risk assessment and management, including BIS models, focus on these micro perceptions, which are of course, appropriate to situations in developed economies. In contrast, in a developing economy like that of India, it is necessary to adopt a holistic approach to assessment of risks. Only such an approach can pave the way for a meaningful assessment of risks and also for finding practical solutions to minimise the incidence of these risks. This brings us to the realm of risk philosophy. Looked at from this broader perspective, there is a need to superimpose on the micro perceptions mentioned above, a macro perception of policy makers whose explicit objective should be to reduce the incidence of risk in the agricultural sector as a whole; and furthermore use credit, *inter alia*, as an instrument to achieve this overall objective.

5. Risk models which we have imported from developed countries take risks as given at any point of time and then seek to cover such risks. In contrast, in a developing economy like that of India, it should be the medium-term objective of monetary and credit policies to seek to change the risk profile of the agricultural sector itself; and credit policy should become an important in-gradient of macroeconomic management package designed to eventually change the risk profile of agriculture. Credit, both short-term and long-term, should be viewed, in this context, as both a growth enhancing and risk-reducing instrument. Credit to support investment in irrigation of any type is a case in point. In view of this dual role of credit, there is a strong case for building an element of concessionality in lending rates to agriculture. This about sums up the risk philosophy appropriate to the Indian situation.
6. Indian policy makers of the 1990s whose expertise in development economics appears to have stemmed largely from IMF/World Bank market theology, shunned directed lending and interest rate subsidies. They seem to have over looked the basic fact that agriculture in developed countries like the U.S.A. or OECD countries is heavily subsidised in a variety of ways, with both domestic, export and financial subsidies. What is more, these large subsidies continue to persist even in the W.T.O. regime. We need not be therefore apologetic

about subsidising agriculture and extending credit to agriculture at concessional rates of interest.

7. The configuration of circumstances when the economy is in the third year of the Tenth Plan (2002-2007) is such that priority sectors, including agriculture, would continue to play a critical role in India's future growth and development. There are at least three reasons why priority sectors would continue to occupy a pre-eminent position on the development agenda: imperatives of food security, of employment expansion and growth of non-farm activities which are linked directly or indirectly to agricultural growth and rural development. The sustainability of a high GDP growth of 8 per cent per year envisaged for the next decade is contingent upon agriculture posting a growth of 4 per cent per year, in sharp contrast to a growth of only 2 per cent recorded in the Ninth Plan. Such acceleration of agricultural growth needs to be supported by larger flow of bank credit. This fact needs to be dinned into ears of public sector bankers who seem to be deluded by the grandeur of globalised banking. They should realise that lending to agriculture is as important as lending to the three "C"s - Corporate elites, Consumer durables and Capital market related activities. Although UPA Government's recent initiatives in the area of rural credit have gone some way towards changing the mindset of bankers, there is merit in suggesting that RBI should keep harping on the theme.
8. Secondly, the term "agriculture" should be construed in an extended sense which would, of course, include allied sectors like livestock, fisheries and forestry. In addition, investment avenues which would go somewhat towards raising directly or indirectly the production capabilities of agriculture should also be covered suitably. The emphasis should be on "Capital formation for Agriculture" in contrast to our conventional approach of "Capital Formation in Agriculture".
9. Raising rural income levels would involve not only higher agricultural growth but also raising the production levels of products like milk, meat, fish, poultry, vegetables and fruits. Besides promoting diversification of agriculture, there is the need for value addition for increasing rural employment and incomes. Post-harvest activities such as storage, transportation, processing and marketing become important in this context.

10. If such lending to agriculture and related sectors has to be on an adequate scale and viable, the rural credit system has perhaps to take on, as it were, a new avatar both in terms of loan portfolio and the credit delivery mechanism. Public sector banks (PSB's) would need to look beyond the conventional crop loans, important as they are, to areas linked directly or indirectly to agricultural and rural development. Issues relating to replenishing water resources in arid and semi-arid regions, utilisation of waste lands, organic farming with organic seed and compost preparation need to be considered as "inclusive".
11. Looked at from this holistic view-point, risk philosophy lends a new perspective to rural lending policy as also to risk management by banks and other lending institutions. Risk philosophy, outlined here, provides the broad matrix within which rural credit policy should be shaped and it should be firmly anchored in development imperatives.
12. Reserve Bank of India (RBI) jointly with NABARD could set up a Working Group to evolve, in the light of this risk philosophy, appropriate Guidelines for rural lending by banks, cooperative credit institutions and RRBs. The Guidelines, should, among others, identify agriculture and related rural sectors or subsectors to which credit, short, medium, and long-term needs to be extended; there should be prioritisation among these sectors and subsectors for the purpose of concessional lending - and the preferred mode of lending directly or through NGOs, SHGs or Panchayat Raj institutions - should also be specified.
13. The Guidelines should also stress the pro-active role that banks and other rural lending institutions should play in translating the enormous potential demand for institutional - credit that exists in the rural sector into effective demand. Bankers should explore and identify such potential demand for credit and assist in giving a concrete shape to such demand by converting it into viable credit-worthy projects. Many of the non-conventional sectors or sub-sectors identified in this paper warrant such initiatives by bankers. Rural credit expansion will have to be, as in the past, more supply-led and not so much demand-derived.

14. In the immediate future, rural lending should be water-centric. In fact, the concept of food security has been recently widened to include access to adequate water. Three interconnected programmes assume prominence in this context: watershed development programmes, renovation of all the water bodies linked to agriculture, which have presently fallen into disuse, and rain water harvesting and conservation technologies. The thrust of lending policy in the coming years, should be on these and related programmes, which, taken together, would go a considerable way towards reducing the vulnerability of Indian agriculture to risks of drought, and thereby enhancing the sustainability of agricultural production at high levels and also food security. Among the related programmes is the promotion of water use efficiency.
15. NABARD with its vast network of regional offices in all the States headquarters and its offices in most of the districts is ideally suited to take initiatives in providing a big boost to such water-centric programmes. NABARD, in collaboration with State Governments and Panchayat Raj institutions, could organise the preparation of a blue print for micro watershed development and related projects in all the districts in the arid zone. The year 2006 could be designated as the "Year of Water Resource Regeneration" for the purpose of implementing simultaneously this cluster of projects. NABARD could also coordinate the financing of these projects, by involving wherever suitable, public sector banks, cooperative credit institutions and RRBs. In a way, NABARD could underwrite the financing of these projects in the sense that any shortfalls in the resources could be met by it either directly or indirectly. Such a major thrust to water-centric programmes is essential for changing risk profile of agricultural sector, besides encouraging economic activities in the allied sectors in the rural areas.
16. While production risk in agriculture could be reduced through the water-centric programmes as discussed in (14) above, the repayment risk faced by the rural lending institutions could be reduced through evolving a new architecture of the rural credit delivery mechanism. This is the second dimension of the new avatar of the rural credit system. Both RBI and NABARD have been, in recent years, spear-heading the promotion and linkage of SHGs to the banking system through refinance support and other pro-active policies. The

experiment of micro finance through the conduit of SHGs has shown that transaction costs could be reduced drastically and repayment rates could be as high as 90 per cent. The rural credit system must move towards spreading this model of financing and spreading it fast.

17. Regurgitating the risk models and other related material on risk management liberally dished out by BIS is of little help in the Indian situation. What is required is a holistic approach to risk assessment and management in Indian agriculture; and this approach translates itself into risk philosophy which this paper has sought to outline.

# **Section I**

## **Risk Philosophy :**

### **Risks and Uncertainties in Indian Agriculture**

#### **Introduction**

Historically, Indian agriculture has been subject to various types of risks and uncertainties, the most prominent of which is drought. It is not surprising that the first generation textbooks on the Indian economy described graphically Indian agriculture as a gamble in monsoons. Although we have today moved quite a distance away from the situation of yester years, with the net irrigated area forming nearly 40 per cent of the net sown area, the basic threat of failure of monsoons continues to haunt the Indian economy. The most recent drought of 2002-03 when agricultural production declined by 7 per cent demonstrates this point. Apart from drought, there are other sources of risk in agriculture like devastating cyclones, floods, plant diseases or pests or even a sudden drying up of tubewells. In addition to production risks, there is the price risk faced by the farmer: either the prices of farm inputs may rise suddenly, or prices of farm output – or products – may decline sharply, or both. These and other risks in agriculture which we would discuss later, affect adversely profitability of farming business and hence has important implications also for bankers or lenders to farmers in general. Analytically it is useful to discuss, separately, risks faced by individual farmer on the one hand and risks in lending to agriculture as perceived by bankers on the other. Although these are two sides of the same coin, as it were, it is useful to discuss the two facets separately, since we seek to analyse the role of credit in tackling risks in agriculture. There is yet another dimension to the whole issue: the perception of bankers of risks in agriculture may not be necessarily and always rational, as we shall analyse subsequently. Nonetheless such, perceptions do impact both the availability and cost of credit to the farmer. Both these are perceptions at the *micro* level: the farmer looking at his individual farm business and the banker looking at the individual farmer as a potential borrower.

The difficulty with the Indian monetary and credit policy makers of the 1990s, when financial sector reforms were introduced as part of the process of liberalisation and globalisation of the Indian economy, was that they sought to mimic the concepts and models of risk in the developed countries like the U.S.A. or Australia. Hence

the story of risks in agriculture ended here. Mechanistic transplantation of models from the developed economies on to the Indian soil has led to disastrous results, for agricultural growth, as we will spell out later.

In a developing economy, it is necessary to adopt a holistic approach to assessment of risks in agriculture; only such an approach can pave the way for a meaningful assessment of risk and for finding practical solutions to minimize the incidence of these risks. It is here that we move into the realm of what can be broadly described as risk philosophy. The measures taken by the monetary and credit policymakers in the 1990s were not, alas, grounded in such a risk philosophy appropriate to the Indian socio-economic milieu. Basically, there is a need to super-impose, on the two *micro* perceptions of risks mentioned earlier, a *macro* perception of policy makers, whose objective should be to reduce the incidence of risks in the agricultural sector taken as a whole; and furthermore, use credit, *inter alia*, as an instrument to achieve this overall objective. In other words, the risk models we have imported from developed countries, including the Basel models, take risks as a *given* at any point of time and then seek to cover such risks. In contrast, in a developing economy like that of India it should be the medium-term objective of monetary and credit policies to seek to change the risk profile of the agricultural sector itself; and credit policy should become an important ingredient of the macroeconomic management package designed to eventually change the risk profile of agriculture. Credit, both short-term and long-term, should be viewed, in this context, as both a growth-enhancing and risk-reducing instrument. Credit to support investment in irrigations of any type is a case in point. This about sums up the risk philosophy appropriate to the Indian situation.

In the banking sector reforms of the 1990s such *macro* perception of risk was conspicuous by its absence. The whole approach to assessment of risks in the agricultural sector and consequently to shaping agricultural lending policy was faulted because the monetary and credit policy makers of the 1990s were soaked in the market theology of the IMF and World Bank. Directed lending is bad and hence should be abhorred. All subsidies, including interest rate subsidies, militate against market forces and hence abolish interest rate subsidies to agriculture. Financial sector reforms, taken as a whole, created an adversarial environment for rural credit, giving a misconceived impression, that lending to agriculture or priority sectors in general is a high-risk business. No

wonder bankers, particularly public sector bankers, shied away from lending to agriculture, thus converting the 1990s into a lost decade for agriculture.

I have analysed *in extensio* the adverse impact of financial sector reforms on rural credit elsewhere providing statistical and other evidence in support of this main theme.<sup>1</sup> Here I will be content with merely utilising the conclusions of the analysis.

'Monetary authority's approach to banking reforms clearly reflect an amateurish appreciation of the relevance of these reforms to development. We need to look at the following four areas of reform: Basel Norms, Statutory Liquidity Ratio requirements, Non-performing Assets (NPAs) and Subsidies.

First, during this phase of reforms implementing the Basel norms became almost the sole preoccupation of RBI. The policy makers appeared to emphasise that ensuring capital adequacy, and provisioning norms are all what the banking reforms about. The hurry with which RBI set out to implement these two norms gives the impression that making the Indian banking system Basel-compliant was regarded as the *sum-mum bonum* of banking reforms. In the process, the ground realities of the Indian rural sector were drowned by rhetorics of reforms. RBI had neither the time nor the inclination to look at the rural credit delivery system, the health of which was allowed to deteriorate. Supply-led rural credit expansion, promotional initiatives, proper appraisal, monitoring and follow-up of rural loan projects – all these ingredients of innovative rural credit policy pursued since the latter part of 1950s, following the recommendations of Report of the All India Rural Credit Survey, 1954, were given the go by.

Second, risk perceptions of bankers is, again, is a relative concept. Inspired by market theology, RBI suddenly discovered that Government of India should begin to raise resources from the banking sector at market related interest rates, with the result that yields on Government securities soared, at one point, to 14 per cent. Such an attractive yield on a zero-transaction cost and zero-risk instrument like the Government security tempted public sector bankers to invest massively in Government securities well beyond the Statutory Liquidity Ratio (SLR) requirement. It may be recalled that following the recommendation of the Narasimham Committee on Financial Sector Reforms (1991) the Statutory Liquidity Ratio (SLR) was reduced to 25 per cent of Net Demand and Time Liabilities

(NDTL). Ironically, the investment-deposit ratio of the banking system recorded a quantum jump from a required ratio of 25 per cent of NDTL to 38 per cent or even 40 per cent during the 1990s. In other words, investment in Government securities crowded out priority sectors including the agricultural sector, from the banking systems resources.<sup>2</sup>

How can one expect bankers to lend to a small farmer at say 12 per cent or at even lower rate when one can realise a 14 per cent return by investing in a zero-risk instrument? The phenomenon of excess holding of Government securities continues to plague the utilisation of banking sector resources of public sector banks (PSBs) even today, with the investment – deposit ratio touching 44 per cent in September 2004. In absolute terms, such excess holdings had reached a staggering figure of Rs. 2,67,328 crore at end March 2004.<sup>3</sup> In other words, by providing such an attractive avenue for deployment of banking sector resources, through flawed interest rate policy, funds which would otherwise have supported productive sectors like agriculture were siphoned off to support Government consumption.

Both these reforms had had the net effect of making a dent on the resources potentially available for deployment to priority sectors including agriculture. Basel norms required earmarking of resources for capital adequacy and provisioning. Of course, excess investment in Government Securities was technically voluntary but prompted by explicit interest rate policy. Also, in the bankers' mind, priority sectors were relegated to the second order priority.

Third, Non-performing Assets (NPAs). Provisioning norms made the bankers suddenly risk conscious; and priority sectors accounted for 50 per cent of the total NPAs of public sector banks in 1995. No wonder priority sectors came to be regarded as “untouchable” by PSBs. How far NPAs could be treated as a true reflection of intrinsic risks in the concerned sector? We will examine this issue in depth later. At this stage the only point that needs to be underlined is that there are factors other than intrinsic risks which shape NPAs. For instance, the historical baggage inherited by the rural credit system should not be conveniently forgotten. The reference here is to the erosion of repayment ethics by the “loan melas” of yester years and the “write-offs” of rural loans by some populist State Governments. Policy makers of the 1990s lacked this historical perspective. Ultimately it is such episodes in financial history which shape the NPAs of banks and cooperative credit institutions. We will see later

how banks have been able subsequently to reduce drastically incremental NPAs in the priority sectors, by proper appraisal and effective monitoring of rural lending. Governance is also an important element which shapes NPAs.

Finally, Subsidies: Indian policy makers of the 1990s whose expertise in development economics stemmed from the IMF/World Bank theology seem to conveniently over look the basic fact that agriculture in developed countries like the U.S.A. and OECD countries is highly subsidised in a variety of ways, both domestic and export subsidies. For instance, global agricultural subsidies are estimated to add up some \$ 360 billion annually or nearly a billion dollars a day. Of the total, 80 per cent is accounted for by OECD countries.<sup>4</sup> These subsidies continue to persist even in the current WTO regime.

In many of these developed countries financial subsidies are also extended to facilitate flow of cheaper credit to agriculture and small enterprises.<sup>5</sup> More concretely, take the case of U.S. farm credit interest rates. In July-September 2004, the rates were as follows: interest on new farm loans averaged 7.22 per cent, for operating loans 7.28 per cent for machinery and intermediate term loans, and 6.82 per cent for real estate loans.<sup>6</sup> Compare these lending rates with the 12 per cent interest charged by banks in India till recently to small farmers. When major exporters cry hoarse that interest rates on export credit in India should be comparable to those in say the U.S.A., both the Government and RBI are eager to comply with the request. Of course, IMF/World Bank theology supports this plea. Our farm lobby may not be exactly mute but it has not adequately captured the nuances of interest rate policy. The central point is that we need not be apologetic about subsidizing agriculture and credit to agriculture, notwithstanding IMF/World Bank theology.

It is thus clear that risks in agriculture or perceptions of risks are shaped by a constellation of factors, all of which can be captured by an appropriate risk philosophy. There is no unique textbook formula for measuring risks in agriculture and hence any attempt to build a risk premium into lending rates of agriculture, as we seem to have been doing in the 1990s, is a misconceived exercise, empty of economic meaning.

Risks in agriculture need to be tackled in a more holistic and strategic manner than what is sought to be done by merely mimicking mechanistically banking models of the U.S.A or Australia. In the Indian context, taking a *macro* view of risk, credit should play

a dual role of growth-enhancement and risk-reduction. Changing the risk profile of agriculture itself thus becomes an explicit objective of credit policy. Risk philosophy which provides the broad matrix within which rural credit policy needs to be shaped should be firmly anchored in development imperatives, which will be spelt out later.

Ensuring a critical minimum of 4 per agricultural growth in the coming years can alone sustain a 7 or 8 per cent GDP growth in the medium term envisaged by the Tenth Five Year Plan. It is the business of rural credit policy to facilitate and sustain the required rate of agricultural growth. Secondly, the risk reducing role of credit should be factored into the rural credit policy, including interest rate policy. This provides the rationale for concessional lending to certain avenues of agricultural development. It is thus clear that attempts to build a risk premium into the lending rates to agriculture in the 1990s were flawed both in theory and practice: in theory, because the borrowed concept of risk does not even seek to capture the special circumstances of developing countries much less the India-specific situation. In practice, because the blind application of this concept to policy measures may prove to be counter-productive. Thirdly, the term "agriculture" has to be construed in an extended sense, which would, of course, include allied sectors like livestock, fisheries and forestry. Raising rural income levels would involve not only higher agricultural growth but also raising the production levels of products like milk, meat, fish, poultry, vegetables and fruits. Besides promoting diversification of agriculture, there is the need for value addition for increasing rural employment and incomes. Post-harvest activities such as storage, transportation, processing and marketing become important in this context.<sup>7B</sup>

In addition, investment avenues which would go some way towards raising the production capabilities of agriculture should also be covered suitably. Looked at from this holistic view-point, risk philosophy lends a new perspective to rural lending policy as also to risk management by banks and other lending institutions.

The present Guidelines issued by Reserve Bank of India (RBI) to banks for risk management would perhaps need to be reframed with respect to agriculture and allied sectors in the light of these considerations. Fortunately, more recent policy initiatives, of the United Progressive Alliance (UPA) Government in the area of rural credit as reflected in the National Common Minimum Programme (NCMP), indicate clearly that wisdom is at last beginning to dawn on the contemporary Indian policy makers.

## **Section II**

### **Changing Risk Perceptions of Bankers**

It may be useful to begin the discussion on risks in agriculture and the role of credit with the changes in risk perceptions of bankers; because ultimately it is these perceptions of bankers which shape the mindsets and attitudes of bankers to agriculture. The risk perceptions of bankers, particularly public sector bankers seem to have undergone a perceptible change in the 1990s when the financial sector reforms were introduced as part of the process of liberalization and globalisation of the Indian economy. Historically, the risk perceptions have gone through three distinct phases: first, the post-nationalisation of bank phase extending from 1969 to 1990; second, during the phase of banking sector reforms say from 1990 to 2004; and third, the period subsequent to 2004 when the National Common Minimum Programme (NCMP) was announced by the United Progressive Alliance (UPA) Government. This programme envisages doubling of agricultural credit in the next three years. We will later have occasion to examine whether such changes in perception of risk by bankers were rational, in the sense of being technically justifiable. What is equally important is that all these changes were policy-induced in the sense that the changes reflected bankers' response to the policy measures, taken during the relevant period, by the Government and/or by the Reserve Bank of India (RBI). In this sense, the changes in risk perceptions of bankers were reactive and not proactive. The point that needs to be driven home is that policy measures can create an environment in which changes in bankers perception could take place irrespective of whether the intrinsic technical ingredients of risks in agriculture have remained unchanged or not.

The phenomenal expansion of banking in India in the post-nationalisation period, both in terms of widening and deepening of the banking system, is unprecedented in the history of World banking. Bringing the rural sector, not only agriculture, into the mainstream of modern banking was a stupendous achievement. In this dramatic transformation, both the Government at the Centre and States, the RBI and public sector banks played a crucial role. The techniques employed for extending the reach of banks, the training imparted to the bank personnel involved, and their travails and tribulations - all these have been chronicled by NIBM in an excellent book.<sup>7</sup> There are two important lessons to be derived from this empirical experience, to which the attention of contemporary

banking policy makers needs to be drawn. First, the phenomenal expansion of rural credit witnessed during this phase was essentially supply-led and not demand-derived. There is an enormous potential demand for institutional credit in the rural sector but for translating this potential demand for credit into effective demand, the banker or the credit supplying agencies in general have to do some homework: explore and identify such potential demand, and assist in giving a concrete shape to such demand for credit and credit worthy projects. This task of giving a concrete shape to potential demand is as important as the task of fine-tuning the supply-side of credit. The pro-active role played by banks during this phase in generating effective demand for credit is thus obvious. In sharp contrast, banking sector reforms in the 1990s seemed to have focussed only on the fine-tuning of the supply side while neglecting almost totally the demand side. Secondly, banking officials at that point of time were not being paid princely sums. Those experts who today argue that PSBs are not attracting competent officers because their emoluments are nowhere near those of foreign bankers would do well read the book mentioned above. These pioneering efforts of PSBs ultimately enabled agriculture and priority sectors to claim their legitimate share in the commercial banks' resources. Indian agriculture during this period was exposed to far greater risks than what it is today. This did not deter public sector banks from aggressively lending to agriculture. In fact there is enough documentary evidence to show that the Green Revolution was facilitated, to a considerable extent, by bank credit which enabled a large number of farmers to adopt the new farm technology.

Regarding the second phase, if the rural credit institutions find themselves in a moribund state today, this is largely attributable to the financial sector reforms introduced in the 1990s. In the milieu of the new banking culture fostered by reforms, lending to agriculture or priority sectors generally became unfashionable. The relative magnitude of the flow of credit to agriculture shrank and the interest rate regime which was designed to pamper the private corporate sector openly discriminated against agriculture. Even public sector banks (PSBs) merrily defaulted, for many years during the 1990s, on the credit targets of 18 per cent of net bank credit to agriculture and 40 per cent of net bank credit to priority sectors. The Reserve Bank of India (RBI), which was obsessed with implementing the Basel norms as the main thrust of banking reforms, winked at the defaults. While the priority sector target has been attained during the last couple of years, the target for agriculture continues to remain unattained: lending to agriculture is

around 15 per cent today, as compared to the target of 18 per cent of net bank credit. In the new banking culture, nurtured by reforms, the focus of PSBs was on the three “C”s – namely, Corporate elite, Consumer credit and Capital market related activities. For instance, PSBs had enough resources to extend a bridge loan to enterprises like M.S. Shoes, but they did not have funds to support the production of sugar in Maharashtra. There was an actual disenfranchisement of rural borrowers, the total number of small farmers borrowing from banks declining in absolute terms.<sup>8</sup> For the priority sector as a whole, the number of accounts declined from 349 lakhs in 1991 to 273 lakhs in 2001. This episode reflects the totally changed mindset of public sector bankers during the reform phase.

While this is the status of availability of credit, the story of the cost of credit is equally depressing. While highly rated corporate entities could raise money from banks or PSBs at interest rates as low as 6 or 7 per cent, the small farmer was required to pay a rate of 12 per cent till recently. It was left to the Government of India to reduce the lending rate to small farmers to 9 per cent only in August 2003. The World Bank and IMF continue to peddle their market theology and the RBI's response appeared to be, till recently, those of a suppliant student. A recent World Bank Development Policy Review on India states: “Rural access to finance is further constrained by the inefficiency of rural financial markets, characterised by interest rate “caps” requiring banks to price small loans within a range of 2 per cent above or below the prime lending rate. These “caps” have a perverse effect of rationing credit to small rural borrowers, because banks prefer not to lend at these rates. That drives small rural borrowers to borrow from the informal sector, where money lenders charge exorbitant rates:” Hence the World Bank recommends: “Liberalising interest rates by removing the existing interest rate “caps” for small loans”.<sup>9</sup>

RBI seems to be only too willing to join the chorus “Secondly, there is the issue of stepping up loans to relatively disadvantaged sections of borrowers including small and medium enterprises and the agricultural sector. To many of the borrowers in these sectors it is, in fact, the availability of credit more than the price of credit which is of prime importance. This is especially so because interest rates in informal markets which serve as an alternative to bank finance, particularly in rural areas, are sometimes at usurious levels relative to the formal sector.”<sup>10</sup> One can forgive the World Bank for being innocent of recent financial history of India but what about the RBI?

RBI's neglect of agriculture and the rural sector generally was total during the 1990s: it failed to arrest the deterioration of the health of all the institutions involved in rural credit: PSBs, Cooperative credit institutions and Regional Rural Banks (RRBs) – all of which showed high Non-performing Assets (NPAs). In other words, the financial sector reforms which were transplanted from the so-called Basel norms were ill-conceived and unrelated to the specific socio-economic milieu of the Indian soil, and they succeeded in creating an adversarial environment for rural credit. In fact the credit-deposit ratio of RRBs declined sharply over the 1990s, indicating a reverse flow of funds from the rural to the urban areas. Even RRBs were permitted to invest in the PSU bonds. No wonder, the annual average rate of agricultural growth decelerated sharply from 4.7 per cent in the Eighth Five Year Plan to only 2 per cent in the Ninth Plan. The average annual growth rate of GNP decelerated from 6.8 per cent in the Eighth Plan (1992-97) to 5.6 per cent in the Ninth Plan (1997-2002). I have documented elsewhere in detail how the reforms fad led to the sickness of the rural credit delivery system, as a whole.<sup>11</sup>

It is indeed gratifying to note that the Tenth Five Year Plan endorses my view-point: “It is being evident, however, that the organised financial sector in India is either unable or unwilling to finance a range of activities that are of crucial importance both for growth and development. Agriculture, unorganised manufacturing and services, and various types of infrastructure are instances of such sectors. The recent financial sector reforms have naturally focused primarily on improving the viability and stability of financial institutions without adequately addressing this issue. It is therefore necessary to consider methods of encouraging the financial sector to finance such activities, without impinging on its viability or compromising on prudential concerns.”<sup>12</sup> One thing should be made quite clear: it was not “inability” of banks because the banking system was highly liquid during the 1990s, with the credit – deposit ratio hovering around 50 per cent.

How is it that PSBs discovered suddenly in the 1990s, that agriculture was a “high risk” business, potentially capable of generating high NPAs? This is how charging a high risk premium to agriculture was sought to be justified. In terms of risk ingredient characterising agriculture, there was perhaps no change. If anything Indian agriculture was relatively less exposed to risks in the 1990s than what it was in 1970s. How then one could justify the treatment meted out to agriculture in the 1990s by PSBs?

One can seek the analogy from India's political history. There was a class which later came to be known as "Maculay's Bastards", a group of elite, legally and constitutionally trained, upper-middle class Indian men. The freedom movement was initially confined to this select group.<sup>13</sup> It was Mahatma Gandhi who transformed subsequently this freedom struggle into a mass movement involving farmers and the common man. On the same analogy, we may categorise the three "CS" mentioned earlier as "Basel's bastards". The banking sector reforms and economic reforms in general, seem to have been aimed at pampering the private corporate elite and at providing artificial props to develop the capital market, goading PSBs to involve themselves increasingly, both directly and indirectly, in the capital market and related activities, facilitating external commercial borrowings, and ushering in a low interest rate regime for corporate sector.

In a way, this perversion of priorities of development in terms of focusing on the "Basel's Bastards", crowded out agriculture and priority sectors generally from the banking sector's resources. The ostensible reason for this re-ordering of priorities by bankers was that in terms of risk assessment for provisioning requirements under the Basel regime, as we will discuss later, agriculture came to be regarded as a "high risk" business. And hence building a risk *premia* into lending rate resulted in a relatively higher lending rate for agriculture. Instead of discriminating *in favour* of agriculture, as in the case of even developed countries, the financial system began to discriminate against agriculture. Superceding these developments was the emergence of Government securities, as the high-yielding avenue of investment, with zero-risk and zero-transaction cost. As we have seen earlier, public sector bankers were happy to "flood" the Government securities market with their "surplus" resources after meeting the demands of the three CS. This was the new banking culture nurtured by the banking reforms of the 1990s, which stands in sharp contrast to the culture of the 1970s. We now need, in a manner of speaking, a Mahatma Gandhi in the financial sector to correct these distorted priorities and to redirect financial flows, both investment and working capital, towards reviving agriculture and towards financing a whole range of activities designed to promote decentralised development.

The banking community seems to have suddenly become rather insensitive to credit needs of the rural sector. Take, for example, the document "Banking Industry Vision 2010" produced by the Indian Bank's Association (IBA) in 2003.<sup>13B</sup> This 55-page document devotes

only 3 paragraphs to rural credit (pages 42 and 43). It is unfortunate that this document does not even take cognisance of the problems of rural branches of banks, their inability to meet the target for agricultural credit despite the persisting low credit-deposit ratios. For the IBA, God is in heaven and everything is alright with rural credit. If the document demonstrates anything, it is IBA's ability to mouth empty rhetoric's about market theology "the banking system is expected to re-orient its approach to rural lending. "Going Rural" could be the new market mantra. Rural market comprises 74% of the population, 41% of middle class and 58% of disposable income.... Banks' approach to the rural lending will be guided mainly by commercial considerations in future." This almost reads like a script by Hindustan Lever executives exploring rural markets for their products! In the final phase, happily, the same PSBs which shunned lending to agriculture, have begun to sing a different note after the United Progressive Alliance (UPA) announced in 2004 its target of doubling agricultural credit in the next three years. Now the same bankers are highlighting the excellent repayment performance in the area of priority sector lending: the repayment is more than 90 per cent in the case of Punjab National Bank. Suddenly, there is a flurry of activity, with the many Chairmen of PSBs and Senior Executives being actually on the rural circuit promoting rural credit.<sup>14</sup> One begins to wonder whether these are the same bankers bitten by the Basel norms who shunned lending to the rural sector on the specious plea that such lending would breed higher Non-performing Assets (NPAs). In any case, the new dispensation warrants a total change in the attitudes of public sector banks to rural lending.

### **Section III**

## **Capital Adequacy and Provisioning Norms, and Priority Sectors**

The obsession of policy makers of the 1990s with mechanistic implementation of Basel norms, particularly capital adequacy and provisioning norms, without taking into account India-specific development imperatives has led to false perception of public sector banks of risks in agriculture and lending to agriculture. Credit market is different from a commodity markets where supply of and demand for a commodity determines the price. Credit is a commando instrument the distribution of which across sectors determines the trajectories of growth and development. In the process of implementation of these norms with a messianic zeal, sound or sensible banking fell prey to over-emphasis on forms of banking, at the cost of substance of banking. Implementation of these norms became a sort of fad, perhaps treating this as a quick-fix tool for coping with emerging risks in bank lending.

Let us look at the *rationale* that the Reserve Bank of India provides for implementation of these norms. First, about Capital Adequacy “1.1 with a view to adopting to Basel Committee framework on capital adequacy norms which takes into account to elements of risk in various types of assets in the balance sheet as well as off-balance sheet business and also strengthen the capital base of banks, Reserve Bank of India decided in April 1992 to introduce a risk assets ratio system for banks (including foreign banks) in India, as a capital adequacy measure”.

“1.2 Essentially, under the above system the balance sheet assets, non-funded items and other off-balance sheet exposures are assigned weights according to the prescribed risks weights and banks have to maintain unimpaired capital funds equivalent to the prescribed ratio on the aggregate of the risks weighted assets and other exposures on an ongoing basis.”<sup>15</sup>

Banks were required to maintain a minimum Capital to Risk-weighted Assets Ratio (CRAR) norm of 8 per cent on an ongoing basis upto the year ending 31 March, 1999. With effect from the year ending 31 March 2000 banks are required to maintain a minimum CRAR of 9 per cent on an ongoing basis.

Second, about prudential Norms: “1.1 In line with the international practices and as per the recommendations made by the

Committee on the Financial System (Chairman: M. Narasimham) the Reserve Bank of India has introduced, in a phased manner, prudential norms for income recognition, asset classification and provision-ing for the advances portfolio of the banks so as to move towards greater consistency and transparency in the published accounts.”

“1.2 the policy of income recognition should be objective and based on record of recovery rather than any subjective consideration. Likewise, the classification of assets of banks has to be done on the basis of objective criteria which would ensure a uniform and consistent application of the norms. Also, the provisioning should be made on the basis of classification of assets based on the period for which the asset has remained non-performing and the availability of security and the realizable value there of.”<sup>16</sup>

Banks are required to classify non-performing asset further into the following three categories based in the period for which the asset has remained non-performing and the realisability of the dues: Sub-standard Assets, Doubtful assets, Loss Assets.

Provisions should be made by banks on the non-performing assets on the basis of classification of assets into prescribed categories as mentioned above. Taking into account the time lag between an account becoming doubtful of recovery, its recognition as such, the realisation of the security and the erosion over time in the value of security charged to the bank, bank should make provision against sub-standard assets, doubtful assets and loss assets as shown below:

20 per cent for doubtful asset for which the advance has remained in “doubtful” category for upto one year, 30 per cent for doubtful assets of one to three years, 60 per cent, 75 per cent and 100 per cent for outstanding stock.

The real catch lies in the so-called pricing of loans. To quote RBI again, “9.1 In acquiring assets banks should use pricing mechanism in conjunction with product/geography/industry/tenor limits. For example, if a bank believes that construction loans for commercial complexes are unattractive from a portfolio perspective, it can raise the price of these loans to a level that will act as a disincentive to borrowers. This is an instance of *marginal cost pricing* – the notion that the price of an asset should compensate the institution for its marginal cost as measured on a risk adjusted basis. Marginal cost

pricing may not always work. A bank may have “idle capacity and capital that has not been deployed. While such an institution clearly would not want to make a loan at a negative spread, it would probably view even a small positive spread as worthwhile as long as the added risk was acceptable.”<sup>17</sup>

The net impact of these reform measures on priority sectors was two-fold. First, the size of lendable resources of banks shrank to the extent of funds earmarked for meeting capital adequacy and provisioning requirements. Secondly, the squeeze had to be applied to sectors perceived as of high risk: and as mentioned earlier, priority sectors accounted for 50 per cent of Non-performing Assets (NPAs) of public sector banks in 1995. And further, a risk premium had to be loaded on to the lending rates of such high-risk sectors. Squeeze on credit to agriculture and relatively high lending rate were sought to be justified on the basis of these misconceived concepts. And the rest is history.

## **Section IV**

### **Risk Management by Banks and Agriculture**

RBI seems to believe that implementing Basel norms is what modernisation of the banking system is all about. Since early 1999 it has been goading banks to introduce effective credit risk management systems. This is clear from the number of guidelines it has issued to banks on this and related subjects.

RBI defines credit risk as “the possibility of losses associated with diminution in the credit quality of borrowers or counter parties. In a bank’s portfolio, losses, stem from outright default due to inability or unwillingness of a customer or a counter-party to meet commitments in relation to lending, trading, settlement and other financial transactions. Admittedly, losses result from reduction in portfolio value arising from actual or perceived deterioration in credit quality. Credit risk emanates from a bank’s dealing with an individual, corporate, bank, financial institution or a sovereign.”<sup>18</sup>

Banks have been asked to set up a Risk Management Committee and also an independent Credit Risk Management Department. The former will be a Board level Sub-committee including CEO and heads of Credit Market, and Operational Risk Management Committees. It will formulate policy and strategy for integrated risk management. The latter will measure, control and manage credit risk on a bank-wide basis.

The risk measurement and quantification at the transaction level is of great importance in Credit Risk Management and this requires some mathematical or statistical tools. A popular model used to evaluate and price credit risk based on market data is the RAROC (Risk Adjusted Return on Capital) model. This model pioneered by what was then known as the Bankers Trust has now been adopted by virtually all major banks in the U.S. and Europe. The underlying idea seems to be that rather than evaluating the actual or contractually promised annual lent, the lending officer balances the expected interest and fee income against the loan’s expected risk.

To quote the RBI; “The Reserve Bank favours, a process of gradual convergence with international standards and best practices with suitable country-specific adaptations. This has also been the guiding principle in the approach to the New Basel Accord. Having decided in principle, in April 2003, to adopt the Basel Accord, the

Reserve Bank is overseeing a road map for migration to Basel II with reviews of progress made at quarterly intervals. To begin with, all banks in India will adopt the standardised Approach for credit risk and Basic Indicator Approach for operational risk. After adequate skills are developed, both in banks and at supervisory levels, some banks may be allowed to migrate to the Internal Ratings Based (IRB) Approach.”<sup>19</sup>

Wading through the 54 page, highly technical and jargon-ridden document of RBI “Risk Management Systems in Banks: Guidelines” issued in 1999, one wonders how many bankers at the operational level could actually follow these guidelines, let alone implement them meaningfully. Enclosed with the Manual are two BIS Papers: one on “Stress Testing” and the other on “Back testing” Banks, are asked to “develop stress capabilities to undertake tests to capture adverse effects of extreme volatile conditions or outlier events.” Although the BIS papers are themselves apologetic about the tentative nature of these tests, RBI seems to be over-enthusiastic to educate PSBs. To get a flavour of the rigours of the risk management system, let us take the stress test.

“Banks that use the internal models approach for meeting market risk capital requirements must have in place a rigorous and comprehensive stress testing program. Stress testing to identify events or influences that could greatly impact banks is a key component of a bank’s assessment of its capital position.”

“Banks’ stress scenarios need to cover a range of factors that can create extraordinary losses or gains in trading portfolios, or make the control of risk in those portfolios very difficult. These factors include loss-probability events in all major types of risks, including the various components of market, credit and operational risks. Stress scenarios need to shed light on the impact of such events on positions that display both linear and non-linear price characteristics (i.e. options and instruments that have options like characteristics). (Page 46 of the BIS paper: “Amendment To the Capital Accord To Incorporate Market Risks).

Again, take the case of “Back testing”. The Basel Paper on “Supervisory Framework for the use of Back testing in conjunction with the Internal Model Approach to Market Risk Capital Requirements” itself is rather apologetic about the tentative nature of the test: “As a technique of evaluating the quality of a firm’s risk management model, back testing continues to evolve” (page 1).

Nonetheless the paper “urges banks to develop the capability to perform back tests using both hypothetical and actual training outcomes” (page 4). “These back testing programs typically consist of a period comparison of the bank’s daily value-at-risk measures with the subsequent daily profit or loss (trading outcome)” (page 2).

RBI seems to have taken pleasure in weaving a whole mythology around risk management system, regurgitating the models and material dished out by BIS. Perhaps these efforts of RBI would have been admirable if only risk management were an academic exercise. Unfortunately for the RBI, the management system has to be translated into action plans at the ground level. As Dr. S.S. Tarapore puts it rather sarcastically. “In this context there is an imperative need, for the RBI to prepare a *Child’s Guide* to risk management in totally free from jargon language.”<sup>20</sup>

There is a more basic point in raising these broader issues of risk management by banks in this study. BIS may be the repository of all knowledge about modern banking in developed countries. The complexities of lending to agriculture and related rural sectors cannot be reduced to a grand formula that is hostile to nuances. But surely nobody including RBI could credit BIS with sound knowledge of the intricacies of lending to agriculture in developing countries. It is here that “suitable country – specific adaptations” become necessary. The risk management system propounded by RBI is certainly not appropriate for agriculture. The misguided measure of charging a relatively high lending rate to agriculture in the 1990s, discussed earlier, is a case in point. Efforts should therefore be made to evolve appropriate guidelines for a risk management system for the agricultural sector. This system should fulfill three conditions. First, the management system should be firmly anchored in an appropriate risk philosophy the outlines of which have been sketched earlier. Second, the risk-reducing role of credit should be factored into the rural credit policy including interest rate policy. Third, the term “agriculture” has to be used in an extended sense which would, of course, include allied sectors like livestock, fisheries and forestry. In addition, other investment avenues which would go some way towards raising the production capabilities of agriculture should also be covered. These dimensions of risk management have been spelt out later. It is not too late for the RBI and NABARD to set up a Working Group to evolve appropriate Guidelines in the light of these considerations. These Guidelines should, among others, identify agriculture and related rural sectors or subsectors to which credit support, both short term and long-term credit, needs to be extended;

there should be prioritization among these sectors and subsectors for the purpose of concessional lending; and the preferred mode of lending – whether through NGOs or Panchayat Raj institutions – should also be specified. After all, banking, commercial or cooperative, continues to remain an art.

Nostalgically, one recalls here how the authors of the Report of the All India Rural Credit Survey (1954) sought to adapt admirably the rural lending practices to suit Indian conditions. To overcome the collateral syndrome of banks which was hampering lending to agriculture, they evolved the new concept of crop loans offered on the security of standing crops, irrespective of the ownership of the land concerned. One looks in vain for such innovations in the present Guidelines for Risk Management, particularly with reference to agriculture or priority sectors.

Ironically, Dr. Y.V. Reddy, Governor RBI has recently made out a case for Public Policy in Risk Management in Agriculture. “Finally ..... there is merit in considering a comprehensive public policy on risk management in agriculture, as not only a means of relief for distressed farmers but as an ingredient for more efficient commercialised agriculture.”<sup>31</sup> While fully agreeing with this proposal one can only submit that charity must begin at home with a revamped rural credit policy.

## **Section V**

### **The Conceptual Framework of Risks and Uncertainties in Agriculture**

This quick survey of empirical episodes clearly brought out the fact the risk perceptions of bankers about agriculture have gone through significant changes during the last three decades. It would be misleading to equate these risk perceptions with intrinsic risk in the sector which could be captured by a statistical formula since the perceptions have been influenced by many factors other than intrinsic risk. In designing policy measures to tackle risks therefore one has to be guided by the wider concept of risk philosophy. This brings us to the basic concepts of risk. The conventional definition of risk is imperfect knowledge where the probabilities of the possible outcomes are known. In contrast, uncertainty exists where such probabilities are not known. In this sense, it is further argued that risk is amenable to statistical measurement, whereas uncertainty is not. In the decision making process in farm management, for instance this characteristic of “measurability”, is important. However, we have moved away from this conventional distinction since such cases where probabilities are objectively “known” are an exception rather than the rule.

For the present purpose, we would take the neo-classical definition of risk and uncertainty from the following standard textbook which is currently in popular use: “Coping with Risk in Agriculture”.<sup>21</sup>

“We define uncertainty as imperfect knowledge and risk as uncertain consequences, particularly exposure to unfavourable consequences. Risk is therefore not value free, usually indicating an aversion for some of the possible consequences. To illustrate, someone might say that he or she is uncertain about what the weather will be like tomorrow – a value-free statement simply implying imperfect knowledge of the future. But the person might go on to mention that he or she is planning a picnic for the next day and there is a risk that it might rain, indicating lack of indifference as to which of the possible consequences actually eventuates.”

Risk is not an exclusive character of agricultural business, because risk is common to all businesses like manufacture or trade. In fact, business profit is sometimes defined as a reward for risk. Our task here, however, is to identify agriculture-specific risks and

seek to indicate their implications for the banker or lender in general. Most text-books on risks in agriculture deal with farming business in developed economies and their focus is on spelling out how best the individual farm business can tackle the risks involved effectively. Thus it is a *micro* view of risks, in agriculture, from the point of view of the individual farming unit. Farming business in the developed economies has become far more sophisticated and therefore the methods for the analysis of risky choices have become far more complicated than the more familiar forms of analysis as budgeting method. The various methods which have been evolved for analyzing choices involved in risk management are collectively called decision analysis. Furthermore, advances in computer software and hardware have made applications of methods of decision analysis simpler and quicker, than in the past for the individual farmers in the more developed economies.

In farming business, it is common to identify four main risks namely, production risk, market risk, institutional risk and personal risk. Collectively this is called business risk.

- i) Production risk stems from the unpredictable nature of the weather and the consequent performance of crops or livestock.
- ii) Market risk refers to uncertainties regarding prices of farm input and outputs. Increasingly, farmers the world over, are being exposed to unpredictable markets for inputs and outputs. Thus price or market risk in the sense of pricing inputs and outputs has become significant over time. Price risk also includes risks arising from fluctuations in exchange rates.
- iii) Institutional risk embodies political risk, which means changes in policies or measures which affect agriculture adversely. Changes in price support measures, in input pricing, in marketing arrangements – all these may affect the profitability of farming.
- iv) Finally, there are personal risks: prolonged illness of the head of the farming family, or his death is an instance in point.

The totality of these risks is business risk which faces the farming unit – and this is independent of how the unit is financed. Thus financial risk is independent of the business risk. There are financial risks in using credit by the farmer. Availability of loan or credit, inadequate quantum of credit, unexpected rise in interest

rates on these loans, unexpected calling – in of loan by the lending institution – all these are financial risks faced by the farming unit.

The trouble with our monetary and credit policy makers of the 1990s and also public sector bankers during this period was that their perceptions of risks in agriculture were influenced solely by farming models in developed countries like the U.S. or Australia. Text-books of the type referred to above are entirely based on such models, understandably because they are meant for use in developed economics.

Take the business of a farm as given and assess the risks involved in lending to such a unit. In other words, we interpret the risk in lending, taking the farm as it is situated at a given point of time. This sort of approach may be alright for farming in a developed economy. In the case of a developing economy like that of India the real task of facilitating agricultural growth consists in seeking to reduce the incidence of risk itself. Of course, this task of reducing the risk is a cooperative enterprise of both the Government – Central and State Governments and the whole range of Panchayat Raj institutions on the one hand, and lending institutions like commercial and cooperative banks and NABARD on the other. That is, all lending institutions become partners in this task of risk reduction and it should be the business of these lending institutions to so devise their lending policies that their end result is not only growth-enhancing but also risk-reducing. Collectively, therefore lending institutions would seek to change the risk profile of the agricultural sector as a whole. Do not be content with merely interpreting the existing risk but seek to change it. This motivation lends on entirely different perspective to our basic approach to lending. Viewed in this context, the present practice discussed earlier, of assessing the existing risk and building a *premium* into lending rates to agriculture, becomes flawed both in theory and practice, as spelt out earlier.

Looking at risks in agriculture either from the point of view of an individual farming unit, or from the view-point of a lending institution – both these are micro perceptions and this matrix is of limited relevance to situations in developing economies. We have already discussed the need to superimpose a macro perception on these two micro perceptions and thereby broaden the conceptual framework itself to suit the conditions in developing countries.

## Section VI

### Risk and Non-performing Assets (NPAs)

During the phase of banking sector reforms in the 1990s, it became fashionable to use NPAs data, without appreciating the nuances characterising them, to give a bad name to certain sectors. Since NPAs were high in priority sectors, including agriculture, the incidence of risk was deemed to be high in these sectors. As the data presented in Table I show, 31 per cent of gross advances in priority sectors were NPAs in 1995. In contrast in Non-priority sectors the percentage of NPAs was low at 14. Hence the conclusion drawn was that bankers should shy away from priority sectors; and that they should also add a risk premium to the lending rates of these sectors. Thus NPAs were equated with the degrees of intrinsic risks in these sectors. It is legitimate to ask: How far is this interpretation justified?

**Table - 1 : Sector-wise Proportion of  
Non-performing Advances of Public Sector Banks**

*(Rs. Crore)*

Year	Non-Priority Sector		Priority Sector		Total Advances	
	Gross Advances	Of which Non-performing Advances	Gross Advances	Of which Non-performing Advances	Gross Advances	Of which Non-performing Advances
1995	135558	19177 <i>14.15</i>	61794	19208 <i>31.08</i>	197351	38385 <i>19.45</i>
1996	161712	22555 <i>13.95</i>	69609	19106 <i>27.45</i>	231321	41661 <i>18.01</i>
1997	165083	22803 <i>13.81</i>	79131	20774 <i>26.25</i>	244214	43577 <i>17.84</i>
1998	193652	24469 <i>12.64</i>	91319	21184 <i>23.20</i>	284971	45653 <i>16.02</i>
1999	218128	29103 <i>13.34</i>	107200	22607 <i>21.09</i>	325328	51710 <i>15.89</i>
2000	252599	29581 <i>11.73</i>	127478	23713 <i>18.55</i>	380077	53295 <i>14.02</i>
2001	293018	27307 <i>9.3</i>	149116	24156 <i>16.2</i>	442134	51463 <i>11.6</i>
2002	338184	30251 <i>8.9</i>	171185	25139 <i>14.7</i>	509369	55390 <i>10.9</i>
2003	374718	26781 <i>7.1</i>	203095	24938 <i>12.3</i>	577813	51720 <i>9.0</i>

*Figures in Italic are percentage of NPAs to Gross Advances*

Source : Report on Trend and progress of Banking in India (various volumes.

To equate mechanistically NPAs with the incidence of intrinsic risks would be flawed. First, the dimensions of NPAs to priority sectors have to be judged in the historical perspective, as we have discussed earlier, of erosion of repayment ethics. Second, the neglect of priority sectors including agriculture by bankers during the 1990s must have also meant, neglect of follow-up of repayment of loans particularly of loans to small farmer borrowers. The disenfranchisement of small farmers, referred to earlier, must have also blown up the dimensions of NPAs.

This analysis is further strengthened by the more recent trend of a sharp decline in NPAs in priority sectors. For instance, NPAs in priority sectors declined from 31 per cent of gross advances in 1995 to 12 per cent in 2003. Even within the priority sectors, it is the small-scale industries sub-sector which accounts for the bulk of NPAs in 2003 the NPAs of this sub-sector stood at 19 per cent. In contrast, the NPAs of agricultural sector stood at 10.5 per cent, declining from 13.7 per cent in 2001 (see Table 2).

**Table - 2 : Sub-sectorwise proportion of non-performing Asset to Gross Advances under Priority Sector in Public Sector Banks**

*(In per cent)*

As at end March	Agriculture	Small-scale Industries	Others	Total
2001	13.7	21.3	15.9	16.2
2002	12.3	21.2	12.5	14.7
2003	10.5	19.2	9.9	12.3

A more encouraging feature of recent developments is that the trend in default is pronouncedly low in the case of incremental NPAs under advances under priority sectors. Out of the total Non-performing Assets (NPAs), the share of priority sector NPAs has declined from 50 per cent in 1995 to 46 per cent in 1998, clearly reflecting a decline in incremental priority sector advances. The ratio of incremental NPAs to incremental advances was 6.7 per cent in the case of priority sector advances, as compared to 7.3 per cent for non-priority sectors.<sup>22</sup> In other words, a large chunk of the overhang of NPAs in the priority sector, including agriculture, was perhaps the result of inadequate appraisal, monitoring and follow-up of rural lending. With the improvement in the governance of banks, NPAs

in priority sectors, including agriculture, are bound to decline further.

The point that is sought to be made here is that the dimensions of NPAs in a particular sector cannot be mechanistically interpreted as reflecting the intrinsic risks in the particular sector. One has to go behind the data to derive any policy conclusions.

## **Section VII**

### **Growth Imperatives and the Role of Rural Credit**

To reiterate, our risk philosophy must be firmly anchored in development imperatives. How does one translate this basic tenet into policy measures? First of all, we should have a clear vision of the profile of the future growth of the economy say, during the next decade or so. Secondly, rural credit policy would have to be shaped in such a way as to facilitate the growth pattern so envisaged.

Before spelling out in concrete terms the policy measures of such an approach, the need for de-briefing bankers, particularly public sector bankers, about the new banking culture they have acquired during the 1990s should be underlined. It should be drilled into their ears that lending to priority sectors, including agriculture, is as important as lending to corporate elites, or capital market related activities or to consumer durables, or exports, or to housing. NPAs, as they have emerged historically, cannot be equated with intrinsic risks in the relevant sector; do not use these historical data of NPAs to shun some sectors. Policy makers of the 1990s brought up on the diet of IMF/World Bank market theology should, on their part, realise that their case for shunning subsidies to agriculture is flawed. The obscenely high level of subsidies entrenched in agriculture in developed countries should disabuse the minds of these policy makers of the anti-subsidy syndrome. The exhortation of these policy makers to Indian agriculture to be internationally competitive should be tempered by this basic fact. We need not be apologetic about extending subsidies to agriculture, including interest rate subsidy, wherever such subsidy is justified.

On the positive side, let us begin with the following statement of the Tenth Plan: "Agricultural development must be viewed as a core element of the Plan, since growth in this sector is likely to lead to the widest spread of benefits especially to the rural poor. The first generation of reforms concentrated on the industrial economy and reforms in the agricultural sector were neglected. This must change in the Tenth Plan."<sup>23</sup> The broad contours of the future growth of the economy, the critical role that agriculture would play in sustaining a GDP growth of 8 per cent or so, in ensuring food security and generating employment opportunities are spelt out clearly in the following two papers which form the Section IX.

I. Role and Relevance of Priority Sector Lending in a Globalised Banking Scenario; and

II. Resurrection of Rural Credit.

For convenience, the main conclusions emerging from the analysis of the two papers may be summed up here. First, the configuration of circumstances when the economy is in the third year of the Tenth Plan (2002-07), is such that the priority sectors, including agriculture, would continue to play a critical role in the growth and development of the Indian economy. Agricultural growth of say 4 per cent per annum as compared to a “growth of 2 per cent witnessed in the Ninth Plan becomes a critical minimum in order to sustain an overall GDP growth of some 8 per cent in the coming years. The second point relates to food security. The magnitude of future foodgrains requirements look quite formidable. Even modest projections of demand for cereals in 2020 place the estimate at 260 million tones, as compared to the production level of 187 million tones in 2001. The enormous gap to be bridged between demand and supply is thus obvious. Thirdly, the employment situation. The current backlog of unemployment is around 9 per cent or equivalent to 35 million persons and this is far too high. On the basis of Prime Minister’s vision of creating 100 million employment opportunities over the next ten years, the Tenth Plan has set a target of creation of 50 million jobs during the five years. If this target is achieved, unemployment is likely to decline to some 5 per cent by the end of the Tenth Plan. To be able to realize this target, the focus will have to be on a wide range of sectors, such as agriculture and allied sectors, construction, tourism transport, small-scale industries (SSI), micro-enterprises, retail trade and so on. The organised sectors like large and medium industries, can do precious little to meet the enormous employment demand and hence the policy thrust will have to be on decentralized and broad-based growth.

On the whole, larger flow of credit alone can support higher agricultural growth, accelerated production of foodgrains, and decentralised growth.

The profile of future growth warrants that the rural credit system would have to take on, as it were, a new avatar not only in terms of diversification of loan-portfolio but also in terms of the architecture of the credit delivery mechanism.

Rural credit will have to look well beyond crop loans. Fresh water has emerged as a key constraint on future agricultural growth, because of the tightening supply and rapid expansion of demand. The present Government has realised the critical importance of water “Water is the lifeline of civilisations. We have been warned that the biggest crisis that the World will face in the 21st century will be crisis of water.”<sup>24</sup>

The idea of water as a precious resource which should carry a price tag, and the need for integrated water resources management at the community, state and national levels have now become the core of water-policy thinking. This is in consonance with the trend the world over. “Even between the second World Water Forum held in 2000 in the Hague and the third held in 2003 in Kyoto, ideas had changed. Instead of compartmentalizing “water for health,” water for food, and “water for environment” a more holistic goal is in sight: water security and sanitation for all, especially for the poor”.<sup>24B</sup> In fact Dr. M.S. Swaminathan defines food security as “physical, economic, social and ecological access to balanced diet, and clean drinking water for all and for ever.” Viewed in this broader context, there is need for a decentralized approach to water harvesting and saving technologies, and equitably water-sharing methodologies based on soil and climatic condition on the one hand, and socio-cultural factors on the other.

Three inter-connected programmes assume prominence in this context; watershed development programmes; renovation of all the water bodies linked to agriculture, which have presently fallen into disuse; and rain water harvesting. Today, watershed development is seen as the principal strategy for holistic development of rainfed areas, though in the initial stages it was conceived mainly a measure for moisture conservation and soil stabilisation. The new “Watershed Plus” approach to watershed development as spelt out in the Tenth Plan seeks to ensure convergence of all other programmes that promote economic activities and generate increased employment opportunities. Watershed development, both macro and micro, should have emerged as a major programme of agricultural and rural development. But even in Maharashtra, which is a pioneer in this area, only 15 per cent of the potential eligible area is covered by such programmes. Second, Indian agriculture has been historically sustained by natural and manmade water bodies such as tanks, lakes, ponds and similar structures. There are more than a million such structures, of which about 50,000 are utilised for irrigation. Many of them have fallen into disuse, accumulating silt and these

need to be restored urgently. The Budget for 2004-05 proposes a massive scheme to repair, renovate and restore all these water bodies directly linked to agriculture. A Pilot project one in each district would be launched straightaway at an estimated outlay of Rs. 100 crore. This is indeed a good beginning in an entirely neglected area. Thirdly, rain water conservation and harvesting has important implications for the groundwater crisis that India is currently facing due to indiscriminate use of tube-well technology in different parts of the country. For rainwater harvesting to be effective, careful attention must be paid to the uses to which the water is put.

The thrust of policy in the coming years should therefore be on these three inter connected programmes which, taken together, would go a considerable way towards reducing the degree of vulnerability of Indian agriculture to drought, and thereby enhancing the sustainability of agricultural production at high levels and also food security. These provide an ideal example of risk-reducing and growth-enhancing avenues of credit deployment. Of course, the major support to these programmes might come from public and private investment but such investments need complementary support of rural credit, long, medium and short-term. There is some merit in rural credit institutions themselves taking initiatives in exploring such avenues for credit deployment. This holds true for both public sector banks and cooperative credit institutions. Also there is a strong case for providing concessional lending rates to these segments because credit plays the dual role of growth enhancement and risk-reduction.

At this point reference may be made to an important related issue, namely, promoting water use efficiency. Our water use efficiency in agriculture is perhaps the lowest in the World. Water use under different cropping systems and agro-climatic situations needs to be studied in-depth with a view to promoting economic and environmental efficiency. We need to promote on a large scale micro-irrigation technology through drip and sprinkler irrigation systems.

The refrain of the theme is that in the next couple of years lending of banks, cooperative credit institutions, and RRBs should be water-centric.

NABARD with its vast network of regional offices in all the State headquarters and its offices in most of the districts is ideally suited to take initiatives in providing a big boost to such water-centric

programmes or projects. For instance, NABARD in collaboration with State Governments and panchayat raj institutions could organise the preparation of a blue-print for micro watershed development and related projects for all districts – in arid zones. The year say 2006 could be designated as a “Year of Water Resource Regeneration” for the purpose of implementing simultaneously this cluster of project. NABARD could also coordinate the financing of these projects by involving, wherever suitable public sector banks, cooperative credit institutions and RRBs. In a way NABARD could underwrite the financing of these projects in the sense that any short falls in resources could be met by it either directly or indirectly. Such a major thrust to water-centric programmes would go a considerable way towards changing the risk profile of agricultural sector, besides encouraging economic activities in the rural areas.

While on this subject, one analytical point needs to be underlined. It can be seen that the focus of risk management in agriculture is enlarged to cover not only crop production but also augmentation of water supplies for crop production. Viewed in this broader perspective, the relevance of risk management models in agriculture, borrowed from developed countries, becomes seriously circumscribed.

There is a wide range of activities which have a direct or indirect bearing on agricultural and rural development. Some of these are elaborated in the two papers: among them mention made of organic farming with organic seed and compost preparation: utilisation of wastelands and development of forests. Most of these thrust areas of rural development, as envisaged in the Tenth Plan need credit support and hence the loan-portfolios of rural credit institutions should begin to reflect a more diversified credit support extended to these emerging areas. In a wider context, it has now become necessary to talk in terms of, what the recent Committee on Capital Formation in Agriculture, calls, Capital Formation for Agriculture”, in contrast to our conventional approach, of “Capital Formation in Agriculture”. To quote the Committee’s Report: “As agriculture is getting diversified, there is a need to not only augment but also restructure the pattern of investment in agriculture. Historically, the Public Sector has taken a lead in directing the growth and pattern of agricultural investment. We recommend that immediate steps should be taken to improve capital formation for agriculture in both Public and Private Sectors. Otherwise, it may be difficult to sustain the agricultural growth and rural purchasing power. Currently, irrigation accounts for the bulk of public investment (above 90%).

The new strategy of agricultural growth and diversification of agriculture from traditional crop cultivation to horticulture etc., would require more investment in cold storage, rural roads, communication, marketing network and facilities, warehouses etc. Simultaneously, efforts should be made to revitalise agriculture through introduction of bio-technology and other innovations. This would require substantial increase in investment in research and development for agriculture.”<sup>25</sup>

Let us now turn to the other facet of the new avatar, namely, the transformation of the credit delivery mechanism. Underlying the present sickness of the rural credit system are two core causes: high transaction costs and poor recovery performance. More recent experience has demonstrated that both these problems can be tackled effectively through the instrumentality of micro credit institutions. The experiment of micro finance through the conduit of Self Help Groups (SHGs) has shown that transaction costs could be reduced drastically and repayment rates can be as high as 90 per cent. Incidentally, this shows that NPAs do not reflect intrinsic risks in lending to agriculture. Both RBI and NABARD have been recently spear-heading the promotion and linkage of SHGs to the banking system through refinance support and other pro-active policies. The programme initiated in 1992 covered, at the end of March 2003, 31,000 rural outlets of more than 500 banks, with loan portfolio of Rs. 2,000 crore. Thus the programme has enabled the formal banking system to reach 11.6 million poor households through the conduit of 7.17 lakh SHGs. But we have a long way to go to be able to cover the bulk of the rural poor families. In any case, the role of micro credit as an appropriate institutional instrument to reduce credit risks, as perceived by bankers, is now established and the rural credit system – commercial banks, cooperatives and RRBs – must move towards spreading this model, and spreading it fast.

Overall, it is clear that production risk in agriculture could be reduced through the schemes like watershed development discussed earlier. The repayment risk could be reduced through evolving a new architecture of the rural credit delivery mechanism. Taken together these reforms would go a long way towards changing the risk profile of the agricultural sector as a whole.

## **Section VIII**

### **Price Risks and Crop Insurance**

At the end, a brief reference may be made, as a post-script to the main theme, to two risk protection measures, namely, price support and crop insurance.

#### **Price Support**

The current debate questions the utility of the food security system in the context of ongoing liberalisation of trade in foodgrains and the comfortable foreign exchange reserves position. It may be recalled that to protect farmers from the risk of wide fluctuations in the price of farm products, Government has been providing, for some years, Minimum Support Prices (MSP) for 24 major crops including paddy, wheat, jowar, bajra, maize, ragi, pulses, oilseeds, copra, cotton, jute, sugarcane and tobacco.<sup>26</sup> In the case of rice and wheat in particular, this incentive mechanism – the MSP, procurement of foodgrains by Food Corporation of India (FCI) and public distribution of foodgrains – has worked wonders for the supply scenario. India which was a chronic importer of foodgrains in the 1960s – imports of wheat averaged 3 million tonnes per year – has been transformed into one of the major foodgrains exporters today. India exported 10 million tonnes of rice and wheat in 2003-04. Assured minimum prices for rice and wheat, over the years, have promoted investment in the production of these crops and facilitated sustained growth. The system has created, in its wake, however, some distortions like distorted cropping pattern, burgeoning foodgrains stocks and mounting food subsidies. As a consequence, and inspired by the market theology, there is clamour by some sections, for abolition of the whole incentive mechanism. “The disgrace is that MSP has not been slashed, as it ought to have been.”<sup>27</sup> This is not an appropriate place for an in-depth analysis of the whole issue. The limited point, relevant to our main theme, which needs to be driven home is: market theologians should be warned of the grave dangers to food security, if this incentive mechanism is dismantled on the specious ground of “surpluses” of foodgrains. Our contemporary policy makers should, first, disabuse their minds of this illusion of “surpluses”. What we have now is a situation of an “effective demand surplus” and *not* a genuine surplus. The task of meeting future foodgrains requirements looks formidable. Even modest projections of demand for cereals in 2020 place the estimate at 260 million tones, as compared to the production level of 210 million tones in 2003-04.

The enormous gap to be bridged between demand and supply is obvious, especially in the context of production in the more fertile, well-endowed lands having reached a sort of plateau. Secondly, we are only too familiar with the rapacious nature of private trade in foodgrains. Private trade's strategy of exploiting both farmers and consumers by depressing prices in the post-harvest period and artificially raising them in the lean season is now part of the folklore of textbooks on the Indian economy. Left to private trade, foodgrains prices especially of wheat, would have crashed in the years of glut: for instance, when foodgrains stocks with FCI reached a peak of 60 million tonnes. This would have had adverse impact on medium term production trend of these crops. Similarly, in years of severe drought as in the case of 2002-03, foodgrains prices would have sky-rocketed.

The fact that neither crash nor spurt in prices took place in reality is a vindication of the effectiveness of the incentive mechanism built up over the years. Against this background, dismantling the incentive mechanism would tantamount to throwing the baby away with the bath water. To argue on these lines is certainly not deemphasise the importance of streamlining the MSP mechanism, or the efforts to improve the efficiency of FCI operations. The limited point that is sought to be made is that assured minimum prices for main foodgrains should continue to form an essential ingredient in the policy-mix designed to promote sustained production of foodgrains.

### **Crop Insurance**

Crop insurance basically protects the farmer from weather induced risks like flood, drought, hailstorms etc. and price risks. As Reserve Bank of India (RBI) has emphasized recently, "To attain higher growth in agriculture, the major areas requiring attention in the financial sector are, *inter alia* spread of insurance against crops....."<sup>28</sup>

There was a Comprehensive Crop Insurance Scheme (CCIS) in operation since 1985. In its place, Government of India introduced a new scheme entitled "National Agricultural Insurance Scheme" (NAIS) from the *rabi* 1999-2000 season. The scheme is available to all farmers irrespective of their size of land holdings. It envisages coverage of all the food crops (cereals, millets and pulses), oilseeds and annual commercial and horticultural crops, in respect of which past data are available for an adequate number of years.

The premium rates are 3.5 per cent of the sum insured for bajra and oilseed, 2.5 per cent for other *kharif* crops, 1.5 per cent for wheat, and 2 per cent for other *rabi* crops. Small and medium farmers are entitled to a subsidy of 50 per cent of the premium which is shared on 50:50 basis by the Central and State Governments. The premium subsidy is expected to be phased out over a period of 5 years.

The scheme is operating on the basis of "Area Approach", that is, defined areas for each notified crop for widespread calamities and on "an individual basis" for localized calamities like hailstorm, landslide, cyclone and flood. At present the scheme is being implemented in 23 States and 2 Union Territories.<sup>29</sup>

Data regarding the area and farmers covered, the sum insured, insurance charges etc. are provided in the following Table.

It is thus clear that in terms of overall dimensions involved the coverage is limited. A more basic question is: how far such insurance is economically viable? Examining cross country experiences with crop insurance. Dr. Bhupat Desai sums up the situation: "coverage is limited, implementation is fraught with managerial difficulties and moral hazards, and crop insurance programme is financially unviable and a drain on public exchequer."<sup>30</sup> These studies showed, for instance, that to fully recover the cost of this programme in a country like the U.S.A., the premium would have to be as high as 20 per cent!

**Table : Performance of the National Agricultural Insurance Scheme**

Sr. No.	Particulars	Rabi 2000-01	Kharif 2001	Rabi 2001-02	Kharif 2002	Rabi 2002-03	Kharif 2003	Total
1.	Farmers covered (in lakh)	20.92	86.96	19.55	97.65	23.27	79.69	328.04
2.	Sum insured (Rs. in crore)	1,602.68	7,502.46	1,497.51	9,429.44	1,837.53	8,110.13	29,979.75
3.	Insurance charges (Rs. in crore)	27.79	261.62	30.15	325.38	38.50	283.14	966.58
4.	Area coverage (in lakh ha)	31.11	128.88	31.46	155.22	40.38	122.89	509.94
5.	Total claims (Rs. in crore)	59.49	492.63	64.66	1,821.79	193.03	191.92	2,823.52
6.	Claims paid (Rs. in crore)	59.25	492.32	64.37	1,754.28	114.15	12.02	2,496.39

Source: Economic Survey, 2003-2004. Page-163.

Perhaps selectively crop insurance schemes could be tried in specific circumstances; but they cannot provide total solution to the general question of risk protection of farmers.

We cannot do better than sum up the current situation in the following words of Dr. Y.V. Reddy, Governor, Reserve Bank of India: "...On the critical issue of risk-mitigation, it is held that experiments with crop or credit-insurance in India have not been very satisfactory so far. In fact, many farmers argue that where compulsory insurance is resorted to, it increases the burden of borrowing from institutional sources and once the transaction costs are added, the overall costs exceed the Prime Lending Rates Significantly ..... Perhaps, it is necessary to recognize that if some elements of insurance are *ab initio* not viable, extending credit becomes more risky and hence constrained."<sup>31</sup>

## **Section IX**

### **Agriculture and India's Economic Development: Macro Perceptions**

#### **Role and Relevance of Priority Sector Lending in a Globalised Banking Scenario**

In the recent economic history of India, the 1990s would go down as a lost decade for priority sectors including agriculture, and for the poor who constitute more than a quarter of the total population. Policy-makers both at the Central Government and at the Reserve bank of India (RBI), soaked in the market theology of the IMF and World Bank version, succeeded in shifting the focus of macroeconomic management away from the end-objectives of development, namely, reduction in poverty and improvement in the quality of life of the bulk of the population. The poor practically disappeared from the development agenda and the policy-makers seemed to stipulate: let the poor fend for themselves. This was especially unfortunate because Indian policy-makers were pioneers in emphasising the distributive aspects of growth right from the inception of planning in 1951, at a time when it was not fashionable in development economic to do so. There was in the 1990s an amazing perversion of priorities. Privatisation was pursued with a missionary zeal, with the Minister for Disinvestment emerging as a messiah of modern capitalist India. The other obsessive concerns were development of the Capital market and the import of gold. Throwing open port-folio investment to foreign institutional investors (FIIS), extending fiscal concessions to investment in equity and a host of other supportive measures were taken to boost the capital market. RBI winked at the defaults of public sector banks (PSBs) in terms of their adhering to the credit targets set for priority sectors and agriculture; and at the same time goaded PSBs to involve themselves increasingly in the capital market, both directly and indirectly. Import of gold was liberalised with a vengeance, the average annual imports soaring to staggering level of \$ 5 billion. Policy-makers pleaded paucity of resources when it was a question of additional investment in irrigation, but they had no compunction to release resources of the alarming dimensions for investment in an unproductive asset like gold. Fortunately, we were able to produce reasonably adequate quantities of foodgrains but by the mindless pursuit of flawed food management policies, inspired by market theology; we allowed foodgrains stocks with the public sector to accumulate to more than 60 million tonnes. Substantial reduction in

food subsidies inspired by market theology, resulted in foodgrains becoming increasingly inaccessible to the poor and as a consequence, offtake of foodgrains from the public distribution system (PDS) declined sharply. Food mountain thus co-existed with a distressingly large proportion of under-fed and under-nourished population. Policy makers in their wisdom found a brilliant solution to the food mountain: export foodgrains with a substantial subsidy, no matter market theology does not permit subsidisation for domestic consumption! Exports of rice and wheat soared to 10 million tonnes in 2002-03. The economic Survey, 2003-2004 exults in this achievement: "Agricultural exports increased from \$ 5.9 billion in 2001-02 to \$6.7 billion in 2002-03.... The exports of foodgrains (rice and wheat) have picked up considerably in recent years accounting for around 20 per cent of the agricultural exports. The Government's special efforts to encourage exports of foodgrains in recent years through grant of WTO compatible subsidies has placed India as one of the leading exporters of foodgrains in the international market."<sup>32</sup> Is this the impact of globalisation on the Indian economy? India is the abode of the largest number of under-fed and under-nourished population in the world. It is tragic enough not to be able to produce adequate quantities of foodgrains to meet domestic consumption requirements: it is a greater tragedy that we are unwilling to utilise all the foodgrains produced for domestic consumption. In any other country, such massive exports of foodgrains against the background of chronic semi-starvation would have exploded into a revolution. But ours is an ancient civilisation known for its quiescence. Food security in a meaningful sense is ensured by not merely producing an adequate quantum of foodgrains but also by ensuring that the grains so produced do reach the needy. In fact the Tenth Plan should have devoted a whole chapter to find an appropriate solution to the problem of evolving a food delivery mechanism which would ensure food security in a holistic sense.

Overall, the inter-regnum of 12 or 13 years since 1991 to 2003 remains a nightmare in India's development dream.

It was left to the United Progressive Alliance (UPA) Government to rediscover, as it were, poverty in 2004: its National Common Minimum Programme (NCMP) reflects this rediscovery: "Empowering the people especially the poor with universal access to education and health, and facilitating their full participation in the growth process through gainful employment will enhance their welfare. It will reinforce the growth process itself. This win-win strategy is the key

stone of the economic policy framework of the Government.”<sup>33</sup> One of the seven important economic objectives<sup>34</sup> spelt out in this context is: Assuring 100 day’s employment to the bread-winner in each family at the minimum wage. Implementation of these programmes, however, is not going to be an easy task. The corrosive influence of market theology nurtured by economic reforms during the 13 year inter-regnum is reflected in the new banking culture which shuns lending to priority sectors or to small borrowers generally; and in the new governance culture which has become almost insensitive to poverty and its attendant evils. Changing the mind-sets of the actors involved in the financial and development sectors, and re-orienting the policy-thrusts pose a great challenge to a development today. This would also mean re-definition of our basic approach to poverty reduction and re-drafting our development agenda. All this would involve, to borrow the words of Prime Minister Dr. Manmohan Singh: “a change in the manner in which the country is run, a change in the national priorities and the change in the processes and focus of governance”.<sup>35</sup> This article seeks to reiterate that priority sectors would continue to play a critical role in the growth and development of the Indian economy, notwithstanding its globalization. The financial system, particularly public sector banks (PSBs) will have to re-address themselves to the task of lending credit support to this role. To enable the PSBs to do so, it may be necessary to de-brief bankers about the new banking culture they have acquired under the delusions of globalised banking. In the new milieu, rural credit will have to take on a new *avatar*, both in terms of diversification of loan portfolio and in terms of the credit delivery mechanism.

### *The Inherited System*

Let us begin with the main elements of the system we have inherited from inter-regnum of 12 or 13 years. The emphasis of economic reforms introduced during this period exhibits the form of the text-book characteristics of a liberalised and open economy rather than the substance of development: reduce state intervention and its involvement in economic activities, usher in market-driven economy, abolish all subsidies including food and interest rate subsidies to the poor and let the poor fend for themselves. Public investment in agriculture declined, the rate of addition to irrigated area decelerated and the flow of bank credit to priority sectors also shrank.

If the rural credit institutions find themselves in a moribund state today, this is largely attributable to the financial sector reforms introduced in the 1990s, as part of the process of liberalisation and

globalisation of the Indian economy. In the milieu of the new banking culture fostered by reforms, lending to agriculture or priority sectors generally became unfashionable. The relative magnitude of the flow of credit to agriculture shrank and the interest rate regime which was designed to pamper the private corporate sector openly discriminated against agriculture. Even public sector banks (PSBs) merrily defaulted on the credit targets of 18 per cent of net bank credit to agriculture and 40 per cent of net bank credit to priority sectors. The Reserve Bank of India (RBI), which was obsessed with implementing the Basel norms as the main thrust of banking reforms, winked at the defaults. While the priority sector target has been attained during the last couple of years, the target for agriculture continues to remain unattained: lending to agriculture is around 15 per cent today, as compared to the target of 18 per cent of net bank credit. In the new banking culture, nurtured by reforms the focus of PSBs was on the three “C”s – namely Corporate elite, Consumer credit and Capital market related activities. For instance, PSBs had enough resources to extend a bridge loan to enterprises like M.S. Shoes, but they did not have funds to support the production of Sugar in Maharashtra.

While highly rated corporate entities could raise money from banks or PSBs at interest rates as low as 6 or 7 per cent, the small farmer was required to pay a rate of 12 per cent. It was left to the Government of India to reduce the lending rate to small farmer to 8 per cent only in August 2003. RBI’s neglect of agriculture and the rural sector generally was total during the 1990s: it failed to arrest the deterioration of the health of all institutions involved in rural credit: PSBs, Cooperative credit institutions and Regional Rural Banks (RRBs) – all of which showed high Non-performing Assets (NPAS). In other words, the financial sector reforms which were transplanted from the so-called Basel norms were ill-conceived and unrelated to the specific socio-economic milieu of the Indian soil, and they succeeded in creating an adversarial environment for rural credit. In fact the credit-deposit ratio of RRBs declined sharply over the 1990s, indicating a reverse flow of funds from the rural to the urban areas. Even RRBs were permitted to invest in the PSU bonds. No wonder, the annual average rate of agricultural growth decelerated sharply from 4.7 per cent in the Eighth Five Year Plan to only 2 per cent in the Ninth Plan. The average annual growth rate of GNP decelerated from 6.8 per cent in the Eighth Plan (1992-97) to 5.6 per cent in the Ninth Plan (1997-2002). I have documented elsewhere in detail how the reforms fad led to the sickness of the rural credit delivery system, as a whole.<sup>36</sup>

It is indeed gratifying to note that the Tenth Five Year Plan endorses this view-point: "It is being evident, however, that the organised financial sector in India is either unable or unwilling to finance a range of activities that are of crucial importance both for growth and development. Agriculture, unorganised manufacturing and services, and various types of infrastructure are instances of such sectors. The recent financial sector reforms have naturally focused primarily on improving the viability and stability of financial institutions without adequately addressing this issue. It is therefore necessary to consider methods of encouraging the financial sector to finance such activities, without impinging on its viability or compromising on prudential concerns."<sup>37</sup> One thing should be made quite clear: it was not "inability" of banks because the banking system was highly liquid during the 1990s, with the credit – deposit ratio hovering around 50 per cent.

#### *Critical Role of Priority Sectors*

The configuration of the circumstances when economy is in the third year of the Tenth Plan (2002-07), is such that priority sectors would continue to play a critical role in India's future growth and development. This needs to be dinned into the ears of public sector bankers who seem to be deluded by the grandeur of globalised banking. One looks in vain for initiatives of PSBs to revive rural credit in the document "Banking Industry Vision 2010", prepared by the Indian Banks' Association (IBA). It is unfortunate that this document does not even take cognisance of the problems of rural branches of banks, and their inability to meet the target for agricultural credit, despite the persisting low credit-deposit ratios. For the IBA, God is in heaven and everything is alright with rural credit. The document demonstrates IBA's ability to mouth empty rhetorics about market theology. "The banking system is expected to re-orient its approach to rural lending. "Going Rural" could be the new market *mantra*. Rural market comprises 74% of the population, 41% of middle class and 58% of disposable income .... Banks' approach to the rural lending will be guided mainly by commercial considerations in future.... Rural financial system (should) emerge as "one stop destination" for all types of credit requirements of people in rural/semi-urban Centres".<sup>38</sup> This reads like a script by Hindustan Lever executives exploring rural markets for their products! This is all that the PSBs supposed to be committed to rural development have to say on rural credit, in a document of 55 pages. Happily, PSBs have begun to sing a different note after the UPA Government announced its target of doubling agricultural credit in the next three years. Now the bankers highlight

the excellent repayment performance of Punjab National Bank in the area of priority sector lending: the repayment is more than 90 per cent. One hopes that this spirit will persist in the efforts now required to resurrect rural credit.

There are at least three reasons why priority sectors should continue occupy a pre-eminent position on the development agenda, if the end objectives of development mentioned earlier, are to be achieved. These are food security, employment and non-farm activities which are linked directly or indirectly to agricultural growth and rural development.

First, the magnitudes of future foodgrains requirements look quite formidable. Even modest projections of the demand for cereals in 2020 place the estimate at 260 million tonnes, as compared to the production level of 210 million achieved in the best agricultural year 2003-04. The enormous gap to be bridged between demand and supply is obvious, especially because production in the more fertile lands has already reached a sort of plateau. Contemporary policy-makers must realise that the so-called "exportable surplus" of foodgrains is an illusion: it is an effective demand surplus and not a genuine surplus. In a broader context, the sustainability of a high GDP growth of 8 per cent, we envisage for the next decade or so, is contingent upon agriculture posting a growth of 4 per cent, in sharp contrast to a growth rate of only 2 per cent recorded in the Ninth Plan. Such acceleration of agricultural growth needs to be supported by larger flow of agricultural and rural credit.

The second point relates to the employment situation. The current backlog of unemployment is around 9 per cent or equivalent to 35 million persons and this is far too high. On the basis of the then Prime Minister's vision of creating 100 million employment opportunities over the next ten years, the Tenth Plan has set a target of creation of 50 million jobs during the next five years. If this target is achieved, unemployment is likely to decline to some 5 per cent by the end of the Tenth Plan. To be able to realise this target, the focus will have to be on a wide range of sectors, such as agriculture and allied sectors, construction, tourism, transport, small-scale industries (SSI), micro-enterprises, retail trade and so on. The organised sectors like large and medium industries and the IT sector can do precious little to meet the enormous employment demand and hence the policy thrust will have to be on decentralised and broad-based growth. Larger flow of rural credit alone can facilitate such growth.

This brings us to the third point, namely, that rural credit in the coming years must look well beyond crop loans. We have already referred to the daunting task that India is facing of increasing food production by say 50 per cent in the next two decades. Against this background, fresh water has emerged as a key constraint on future agricultural growth, because of the tightening supply and rapid expansion of demand. The present Government has realised the critical importance of water: "Water is the lifeline of civilisations. We have been warned that the biggest crisis that the World will face in the 21st century will be the crisis of water".<sup>39</sup> Three inter-connected programmes assume prominence in this context: watershed development programmes; renovation of all the water bodies linked to agriculture, which have presently fallen into disuse, and rain water harvesting. Indian planners have begun to look to watershed development as a method to realise potential for agricultural development in rain-fed, semi-arid areas. Under-standably, the Green Revolution has by passed these areas which have witnessed hardly any growth in agricultural production for several decades. By capturing scarce water resources and improving management of soil and vegetation, watershed development has the potential to create conditions conducive to higher agricultural productivity. The new "Watershed Plus" approach to watershed development as spelt out in the Tenth Plan, seeks to ensure convergence of all other programmes that promote economic activities and generate increased employment opportunities. Watershed development both macro and micro, should have emerged as the major programme of agricultural growth and rural development. But even in Maharashtra, which has many success stories in this area to its credit, only 15 per cent of the potential eligible area is covered by such programmes. This is partly because the major preoccupation of policy-makers and the media is the more glamorous projects like inter-linking of major rivers in India. A recent field study of some watershed projects has revealed that those which take a more participatory approach and are managed by NGOs have performed better in conserving natural resources and raising agricultural productivity.<sup>40</sup> Such schemes should be launched on a massive scale.

Second, historically Indian agriculture has been sustained by natural and manmade water bodies such as lakes, tanks, ponds and similar structures. It has been estimated that there are more than a million such structures and about 50,000 of them are used for irrigation. Many of them have fallen into disuse, accumulating silt and need urgent repairs. The Budget for 2004-05 proposes a massive scheme to repair, renovate and restore all the water bodies

directly linked to agriculture. A Pilot project one in each district, would be launched straightaway at an estimated outlay of Rs. 100 crore.<sup>41</sup> This is indeed a good beginning in an entirely neglected area.

Third, rain water conservation and harvesting has important implications for the groundwater crisis that India is currently facing due to indiscriminate use of tube-well technology in different parts of the country. The Samaj Pragati Sahayog which has been working on watershed projects across 50 districts in 5 States, M.P. Chattisgarh, Jharkhand, Bihar and Rajasthan, has accumulated interesting experience in this sphere: "We find that dramatic improvements are possible in groundwater levels due to harvesting of rain water. The mud dams we make are like the current account that must be used, while keeping the capital account of ground water safe in the bank. For rainwater harvesting to be effective, careful attention must be paid to the uses to which the water is put. Water "intensive" crops must not be grown in drought-prone areas. Farmers should adopt drip irrigation".<sup>42</sup>

The thrust of policy in the coming years should therefore be on these three inter-connected programmes which, taken together, would go a considerable way towards reducing the degree of vulnerability of Indian agriculture to droughts and also towards reducing poverty.

#### *New Avatar of Rural Credit*

The main conclusion that emerges from this discussion is that even in the globalised banking scenario, priority sectors would continue to play a critical role in the growth and development of the Indian economy. The UPA Government is seeking to restore the pre-eminence of priority sectors on the development agenda. Particularly PSBs should re-address this issue of extending adequate credit support to priority sectors: lending to priority sectors is as important as lending to private corporate sector, or to exports or to capital market related activities.

If such lending has to be on an adequate scale and viable, the rural credit system has perhaps to take on, as it were, a new *avatar* both in terms of loan-portfolio and the credit delivery mechanism. PSBs would need to look beyond the conventional crop loans, important as these are, to areas linked directly or indirectly to agricultural and rural development. Issues relating to replenishing

water resources of arid and semi-arid regions discussed earlier, is a case in point. There are other issues like utilisation of wastelands and organic farming with organic seed and compost preparation.

Out of the estimated area of 107 million hectares of degraded land, 64 million hectare, are categorised as waste lands. Under the programmes envisaged in the Tenth Plan, all such lands under the control of Government or Panchayats would be parcelled out in viable units and allotted to landless scheduled caste and tribe farmers, small and marginal farmers, and educated rural youth, for cultivation. Besides, the wastelands, some of the areas under reserve forests area are also unutilised or under-utilised. The Tenth Plan envisages that local community access would be provided to grass and fodder cultivation from the forest area and the community would be encouraged to produce grasses and fodder and medicinal and aromatic plants in the under-utilised area under forest cover. These are illustrative of the wide range of activities in the rural sector, all of which would need credit support.

The second dimension of the new *avatar* is the mode of lending. Underlying the present sickness of the rural credit system are two causes: higher transaction costs and poor recovery performance. More recent experience has demonstrated that both these problems can be tackled effectively through the instrumentality of micro credit institutions. The experiment of micro finance through the conduit of Self-Help Groups (SHGs) has shown that transaction costs could be reduced drastically and repayment rates can be as high as 90 per cent. Both RBI and NABARD have been recently spear heading the promotion and linkage of SHGs to the banking system through refinance support and other proactive policies. Three models of credit linkage of SHGs with banks have emerged. SHGs formed and financed by banks, SHGs formed by NGOs but directly financed by banks; and SHGs financed by banks using NGOs as financial intermediaries. The programme initiated in 1992 covers, 31,000 rural outlets of more than 500 banks, with a loan portfolio of Rs. 2,000 Crore (end-March 2003). Thus the programme has enabled the formal banking system to reach 11.6 million poor households through the conduit of 7.17 lakh SHGs.<sup>43</sup> The role of micro credit as the most appropriate and economically feasible alternative in attaining the objectives of both growth and poverty alleviation is thus well established and the rural credit system - commercial banks, cooperatives and RRBs - must move towards spreading this model, and spreading it fast. The coverage of poor families today is modest: only 11.6 million poor families out of the total of some 58 million.

Secondly, uneven growth of micro finance in terms of regional distribution. As at the end of March 2003, of the total SHGs credit linked, Andhra Pradesh accounted for nearly 40 per cent. Taking the four states Andhra, Karnataka, Tamil Nadu and Uttar Pradesh, together, they accounted for nearly 70 per cent of total SHGs credit - linked and 80 per cent of the total amount of bank loans.

This model of reaching rural credit to different segments of the rural sector through the instrumentality of NGOs or SHGs should be also replicated in States other than those mentioned above. Of course, NABARD has been playing a catalytic role both in terms of promotional grant support to NGOs and nurturing SHGs. But this is not enough. PSBs, on their part should also make similar efforts to promote and nurture NGOs and SHGs: because, as we have seen earlier, such efforts would be mutually beneficial both to the lending institution and the beneficiaries of bank credit.

In this context, the initiative that a high profile private sector bank - ICICI Bank - has taken recently to widen its rural reach is worth noting. The Bank has entered into an agreement with Micro-Credit Foundation of India (MFI) which is involved with some 10,000 SHGs in Tamil Nadu. Under the agreement, MFI would extend finance for income-generating activities of the SHGs, which are expected to need about Rs. 1,250 crore, which ICICI Bank will lend through MFI. There is some risk sharing between ICICI Bank and MFI. ICICI plans to have similar tie-ups with other micro-finance institutions in other parts of the country.<sup>44</sup>

The problem with the cooperative credit institutions is not merely one of infusion of capital, which is no doubt necessary: but also of governance and professional management. The cooperative movement has lost its *elan* of yesteryears and today it lacks a sense of direction. The NPAs of urban cooperative banks are as high as 21 per cent. In fact the share of cooperative credit institutions in total rural finance has declined in recent years. The role of cooperative credit sector needs to be redefined in the context of financial sector reforms. Cooperative credit institutions particularly at the district level should also promote SHGs or utilize NGOs for their credit deployment. In other words, by adopting a similar paradigm of credit deployment as the bank-linked SHGs, cooperative credit institutions should be able to improve their overall performance, in terms of reducing transaction costs, improving repayment performance and reducing NPAs.

There is another aspect of the new paradigms of credit delivery. Panchayat Raj institutions are playing a major role in rural development at least in some States. For instance, in West Bengal and Kerala about 40 per cent of the annual plan outlay is disbursed through Panchayat Raj institutions. Commercial and Cooperative banks should begin to look at bankable projects sponsored by Panchayat Raj institutions. For instance, some panchayats may have sponsored watershed development projects and banks may usefully lend credit support to these schemes through panchayats. This mode of lending may also help in reducing transaction costs and improve repayment performance.

After inter-regnum of 12 years or so, the UPA Government has restored and rightly so, the preeminent position of priority sectors on the development agenda. Banks and other financial institutions must re-orient their operations to facilitate the growth of priority sectors by widening the loan portfolio and also by establishing linkages with panchayat raj institutions, NGOs and SHGs.

## **Resurrection of Rural Credit**

If the rural credit institutions find themselves in a moribund state today, this is largely attributable to the financial sector reforms introduced in the 1990s, as part of the process of liberalization and globalisation of the Indian economy. In the milieu of the new banking culture fostered by reforms, lending to agriculture or priority sectors generally, became unfashionable. The relative magnitude of the flow of credit to agriculture shrank and the interest rate regime which was designed to pamper the private corporate sector openly discriminated against agriculture. Even public sector banks (PSBs) merrily defaulted on the credit targets of 18 per cent of net bank credit to agriculture and 40 per cent of net bank credit to priority sectors. The Reserve Bank of India (RBI), which was obsessed with implementing the Basel norms as the main thrust of banking reforms, winked at the defaults. While the priority sector target has been attained during the last couple of years, the target for agriculture continues to remain unattained: lending to agriculture is around 15 per cent today, as compared to the target of 18 per cent of net bank credit. While highly rated corporate entities could raise money from banks or PSBs at interest rates as low as 6 or 7 per cent, the small farmer was required to pay a rate of 12 per cent. It was left to the Government of India to reduce the lending rate to small farmer to 8 per cent only in August 2003. RBI's neglect of agriculture and the rural sector generally was total during the 1990s: it failed to arrest the deterioration of the health of all institutions involved in rural credit: PSBs, Cooperative credit institutions and Regional Rural Banks (RRBs) – all of which showed high Non-performing Assets (NPAs). In other words, the financial sector reforms which were transplanted from the so-called Basel norms were ill-concerned and unrelated to the specific socio-economic milieu of the Indian soil, and they succeeded in creating an adversarial environment for rural credit. In fact the credit-deposit ratio of RRBs declined sharply over the 1990s, indicating a reverse flow of funds from the rural to the urban areas. Even RRBs were permitted to invest in the PSU bonds. No wonder, the annual average rate of agricultural growth decelerated sharply from 4.7 per cent in the Eighth Five Year Plan to only 2 per cent in the Ninth Plan. I have documented elsewhere in detail how the reforms fad led to the sickness of the rural credit delivery system, as a<sup>45</sup> whole.

It is indeed gratifying to note that the Tenth Five Year Plan endorses this view-point: "It is being evident, however, that the

organised financial sector in India is either unable or unwilling to finance a range of activities that are of crucial importance both for growth and development. Agriculture, unorganised manufacturing and services, and various types of infrastructure are instances of such sectors. The recent financial sector reforms have naturally focused primarily on improving the viability and stability of financial institutions without adequately addressing this issue. It is therefore necessary to consider methods of encouraging the financial sector to finance such activities, without impinging on its viability or compromising on prudential concerns.”<sup>46</sup> One thing should be made quite clear: it was not “inability” of banks because the banking system was highly liquid during the 1990s, with the credit – deposit ratio hovering around 50 per cent.

### *Why Resurrection?*

The configuration of circumstances at this point of time when the economy enters the third year of the Tenth Plan (2002-07) is such as to warrant the resurrection of rural credit. First, the magnitudes of future foodgrains requirements look quite formidable. Even modest projections of demand for cereals in 2020 place the estimate at 260 million tonnes, as compared to the production level of 187 million tonnes in 2001. The enormous gap to be bridged between demand and supply is obvious. Contemporary policy makers who make much ado about large foodgrains “surpluses” must realise that this sort of surplus is not a genuine surplus but is an effective demand surplus. It makes little sense to take pride in the fact that India exported 10 million tones of rice and wheat in 2003-2004, because such exports, are at the cost of a large, under-fed and under-nourished population. The same supply-demand gap holds true for most of non-foodgrains crops also. The point is that the sustainability of a high GDP growth of 8 per cent or so in the next decade is contingent upon agriculture posting a growth of 4 per cent, in sharp contrast to a growth rate of only 2 per cent recorded in the Ninth Plan; such acceleration in agricultural growth needs to be supported by larger flow of rural credit.

The second point relates to the employment situation. The current backlog of unemployment is around 9 per cent or equivalent to 35 million persons and this is far too high. On the basis of Prime Minister’s vision of creating 100 million employment opportunities over the next ten years, the Tenth Plan has set a target of creation of 50 million jobs during the next five years. If this target is achieved, unemployment is likely to decline to some 5 per cent by

the end of the Tenth Plan. To be able to realise this target, the focus will have to be on a wide range of sectors, such as agriculture and allied sectors, construction, tourism, transport, small-scale industries (SSI), micro-enterprises, retail trade and so on. The organised sectors like large and medium industries, IT sector can do precious little to meet the enormous employment demand and hence the policy thrust will have to be on decentralised and broad-based growth. Larger flow of rural credit alone can facilitate such growth.

This brings us to the third point, namely, that rural credit in the coming years must look well beyond crop loans. The Tenth Plan document itself provides some concrete programmes which would need rural credit support. The new “Watershed Plus” approach to watershed development seeks to ensure convergence of all other programmes that promote economic activities and generate increased employment opportunities. Conscious efforts to promote non-farm employment and increased land access for the landless, as well as promotion of Self-Help Groups, (SHGs) form part of the new approach. Then there is the issue of utilization of wastelands. Out of the estimated area of 107 million hectares of degraded land, 64 million hectares are categorised as waste lands. Under this programme, all such lands under the control of Government or Panchayats would be parceled out in viable units and allotted to landless scheduled caste and tribe farmers, small and marginal farmers, and educated rural youth, for cultivation. Besides the wastelands, some of the areas under reserved forests are also unutilized or under-utilised. It is envisaged in the Tenth Plan that local community access would be provided to grass and fodder cultivation from the forest area and the community would be encouraged to produce grasses and fodder and medicinal and aromatic plants, in the under utilized area under forest cover. Further, rainwater conservation and harvesting hold the key to sustainable development of rainfed areas. In fact this has implications for the groundwater crisis that India is currently facing due to indiscriminate use of tube-well technology in different parts of the country. The Samaj Pragati Sahayog which has been working on watershed projects across 50 districts in five States including M.P. Chattisgarh, Jharkhand Bihar and Rajasthan, has accumulated interesting experience in this area: “We find that dramatic improvements are possible in groundwater levels due to harvesting of rain water. The mud dams we make are like the current account that must be used while keeping the capital account of ground water safe in the bank. For rainwater harvesting to be effective, careful attention must be paid to the uses to which this water is

put. Water intensive crops must not be grown in drought-prone areas Farmers should adopt drip irrigation.”<sup>47</sup> Watershed development, both macro and micro, should have therefore emerged as the major programme of agricultural growth. But even in Maharashtra, which has many success stories in this area, only 15 per cent of the total eligible area is covered by such programmes. This is partly because the major pre-occupation of the policy makers and the media is the more glamorous projects like inter-linking the major rivers in India.

Furthermore, there is organic farming, with organic seed and compost preparation.

Most of these thrust areas of rural development, as envisaged in the Tenth Plan, need credit support and hence the loan-portfolio of rural credit institutions should begin to reflect the more diversified credit support extended to these emerging areas. Parenthetically, it should be added that credit would be playing the risk-reducing role in respect of agriculture, especially credit extended to water-shed development or rain water harvesting and conservation. We take pride in circulating to commercial banks risk management models, copied from the Basel models but this dimension of risk-reducing role of credit is hardly appreciated.

### **New Avatar of Rural Credit**

The resurrection of rural credit would also necessarily warrant that the system should take on, as it were, a new *Avatar* not only in terms of diversification of loan-portfolio, but also in terms of the credit delivery mechanism. Underlying the present sickness of the rural credit system are two core causes: high transaction costs and poor recovery performance. More recent experience has demonstrated that both these problems can be tackled effectively through the instrumentality of micro credit institutions. The experiment of micro finance through the conduit of Self-Help Groups (SHGs) has shown that transaction costs could be reduced drastically and repayment rates can be as high as 90 per cent. Both RBI and NABARD have been recently spear heading the promotion and linkage of SHGs to the banking system through refinance support and other proactive policies. Three models of credit linkage of SHGs with banks have emerged. SHGs formed and financed by banks, SHGs formed by NGOs but directly financed by banks; and SHGs financed by banks using NGOs as financial intermediaries. The programme initiated in 1992 covers, 31,000 rural outlets of more than 500 banks, with a

loan portfolio of Rs. 2000 Crore (end-March 2003). Thus the programme has enabled the formal banking system to reach 11.6 million poor households through the conduit of 7.17 lakh SHGs.<sup>48</sup> The role of micro credit as the most appropriate and economically feasible alternative in attaining the objectives of both growth and poverty alleviation is thus well established and the rural credit system – commercial banks, cooperatives and RRBs – must move towards spreading this model, and spreading it fast. The coverage of poor families today is modest: only 11.6 million poor families out of the total of some 58 million. Secondly, uneven growth of micro finance in terms of regional distribution. As at the end of March 2003, of the total SHGs credit linked, Andhra Pradesh accounted for nearly 40 per cent. Taking the four states Andhra, Karnataka, Tamil Nadu and Uttar Pradesh, together, they accounted for nearly 70 per cent of total SHGs credit – linked and 80 per cent of the total amount of bank loans.

This model of reaching rural credit to different segments of the rural sector through the instrumentality of NGOs or SHGs should be replicated in States other than these mentioned above. Of course, NABARD has been playing a catalytic role both in terms of promotional grant support to NGOs and nurturing SHGs. But this is not enough. PSBs, on their part should also make similar efforts to promote and nurture NGOs and SHGs: because, as we have seen earlier, such efforts would be mutually beneficial both to the lending institution and the beneficiaries of bank credit. But one looks in vain for such initiatives in the “Banking Industry Vision 2010” document prepared by the Indian Banks’ Association (IBA). It is unfortunate that document does not even take consizance of the problems of rural branches, of inability to meet the target for agricultural credit, despite low credit-deposit ratios. For the IBA, God is in heaven and everything is alright with rural credit. The document is content with mouthing empty rhetories about market theology. The banking system is expected to reorient its approach to rural lending. “Going Rural” could be the new market *mantra*. Rural market comprises 74% of the population, 41% of Middle class and 58% of disposable income..... Banks’ approach to the rural lending will be guided mainly by commercial considerations in future..... Rural financial system (should) emerge as “one stop destination” for all types of credit requirements of people in rural/ semi-urban centers”.<sup>49</sup> This is another instance of the new banking culture fostered by banking sector reforms. RBI and NABARD will therefore have to sensitise PSBs to participate actively in their endeavour to bring the micro credit into the mainstream of the rural

financial system. On its part, IBA seems to be bereft of ideas. In contrast, look at initiatives that a high profile private sector bank ICICI Bank – which has engaged a super-star as its brand ambassador at a hefty fee – has taken recently to widen its rural reach. ICICI Bank has entered into agreement with Micro-credit Foundation of India (MFI), which is involved with some 10,000 SHGs in Tamil Nadu. Under the agreement MFI would extend finance for income-generating activities of the SHGs, which are expected to need about Rs.1250 crore which ICICI Bank will lend through MFI. There is some risk sharing between ICICI Bank and MFI. ICICI plans to have similar tie-ups with other micro-finance institutions in other parts of the country.<sup>50</sup>

The problem with the cooperative credit institutions is not merely one of infusion of capital, which is no doubt necessary: but also of governance and professional management. The cooperative movement has lost its *elan* of yesteryears and today it lacks a sense of direction. The NPAs of urban cooperative banks are as high as 21 per cent. In fact the share of cooperative credit institutions in total rural finance has declined in recent years. The role of cooperative credit sector needs to be redefined in the context of financial sector reforms. Cooperative credit institutions particularly at the district level should also promote SHGs or utilize NGOs for their credit deployment. In other words, by adopting a similar paradigm of credit deployment as the bank-linked SHGs, cooperative credit institutions should be able to improve their overall performance, in terms of reducing transaction costs, improving repayment performance and reducing NPAs.

There is yet another dimension to the new paradigm of credit development. Panchayat Raj institutions are playing a major role in rural development at least in some States. For instance, in West Bengal and Kerala about 40 per cent of the annual plan outlay is disbursed through Panchayat Raj institutions. Commercial and Cooperative banks should begin to look at viable projects sponsored by Panchayat Raj institutions. Lending to these institutions may also help to reduce transaction costs and improve repayment performance.

### **Good Governance**

Good governance in rural financial institutions is a critical determinant of the success of rural development programmes. Today availability of resources is not acting as a constraint on larger flow

of rural credit but inefficient management. Commercial banks have been highly liquid for the last decade or so and yet they have not succeeded in meeting the credit target for agriculture. Secondly, take the case of utilization of funds under Rural Infrastructure Development Fund (RIDF). The Fund was originally set up with NABARD in 1995-96 with a corpus of Rs. 2000 crore with the major objective of providing funds, to state Governments to enable them to complete on-going infrastructure projects pertaining to irrigation, flood protection, rural roads and bridges. The scope of RIDF has been progressively widened to include lending to Gram Panchayats, Self-Help Groups for implementing village level infrastructure projects. Although the total corpus under RIDF adds up to Rs. 34,000 crore as of 2002-03, the overall utilization of these funds is dismal at 58 per cent. In fact the percentage of utilisation declined to 40 and 18 per cent in 2002 and 2003. Are the reconnaissance efforts of NABARD to identify eligible projects unsatisfactory? Or, are the States indifferent to rural development? One begins to wonder.

Take another example of rural administration. The Food for Works Programme was started in 2000-01 aiming at augmenting food security through wage employment. Foodgrains were supplied to States under this programme free of cost. Unfortunately, the record of lifting of foodgrains allotted for the scheme from the Food Corporation of India (FCI) has been very disappointing. For instance, against the allocation of 35.31 lakh tones of foodgrains, only 21.26 lakh tones were lifted by target states upto January 2002. Was the Center not persuasive enough? Or, do the States need to be sensitized about the misery of poverty, unemployment and the state of semi-starvation?

This case is particularly relevant, if we want to utilize the huge surpluses of foodgrains with FCI for rural development. A scheme of “grain loans” could be devised by which all financial institutions involved in rural development could augment their financial resources by drawing on such “grain loans,” from FCI.<sup>51</sup>

### **Concluding Comments**

Financial Sector reforms introduced in the 1990s created an adversarial environment for rural credit, as a result of which the rural credit system finds itself in a moribund state today. As the economy enters the third year of the Tenth Plan, the configuration of circumstances is such as to warrant the resurrection of rural credit. To facilitate broad-based and decentralized growth, the rural credit

system would have to take on a new *Avatar*: the micro finance segment has to be integrated with the mainstream rural finance sector by appropriate linkages of banks/cooperatives with SHGs and NGOs. Loan-portfolio's of rural credit institutions would be more diversified by stretching their operations beyond the conventional crop loans, and transactions with Panchayat Raj institutions would multiply. Good governance will be an important input to upgrade the efficiency of all financial institutions involved in rural development.

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This is the edited version of the Inaugural Address, delivered on March 19, 2004 at the Workshop on "Agricultural Finance: Past Perspectives and Future Reforms", organized by Gokhale Institute of Politics and Economics, Pune.

## **Section X**

### **Concluding Observations : Areas Warranting Action**

Emerging from this enquiry, the main areas in which action is needed could be briefly summed up.

1. At the outset there is a need to de-brief public sector bankers about the new banking culture they have acquired during the financial sector reforms phase of the 1990s. It should be dinned into the ears of these bankers that lending to agriculture and related sectors, as spelt out in this paper, is as important as lending to the three “Cs” – corporate elite, consumer durables and capital market related activities. Fortunately, the National Common Minimum Programme (NCMP) of the UPA Government has already gone some way towards changing the mindsets of bankers. Both RBI and NABARD could impress upon PSBs that priority sectors would continue to be critical in India’s future growth and development.

2. The present guidelines issued by RBI on risk assessment and management are inappropriate for agriculture and rural sectors generally. RBI jointly with NABARD could set up a Working Group to evolve, in the light of the risk philosophy outlined in this paper, appropriate guidelines for rural lending by commercial banks, cooperative credit institutions and RRBs. The Guidelines should, among others, identify agriculture and related sectors or sub-sectors to which credit – short, medium, and long-term – needs to be extended. There should be prioritisation among sectors and sub-sectors for the purpose of identifying those that deserve concessional lending. The PSBs should diversify their loan portfolio by extending their reach to a whole range of sub-sectors discussed in this paper. This is one aspect of the new avatar that the rural credit system has to take to meet the new challenges. The second aspect of the avatar is the new architecture of the credit delivery system. The preferred mode of lending to different sectors or sub-sectors – either directly or through NGOs and SHGs – may also be spelt out.

3. The Guidelines should also stress the pro-active role that bank and other lending institutions should play in translating the enormous potential demand for institutional credit in the rural sector into effective demand. They should explore and identify such potential demand for credit and assist in giving a concrete shape to such demand by converting it into credit worthy projects. Several of

the new segments discussed in the paper need such initiatives by bankers. Rural credit expansion has to be, as in the past, supply-led and not so much demand-derived.

4. In the immediate future rural lending should be water-centric. In fact the concept of food security has been recently widened to include access to adequate water. Three inter-connected programmes have been discussed in the paper: watershed development programme, both micro and macro, renovation of all the water bodies linked to agriculture, which have fallen into disuse presently; and promotion of rain water harvesting and conservation technologies. Programmes designed to promote water use efficiency should also form an integral part of this exercise.

5. NABARD is ideally suited to take a lead in providing a big boost to such water-centric programmes. NABARD in collaboration with State Governments and Panchayat Raj institutions could organize the preparation of a blue print for micro watershed development and related projects in all the districts in the arid zone. The year 2006 could be designated as the “Year of Water Resource Regeneration” for the purpose of implementing simultaneously this cluster of projects. NABARD could coordinate the financing of these projects and in fact could underwrite these projects.

6. While production risk in agriculture could be reduced through water-centric programmes, repayment risks faced by rural lending institutions could be reduced through evolving a new architecture of the rural credit delivery mechanism. Both RBI and NABARD have been, in recent years, spearheading the promotion and linkage of SHGs to the banking system through refinance support and other proactive policies. Focus should be on spreading this model of rural financing and spreading it fast.

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