Independent Expert Panel

Action Plan to Address Agrarian Distress in India

Report to the

National Bank for Agriculture and Rural Development (NABARD)

New Delhi, January 2008

The panel to look into the Agrarian Distress of Affected Districts in India was appointed by the National Bank for Agriculture and Rural Development (NABARD). The financial support of NABARD's Rural Innovation Fund and of the Swiss Agency for Development and Cooperation is gratefully acknowledged.

Letter of Transmittal

February 4, 2008

Dear Shri Sarangi

We take great pleasure in attaching the Report of the Expert Panel to look into the Agrarian Distress in affected Districts in India. We would like to thank NABARD and SDC for assigning us this task of coming out with an implementable action plan to address the issues facing the agrarian sector.

The panel has approached this task by trying to be as realistic and practical as possible given the complexity of the issues. We sincerely hope that this report will get the due attention of the policy makers and would be implemented early.

We would like to thank the offices of NABARD, SDC and several other individuals who took time off to share with us their thoughts and in the process helped us to crystallize the recommendations.

With regards

M S Sriram

Member, on behalf of the Expert Panel

Shri. Umesh C Sarangi

Chairman

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Acronyms

AICI Agriculture Insurance Company of India

AML Agro-Metrological Laboratories

AP Andhra Pradesh BoI Bank of India

CSA Centre for Sustainable Agriculture
CSR Corporate Social Responsibility

DICGC Deposit Insurance and Credit Guarantee Corporation

ETC Ecological Training Consultancy
FARM Fund for Agricultural Risk Mitigation
FCIC Federal Crop Insurance Corporation
FIBL Research Institute of Organic Agriculture

GM Genetically Modified

GMO Genetically Modified Organisms

GoI Government of India HYV High Yielding Variety

IDEI International Development Enterprises, India

IIM Indian Institute of Management

IIRD Institute Integrated Rural Development

IKP Indira Kranti Patham

INR Indian Rupees

IPMAS Integrating Poor into Market Systems
MOFF Maharashtra Organic Farming Federation

NABARD National Bank for Agriculture and Rural Development

NAIF National Agricultural Insurance Fund NAIS National Agricultural Insurance Scheme

NCAP National Centre for Agricultural Economics and Policy Research

NGOs Non-Governmental Organisations

NPA Non-Pesticide Agriculture

NREG National Rural Employment Guarantee

OTS One-Time Settlement PB Pragati Bandhu

PGS Participatory Guarantee System

PM Prime Minister
RCL Rice Credit Line
ROI Return on Investment

RUDSETI Rural Development Self-Employment Training Institute SDC Swiss Agency for Development and Co-operation

SERP Society for Elimination of Rural Poverty SEWA Self-Employed Women's Association

SHGs Self-Help Groups

SKDRDP Shri Kshetra Dharmasthala Rural Development Programme

SLBC State Level Bankers' Committee S/M Small and marginal (farmers)

ToRs Terms of Reference

VKC Village Knowledge Centre

Table of Contents

E	xecutive Summary	5
1.	Background	8
2.	Approach	8
3.	Analysis of the Existing Situation	9
4.	Short Term Measures	. 10
	4.1 Finance:	. 10
	4.2 Risk Mitigation	. 13
	4.3 Social Support Mechanisms	. 16
	4.4 Farm Practices	. 21
5.	Medium term Implementation Points	. 28
	5.1 Financial Management	
	5.2 Risk Mitigation:	. 29
	5.3 Social Networks	. 31
	5.4 Sustainable Agriculture	. 32
6.	Outlook	. 33
A	nnexes	
	Terms of Reference (ToR)	. 34
	List of 100 Agriculturally Less Developed and Distressed Districts	. 38
	Guidelines for Management of Allocations to be Made by Government of India to NABARI	D
	for Social Capital Building and Farm Practice Improvement Interventions	
	To a color control and a min i more amprovement interventions	

Executive Summary

Background

The Government of India and the Reserve Bank of India have in the past appointed a number of Committees/Expert Groups to address issues relating to the agrarian distress. The committees have given recommendations which range from fundamental changes to the system, to legal reform and financial packages. This Panel was formed to prepare an implementable action plan, based on the recommendations contained in these Reports.

Framework

Based on this mandate, the Panel proposes measures (1) with a short term (one year) to medium term (4 years up to the end of the 11th Five-year plan period in March 2012) horizon; (2) drawing on and scaling up positive and field proven experiences to ensure implementability; (3) with a focus on the financial sector; (4) with a perspective of an all-India roll-out. Where this was not feasible in the short or medium term, it relied on the geographical classification of distress as indicated in the Committee on Agricultural Indebtedness [Radhakrishna Committee] report, which identified 100 districts as agriculturally backward or distressed. Included amongst these 100 districts are 31 districts where the Prime Minister's special rehabilitation package is being implemented.

Analysis & overview

Agrarian distress is a manifestation of multiple causes and substantial change is needed to address it in a meaningful way. The Panel's analysis offers solutions on four broad themes identified as (1) Financial Management; (2) Risk Mitigation; (3) Social Support Mechanisms; (4) Farm Practices. The measures proposed require a strong financial backing by the GoI with an allocation of estimated Rs. 14,523 crore in 2008-09. Of this amount Rs.1,720 crore have to be provided as Funds in NABARD; Rs.1,000 crore to be allocated to AICI and Rs.565 crore to IMD for undertaking activities pertaining to agricultural risk mitigation and crop insurance. A major chunk of the above amount would be utilized in 2008-09, but some allocations will be staggered to cover additional expenditure during the remaining four years of the 11th five-year plan period.

Summary short-term recommendations for GoI Budget FY 2008/09

Instrument	Instrument Beneficiaries I		Implementing	Cost estimate
	(locations,	channels	institutions	Rs.
	people)			
Financial Manag	ement			
(A) One- Time	Farmers of 31 Dists	Losses to be	Banks, Regional	GoI 40% for
Settlement	would get OTS if	borne by	Rural Banks	all India
Scheme for	they pay 10% of the	banks, state	and Co-	11,000 Cr
Formal Sector	original loan.	and federal	operatives.	(+ State Govts
Loans	Farmers of 69	Government in		all India 40%
	districts pay 30%; in	the ratio of		11,000 Cr)
	other parts they pay	20:40:40		(+ Banks 20%
	70%.			5,500 Cr)
(B) Debt swap	Anybody eligible	No outlay	Public and	No outlay

scheme for informal sector loans.	informal sector SHG eligible for a		Private Sector Banks	required
(C) Credit Guarantee Scheme All farmers seeking loans less than Rs.3 lo		Banks to pay premium	DICGC	No outlay required
Risk mitigation	1	I	1	
(D) Crop Insurance • Fund for Agricultural Risk Mitigatio	Drought-prone and flood-prone areas	AICI	AICI	1,000 Cr
• Agro- Metrological Laboratories (AML)	31 districts	GoI	IMD	15 Cr.
 Management of AML Subsidy on	31 districts 31 districts,	GoI	Panchayats/VKC	Cs 0.10 Cr.
premium	farmers	GoI	AICI and Banks	6 Cr
Social networks	<u> </u>	1	1	
(E) Pragati Bandhu Groups	Mshtra 8 lakhs farmers/6 districts, Ktaka 9 lakhs farmers/6 districts	From GoI allocation through NABARD	SKDRDP. RUDSETI centre other NGOs	112 Cr
(F) Raithu Mitra Groups	AP (less areas already covered) 46 lakhs farmers/16 districts		SERP in AP, Ag. depts & SERP-ty institutions	
(G) Debt Counseling Mshtra 8 lakh farmers /6 districts AP 49 lakh farmers/16 districts Ktaka 9 lakhs/6 districts, 138 lakhs farmers/72 remaining distressed districts		allocation to NABARD and thence	Bank of India and other banks, NGC and other suitable implementing institutions	Os
Farm practices				
Resources the 100 distressed		GoI allocatn thru NABARD	e.g IDEI	400 cr grant 400 crs credit
(I) Sustainable Agriculture				
■ NPA	AP, Maharastra,		e.g.CSA	Rs. 26 cr
■ PGS	Punjab 10 lakhs farmers in Maharastra	NABARD Allocation	e.g.MOFF	Rs. 1,000 crgrant Rs. 400 cr credit

-	Organic	0.75 lakhs farmers			
	certified	in Dindigul,	NABARD	e.g.ETC	Rs. 75 cr grant
		Madurai, Dhule	Allocation		Rs.30 cr credit

Medium term suggestions

"Agrarian" distress is only a part of the problem. Pressures that push the people towards poverty are health, and social expenses, apart from the failure of investments in business (including farming). Medium term initiatives that should be rolled out on a national scale include (1) Mechanisms to strengthen food security at the household level, (2) regulatory mechanisms for inputs like seeds, (3) risk mitigation at both the personal as well as the professional level, (4) relief for failure of investments like failed wells, (5) reducing vulnerability on account of ill-health. Our recommendations for weather stations cover one of the main problems in agricultural risk mitigation, which is the absence of adequate infrastructure to provide reliable information about fluctuation in weather parameters. More public investment is needed in extension services, training and research to promote organic agriculture. Village knowledge centres which can be a one stop shop for all support services needed by the farmers will have to play a strong role in future.

Summary of Medium term Recommendations

Instrument	Beneficiaries	Funding	Implementing	Cost estimate
		channels	institutions	(Rs.)
Crop loss estimates	Insurance	Central	ICAR, ISRO,	50 cr
for developing	Companies	Government	NRSA	
insurance products				
Establishing AMLs	First 69	Central	IMD	550 cr
	distressed	government		
Management of AML	districts [by	State	VKCs	11.23 cr
	2012], later	governments		
Subsidy on premium	throughout	Central	AICI and	120 cr
	the country	government	Banks	

Outlook

Addressing short and medium term pressure points in the professional and personal space are important but not sufficient to eliminate agrarian distress. Broadening access to land, protecting long term productivity through sustainable farming methods and the restoration of biodiversity, strengthening cooperation among farmers, but also making use of contract farming and corporate farming are effective long term means against agrarian distress for small farmers who are often forced to think only in the short term. Public investments in agricultural research, counseling services, training and infrastructure are imperative. Subsidies which address the pressure points of agrarian distress through safety nets and support systems are more encouraging and less costly than direct doles and write offs. A key step is to go beyond agriculture to expand livelihood opportunities. Non-farm employment also reduces Agrarian Distress and slows down rural – urban migration. Our recommendations for immediate implementation should receive due attention, but we strongly believe that the implementation of medium and long term solutions has also to begin immediately.

1. Background

The Government of India and the Reserve Bank of India have in the recent past, appointed a number of Committees/Expert Groups to address the agrarian distress in the country, notably

- Committee on Financial Inclusion chaired by Dr C.Rangarajan
- Expert Group on Agricultural Indebtedness, chaired by Dr Radhakrishna.
- Expert Group on Agricultural Distress chaired by Dr S.S.Johl.
- National Farmers Commission headed by Dr M.S.Swaminathan.
- Expert Group on Credit Deposit Ratio, Chaired by Dr Y.S.P.Thorat.
- Sub-Group on Institutional Credit for the 11 Five-year Plan.

All these committees have given detailed recommendations which range from fundamental changes to the system, to legal reform and financial packages. The Expert Panel was formed with a view to prepare an implementable action plan, based on the recommendations contained in these Reports. The terms of reference (ToRs) of the Panel are attached in Annexure 1. This report is based on the deliberations of the Panel and the conclusions arrived thereon. The ToRs clearly indicate that the report should:

- Have a short to medium term horizon.
- Be implementable.
- Be rooted in the financial sector.

The Panel translated "short term" into a one year perspective. "Medium term" covers four years, coterminous with the 11th Five-year plan period ending March 2012.

The Panel decided that "implementable" recommendations would necessarily be those which involve the scaling up of existing positive and field proven experiences, rather than totally new initiatives, and those for which proven institutional capacity already exists. The Panel identified the implementing agencies, the methodology of implementation of its recommendations and the expected financial outlays.

While the Panel acknowledged the sharp focus given in the ToRs, it also recognized the fact that there were several other factors that lead to distress and an exclusive focus on finance would only provide a partial solution. Therefore, the Panel in places moved beyond the terms of reference to indicate other areas where an intervention was desirable. However the report is generally rooted in the financial sector.

2. Approach

The approach was largely determined by the mandate laid down in the ToRs and the limited time available. Five steps were taken:

1. The Panel perused the reports submitted by the various committees and examined the recommendations to see whether these were implementable immediately [within one year]; and if there was an institutional mechanism to implement the

- recommendations. All other recommendations that required significant institutional change were listed as issues to be addressed in the medium term.
- 2. Some Panel members visited the field to observe and understand some existing innovative measures. Their findings were built into the recommendations.
- 3. The Panel members individually contacted a number of experts and institutions to understand the issues at stake better and explore options for a follow up.
- 4. The Panel met three times, each for several days, between November 2007 and January 2008 to deliberate on the issues. Individual members focused on sub-themes and the report was collated centrally. The draft report was presented and discussed with the Chairman and representatives of the finance ministry before finalization.
- 5. Each recommendation was examined to see if it was implementable and scalable.

3. Analysis of the Existing Situation

The committees that have gone into the issue of agrarian distress, indebtedness, access to financial services and financial inclusion have analysed many issues and made several recommendations. There is also ample literature on this matter. While farmer suicides are an extreme manifestation of distress, the issues that lead to suicides may be simmering in other areas. In approaching the issue, the Panel went by the geographical classification of distress indicated in the Committee on Agricultural Indebtedness [Radhakrishna Committee] report. The report identifies 100 districts within the country as agriculturally backward or distressed on certain criteria [Details in Annexure 3]. Amongst these 100 districts is a subset of 31 distressed districts identified by the Government where the Prime Minister's special rehabilitation package is being implemented.

While it is widely accepted that agrarian distress has led to a large number of farmer suicides, the list contained in the Radhakrishna Committee report does not for example, have any districts from Punjab where there have been reports of suicides. It is important to keep this in perspective. While the prioritization of the measures suggested in this report could be implemented according to the distress classification provided by the Radhakrishna Committee, the Panel recognized that problems exist in other districts and measures to prevent a distress situation in other areas had to be taken. The Panel would like to recommend that these measures be taken with a nationwide perspective.

Distress is a manifestation of multiple causes. Several studies indicate that distress need not necessarily be related to extreme poverty (Gill and Singh 2006¹, Satish, 2006²). Studies by Krishna, (2003)³ indicate that the reasons [such as crop failure, health, litigation] for distress or for slipping back into poverty could be different from the reasons [such as livelihood diversification] for escaping poverty.

¹ Gill, Anita and Singh, Lakhwinder (2006): Farmers' Suicides and Response of Public Policy: Evidence, Diagnosis and Alternatives from Punjab. *Economic and Political Weekly, June 30, 2006*.

² Satish P (2006): Institutional Credit, Indebtedness and Suicides in Punjab. *Economic and Political Weekly. June 30, 2006.*

³ Krishna, A. (2003): Falling into Poverty: Other Side of Poverty Reduction. *Economic and Political Weekly*, Vol. 6, pp. 533-542.

The important means for addressing agrarian distress were classified into the four themes:

- Finance management, indebtedness, and terms of credit
- Risk and risk mitigation
- Support systems and social networks
- Farm practices that lead to distress, and changes to these practices.

The recommendations are on four themes identified above. These recommendations are divided into three parts. The first part deals with initiatives which can be implemented in a year. The second part has issues that need to be addressed with a plan that will be coterminous with the 11th five year plan, but the implementation has to start immediately. The third part has concerns that are to be addressed, but may be beyond the ToRs.

4. Short Term Measures

The short term measures are classified under four themes discussed below. The outlay would entail a total of Rs. 13,792 crore. Of this Rs.11,000 crore is for financial management [OTS], Rs.1,022 crore for risk mitigation [Rs.1006 crore to AICI for a risk mitigation fund and Rs.6 crore for subsidy on insurance premiums], Rs.270 crore for promoting social networks and support systems [of which Rs.61 crore for debt counseling services]; and Rs.1,500 crore for promoting sustainable agriculture, to be allocated and channeled through NABARD. In addition, the states and banking system will have to provide an amount of Rs.11,000 crore and Rs.5,500 crore respectively towards OTS.

4.1 Finance:

The immediate measures to be taken in places where farmers are already distressed, irrespective of the causes of distress are discussed at the outset. Firstly we have to examine the state of indebtedness of households. Studies have shown that in most suicide cases about 75% of the indebtedness of the family was to informal rather than formal sources. While the general policy push is to increase credit, the increase has happened in terms of volume, while the number of accounts has reduced. The All India Debt and Investment Survey reports also show that the relative share of informal sources in overall indebtedness increased over the last decade. A reason for lesser accounts being serviced might be because old defaults still exist in the books of the bank.

In addressing the large scale default resulting from distress, one obvious measure is to write off loans. A large loan waiver scheme is unlikely to make a great impact on the lives of the farmers, unless it is followed up by the next dose of credit for continuing agriculture and for shifting borrowings from the informal sector. The Panel recommends a one time settlement scheme to clean farmers' formal sector accounts as a first step.

(A) One-Time Settlement [OTS] Scheme for Formal Sector Loans

Usually the response from the financial sector towards to a distress situation starts by restructuring loans. The Prime Minister's relief package includes loan restructuring and

rescheduling as well as waiver of interest. Rescheduling and restructuring only postpone and increase the problem, and rely on increased future productivity to service the increased debts. Households need more than loan restructuring to recover from distress. Therefore the Panel recommends an OTS scheme.

The specifics of implementation of this scheme are:

- Regions to be pre-identified [as per Radhakrishna Committee report]
- The settlement will be undertaken by the respective banks [commercial and RRBs] and co-operatives formal financial institutions operating in the area.
- The settlement ensures that the borrower's account will be cleaned; s/he would not be treated as a defaulter and will thus be eligible for a fresh loan.
- The banks/co-operatives will be compensated for the loss suffered on account of the settlement. The amount of compensation will be to the extent of the prudential write off/provisioning that would have been taken into the expenses side of the bank's income statement, had the rescheduling or restructuring not happened.
- The indebted household will pay at least a small margin of the originally borrowed amount as a token contribution to the OTS. Banks will be free to insist on a higher margin if they find merit in doing so.
- Banks/co-ops will be compensated only if they declare that a farmer who has got an OTS has been granted a fresh loan not less than the amount previously borrowed.
- The burden on the exchequer to be borne by the Bank/Co-operative, Central and State governments in the ratio of 20:40:40.

As this scheme puts the onus of both write off and granting of a further loan on the banks, it would be more effective than a write off. The banks will have to own up to grant the next loan and would be expected to do this responsibly by taking a call on each account.

The total agricultural loan overdues of farmers is estimated at Rs.70,000 crore, of which Rs.31,000 crore is estimated to be classified as non-performing assets. If a farmer is to be eligible for a loan, the account should not be classified as an overdue account. Therefore a three stage sharing formula is applied for addressing this issue in different regions.

- In the 31 districts identified for the Prime Minister's relief package, the minimum amount to be paid by the farmer in order to be eligible for seeking relief to be pegged at 10% of the original loan amount.
- In the other 69 districts identified by the Radhakrishna Committee the minimum margin amount to be paid by the farmer to be kept at 30% of the original loan amount
- For all other districts in the country, the margin amount to be paid by the farmer to be eligible for the package to be pegged at 70% of the original loan amount.

The banks will be free to modify these limits upwards and go in for an OTS at any level of settlement. In such cases the banks will be compensated only to the extent of relief based on the actual losses in the ratio specified above. If we strictly go by the above estimates, and by a rough calculation [given that district wise data is not available] the total cost to the system would be around Rs.27,500 crores of which the banking system as a whole would bear 5,500 crores and the exchequer central and state governments respectively will bear Rs.11,000 crore each.

(B) Debt swap scheme for informal sector loans.

In addition to the above settlement, the Panel recommends a debt swap scheme to redeem high cost money-lender debt. While this does not reduce indebtedness of the households, it makes the payment terms less onerous. The team that visited Andhra Pradesh (AP) saw two such schemes in operation. The first scheme is approved by the State Level Bankers' Committee [SLBC] and covers individual farmers. The details are as follows:

- It covers existing borrowers and non-borrowers
- The upper limit for existing borrowers will be 50% of the credit limit on crop loans enjoyed in the past with a cap of Rs.50,000. For new borrowers the limit is equivalent to a Kisan Credit Card limit based on cropping pattern or scale of finance and 50% of that limit for debt swapping, with a cap of Rs.25,000 for debt swapping.
- The scale of finance under KCC should be reviewed periodically to ensure adequacy
- The dues to the non-formal lender will be settled directly by the bank through a cheque and not handed to the farmer.
- The rate of interest will be the rate applicable to agricultural term loans.
- This could be reported as agricultural term loans for claiming priority sector credit.
- Repayable in half yearly installments [where there are two crops] and annual installments [in single cropped areas].
- Security by hypothecation of crops and third party guarantee. No collateral is sought.

The second scheme is operated under the Indira Kranti Patham [IKP] programme. Self Helf Groups [SHGs] get loans up to Rs 5 lakhs, of which up to 50% can be for debt swap. An amount of Rs 300 crores is already advanced. The highlights of this scheme are:

- No written evidence of an existing loan is needed; it is assumed that SHG members will ensure that loans are utilized properly.
- This is on one-off basis, once per member. The total loan to the SHG is repayable in 36 months, whereas the members repay the SHG in 20 months. The 16 month cushion enables the SHG to help members to avoid future borrowing from moneylenders.

The Panel found the schemes to be effective and no changes were proposed. The schemes should be implemented in all the districts. The schemes are cash neutral to the exchequer. The Reserve Bank should issue circulars to implement such a scheme and SLBCs are to be notified. These loans should be treated as agricultural term loan [for scheduling and pricing]. Banks should be eligible for priority sector benefits. As interest will be pegged at term loan rates there would be no need for provision of subvention. However, this might have an implication on the liquidity available in the banking system. NABARD will have to provide the necessary refinance for meeting this need. The state governments that have been providing back-ended interest rate subsidy may continue to do so.

(C) Credit Guarantee Scheme

The Working Group on Distressed Farmers [Johl Committee] suggested that in addition to the above measures a credit guarantee scheme be introduced. The erstwhile scheme operated by Deposit Insurance and Credit Guarantee Corporation [DICGC] provided for

guarantees, on a voluntary basis for the credit institution, of credit given to farmers. Subsequently, based on a comprehensive review the Reserve Bank proposed to drop the guarantee schemes as they had, accomplished the objectives for DICGC entails a premium payment of 1.40% per annum. The DICGC in turn guarantees to compensate the banks to the extent of 75% of the loan amount subject to a ceiling of Rs.1 lakh per borrower. This compensation would be available in areas where there is a second consecutive distress year. However, the panel recommends that this scheme should apply soon after declaration of a distress and before reschedulement. The panel is of the view that no reschedulement of loans should be resorted to, as it only postpones a problem and any distress should be addressed immediately through a mechanism of insurance, use of risk mitigation fund and credit guarantee.

Summary recommendations for 4.1 Financial Management

Instrument	Beneficiaries (locations,	Funding	Implementing	Cost estimate
	people)	channels	institutions	Rs.
(A) One-	Farmers of 31 Districts	Losses to be	Banks,	GoI 40% 11,000
Time	would get OTS if they	borne by	Regional	cr;
Settlement	pay 10% of the original	banks, state	Rural Banks	(+ State Govts
Scheme for	loan amount. Farmers	and federal	and co-	40% 11,000 Cr)
Formal	of 69 districts pay	Government	operatives.	(+ Banks 20%
Sector Loans	30%; in other parts they	in the ratio		5,500 Cr)
	pay 70% to be eligible.	of 20:40:40		
(B) Debt	Any cultivator eligible	No outlay	Public and	No outlay
swap scheme	for a crop loan, any	required	Private Sector	required
for informal	SHG eligible for a loan		Banks	
sector loans.	from bank across all			
	dists			
(C) Credit	All farmers subject to a	Banks to	DICGC	No outlay
Guarantee	ceiling of Rs.1 Lakh	pay		required
Scheme		premium		

4.2 Risk Mitigation

Agriculture is prone to high risk and uncertainty. We have listed the risks that lead to a fall in yield. We now discuss mitigating mechanisms and their implementation.

(D) Crop Insurance: Issues and Recommendations

The most important event that adversely affects agricultural production is monsoon. The indirect effects of rainfall distribution and changing temperature are related to advent of diseases and emergence of pests. The incidence of crop failure as a result of nature-induced uncertainties has substantially increased in the last decade. Since holdings are small (>80 percent holdings have <2 hectare land), any decline in crop yields adversely affects the food and economic security of the farming community. Recurrence of crop failure due to any event often devastates farmers financially and leads to distress.

Crop insurance can be an effective tool against the uncertainties that cause crop failure. At the farm level, it can reduce the financial losses and maintain creditworthiness of the farmers, and can in turn contribute significantly in preventing agrarian distress. Banks can secure their lending and reduce defaults. With the insurance companies picking up some of the risks, the state will have to spend less in compensation for farm losses.

Crop insurance is not popular despite of its high utility. The world-wide experience with insurance for small farmers based on actual crop yields has been unsatisfactory. In India, the share of agricultural insurance premium in total farm gate value is a mere 0.015 percent. At a global level, the corresponding figure is about 0.5 percent. Crop insurance across the world largely depends on state support in the form of subsidy on premiums, reimbursement of administrative expenses of insurance companies, reinsurance support for high-risk crops, financial support for technical guidance. For example, the subsidy on premiums is about 70 percent in Canada, 60 percent in United States of America, 58 percent in Spain, and 50-60 percent in Philippines. The coverage of agriculture under insurance is greater in developed economies of North America and Europe, mainly because of high subsidy and effective implementable mechanisms.

The Johl Committee, Radhakrishna Committee and the National Farmers' Commission have recommended new insurance products (based on weather parameters), credit guarantee schemes and government relief in the event of droughts and floods.

In India crop insurance is in its infancy. The National Agricultural Insurance Scheme (NAIS) offered in 1999-2000 by the Agriculture Insurance Company of India (AICI) provides insurance coverage and financial support to the farmers in the event of failure of the notified crops as a result of natural calamities, pests and diseases. The scheme was implemented in 23 states and two Union Territories, but its coverage was thin. The scheme was not successful due to unrealistic crop loss assessment which in turn was due to inadequate infrastructure, and long delay in payment of claims. Experience shows that a comprehensive product has not worked very well. However it is possible to measure some aspects of risk and thus to insure against them.

AICI, IFFCO Tokio General Insurance Company and ICICI Lombard Insurance Company have launched Rainfall as well as temperature/weather related insurance on an experimental basis. These schemes should be expanded and rolled out across the country.

A Fund for Agricultural Risk Mitigation (FARM) should be created with functional authority vested with the AICI. A lump sum grant by the central government in the beginning (roughly Rs 1,000 crore). This can be subsequently funded by part of service tax and imposition of cess on non-farm exports. Such a fund will insulate farmers from risk in regions where agricultural insurance is yet to be operationalized but facing recurrent problems of floods, droughts and other weather related problems. The AICI should be contracted to operate this fund for giving compensation based on pre-determined criteria. The state governments should submit proposals on a sharing basis (up to 30%) to get the funds for compensating farmers in the affected areas.

- It is important to install Agro-Metrological Laboratories at the ground level for the success of weather based insurance scheme. At present, there are very few Agro-Metrological laboratories in the country and only a few are functional. Success of weather-based insurance would rely on access to these laboratories and on their effective management. Therefore, Indian Meteorological Department should be allocated resources for developing a network of Agro-Metrological Laboratories in the country. One laboratory can cover 5-6 villages, and should be linked with the Village Knowledge/Resource Centres (VKC/VRCs) as a part of national agenda of Mission 2007. This ensures availability weather data for the insurance companies. These VKC/VRCs among other things can be entrusted the task of promoting insurance literacy among farmers.
- Recurrent crop failure in was one of the main causes of farmers' suicide. A centrally sponsored weather based pilot scheme on crop insurance should immediately be launched in the 31 distressed districts. Priority should be given to these 31 districts for installing weather stations/agro-met laboratories in close consultation with VKC s under the overall responsibility of Panchayats so as to operationalize the crop insurance.
- In India, the majority of the farmers are small and marginal, and may be unable to pay the premium for insurance. Therefore, insurance must be supported by extending with a 75 percent subsidy on premium at least to those farmers who have <2 hectare holding. As mentioned earlier, high subsidy on agricultural insurance is given to the farmers in the developed countries. FARM should be used to meet the subsidies on premium to the farmers, and administrative and operating costs to the insurers.

Summary recommendations for 4.2 Risk Mitigation

(a) Immediate

(11)				
Instrument Beneficiaries		Funding	Implementing	Cost estimate
	(locations, people)	channels	institutions	
Fund for	Drought-prone and	AICI	AICI	Rs. 1,000
Agricultural	flood-prone areas			crore
Risk Mitigation				
Agro-	31 districts	Central	IMD	Rs.15 crore
Metrological		government		
Laboratories				
(AML)				
Management of	31 districts	Central	Panchayats	Rs. 0.10 crore
AML		government	and VKCs	
Subsidy on	31 districts,	Central	AICI and	Rs.6 crore
premium	farmers	government	Banks	

4.3 Social Support Mechanisms

In any distress situation, relief comes not only from financials, but also from social support. Social support systems cannot be built overnight. The Panel recognizes the importance of social support, particularly for male farmers. These support systems go beyond traditional family and kinship based networks that exist. Such traditional systems are already being weakened by the formalizing processes of development.

SHGs are a classic example of an 'artificially induced' social support system. The Radhakrishna Committee recommends that the SHGs must be strengthened and federated so that a larger institutional network is available at the local level. SHGs are largely women oriented. The Panel has identified and recommends the wider extension of a number of ways by which community and social support for male farmers can be and is already being strengthened in various parts of India. Two examples are chosen for elaboration and operationalisation:

- Pragati Bandhu Groups, as promoted by Shri Kshetra Dharmasthala Rural Development Programme [SKDRDP] in Karnataka
- Raithu Mitra Groups, as promoted by Society for Elimination of Rural Poverty [SERP] in Andhra Pradesh

In addition the Panel examined the debt counseling service initiated in Wardha in Maharashtra by Bank of India (BoI)

(E) Pragati Bandhu Groups (PB groups)

Small and marginal farmers are organised as small groups comprising 5 neighbourhood families. These groups are promoted by the SKDRDP in Karnataka. Till now 22,500 groups of five men each have been formed reaching about 1.1 lakh members. The unique feature of PB group is labour sharing by small and marginal farmers. The members spend one day a week on one member's farm, in rotation, contributing their collective labour. They also buy inputs and market produce collectively. Each prepares an annual farm plan, and monitor and assist each other in the implementing these plans. They are advised and assisted to go for mixed farming in order to reduce the risks of mono-cropping. There is an economic and emotional bond created in the farming fraternity as a result of the PB.

The groups also mobilize savings and take loans. The outstanding as of October 2007, was Rs. 278 crores. The repayment experience has been as good as with women SHGs.

The groups are promoted and continuously supported by the field workers of SKDRDP. Each worker is responsible for fifty groups. This system has been successfully transferred to districts which are outside the area of influence of Dharmasthala. It is important to consider the PB approach because agrarian distress, in its most severe manifestation, affects men even more than women, but many men lack effective social support systems. The groups are suitable for helping to relieve agrarian distress as they are designed to help farmers with all aspects of their livelihoods, and are not focused only on credit.

(F) Raithu Mitra Groups

Raithu Mitra groups are the closest male equivalent of women-SHGs. They are promoted by the Department of Agriculture in AP. Other agencies and Banks are not involved in this programme, unlike in the case of womens' SHGs. The programme started in 2003, and there are over two lakh groups, with an average membership of fifteen per group. It is estimated however, that only 20% of these groups are operating effectively.

The groups are intended to liaise for extension services and advice, to facilitate improved market linkages and financial services. They work on the principles of SHGs, with regular meetings (usually monthly), member savings (usually at fifty rupees a month), internal lending, and bank credit once they have demonstrated their sustainability. The groups can borrow short term crop loans, based on scale of finance. They can also borrow for long term investments such as pump sets.

The groups are supported by the State Department of Agriculture, but the department has insufficient resources for the task. The success of the programme is mixed.

(G) Debt Counseling

Debt counseling is a well-accepted method for helping heavily indebted people to cope with their situation and to come out of it. A trained counselor interacts with the indebted person on a one-on-one basis, and helps avoid panic, to look rationally at the situation, to quantify and order the debts and to design a plan for dealing with the problem.

Debt counseling has recently been introduced by Bank of India [BoI] under its not-for-profit Abhay Trust in two urban locations and in Wardha in Vidarbha. The service in Wardha is designed specifically for over-indebted farmers. The counselor typically advises the clients to refinance informal moneylender loans with formal debt. This scheme could go hand in hand with the debt swap scheme discussed earlier.

The present counselor is on secondment to the Abhay Trust from the bank and is available for counseling four days a week. He has two assistants to help in publicizing the service, and in the first year they have attracted a total of 7000 farmers to meetings where the service was presented and explained. There is some reluctance on the part of farmers to take up the service, but to date 150 people have been individually counselled and about 100 have definitely benefited from the service. The 'failures' have because of the farmers' unwillingness or inability to reveal the details of informal debt. Only forty per cent of the clients have been customers of BoI, the others are with other banks. In addition to the counseling service provided on the above lines, the Farming practice helpline 1551 should be open for debt counseling as well.

Excessive debt can be both frightening and shameful. Debt collectors use harsh techniques to get as large a share of the existing assets the indebted person may possess, and such threats make borrowers panic and believe that their problems are even more

serious than they really are. A trained debt counselor helps indebted people to avoid panic, help them organize their assets and to decide which debts to pay off pay off first, which to leave until later, and which to renegotiate. She or he can also inform them about their legal position, which is often much stronger than they had been lead to believe, and show them how to negotiate easier terms when necessary.

Social Networks and Support Systems: Recommendations

Social networks on the lines of PB and Raithu Mithra should be initiated immediately in all the distressed locations. SKDRDP has capacity to train up to 250 trainee PB group animators and trainers at one time in its schools. Trainees from most of India's major states have attended these programmes in the past, and SKDRDP will collaborate in a major initiative to replicate the Pragati Bandhu approach elsewhere.

The training takes three months, and SKDRDP has experience of delivering training in other languages. There are large numbers of bright young people in rural India who have the capacity to carry out work of this sort, if they are effectively trained. The national network of co-operative training colleges and RUDSETIs should be used to deliver the trainer's training programme.

It is recommended that SKDRDP should be asked immediately to design a specialist three month Pragati Bandhu promoter training programme, including a substantial component of field exposure to existing groups. This should be offered to 1,000 trainee trainers per year, drawn or recruited by contracted business partners and Non Governmental Organisations [NGOs], and government agencies in each of the thirty one most seriously affected districts. Each of these trainers will be expected to promote fifty groups in the most seriously affected parts of the district, and thereafter to support them.

The PB Group concept should in the first instance be extended to the two most seriously affected districts in each state. If it succeeds, it should then be extended to the other seriously affected districts and then encouraged to spread across the country very much the way SHG movement has spread across the country.

The cost of training each animator is estimated to be Rs.15,000. The cost of group promoters' salaries and associated supervision and overheads is about Rs 60,000 per year.

The Raithu Mithra programme promoted by the Government of AP should also be extended. Unlike PB groups which are a result of voluntary effort, the Raithu Mithra groups are rooted in the Government machinery. The Government has the ownership of this scheme at least in AP. Both these mechanisms try to achieve the same result and in essence are the same. The difference is in the implementation mechanism.

The Raithu Mithra programme should be improved and extended to all the small/marginal farmers in the distressed districts in AP who are not already members of functioning groups. The necessary institutional capacity should be built on the basis of the already existing state and NGO mechanism for promoting women's SHGs.

NABARD has in the last ten years built a very effective SHG promotion and support system, involving NGOs, banks, farmers' clubs, private SHG promoters and, 'copycat' self-promotion by group members themselves who have observed their neighbours' success. The same methodology should be used for the Raithu Mithra programme. NABARD should work closely with the State Department of Agriculture and should together with them analyse the present SHG animator training and promotion system and determine how it can be converted to Raithu Mitra promotion and support.

Experienced and effective SHG promotion institutions should be asked to nominate selected members of their SHG promotion staff to be trained as Raithu Mitra promoters. This training should take place in institutions in AP which have been involved in Raithu Mitra group promotion. It should be field-based and enable trainees to recognize the important differences between male and female groups, and to learn from the weaknesses of the existing system and improve. It should also include training in agricultural practices. Raithu Mitra groups differ from SHGs not only in their gender emphasis but also in their focus on farming, with finance as a secondary issue.

The Raithu Mithra trainer training takes one month, and covers 100 trainees. Each trainer can promote and support about fifty Raithu Mitra groups a year. Therefore the time-frame and the number of trainees can be appropriately decided at the time of scaling up. The cost of training will be Rs 10,000 per trainee promoter, and the cost of salary and associated overheads is about Rs 60,000 per year.

At the end of the pilot phase the success of PG groups and the Raithu Mitra groups should be assessed using the following criteria:

- Numbers of implementing agencies identified and contracted.
- Numbers of group promoters trained.
- Numbers of group promoters assigned to and working in field areas
- Numbers of groups promoted and surviving over one year.

Debt Counseling

Most of the committees that have investigated agrarian distress have recommended debt counseling as a mitigating mechanism. BoI is already planning to up-scale this initiative.

The VKCs introduced by Union Bank also have the potential to be used as a base for debt counseling. The centre has one room near the branch with a computer and internet connection and a bank representative available on a full or part time basis. They are used mainly to assist bank clients and others to access information on the internet, and the banker helps users to find what they want. The lack of an intermediary human 'expert' has limited the use of similar innovations elsewhere. The VKC could be used as a base for all non-cash transactions, including debt counseling. The responsibility of offering counseling services should be assigned to the lead bank of the district.

The counseling service of Bank of India [BoI] is provided by a full-time officer. The total cost of running the centre is about Rs 6 lakhs a year. This is covered by the bank. The clients pay nothing for the service. The present counselor and his colleagues at the head office estimate that one centre is needed for every 50000 potential client farmers.

The pilot BoI counselor in Wardha has counseled 250 farmers in one year. The major effort was devoted to publicizing the service and overcoming farmers' reluctance to use the service. The pilot counselor has not received any specialized counseling training, but it is recommended that Bank of India should design and manage the delivery of a short case study-based programme, on the basis of the experience gathered so far. The service should be extended first in the remainder of the distressed districts on Maharashtra, then in AP and Karnataka, and finally in the balance of the 100 districts in other states.

To assess the success of this programme we suggest the following criteria be used.

- Numbers of counselors trained and posted
- Numbers of people who have been counseled

For costing purposes it is assumed that the recommended social support mechanisms will be rolled out at an even rate over the four year period ending 31 March 2012. The coverage and cost these mechanisms are estimated as is shown in the following summary.

Summary recommendations for 4.3 Social Support

Inter vent ion	Affected districts/states to be covered and nos of s/m farmers	Total no. of small/m arginal farmers in area	No. of farmers covered per intervention agent	Cost of training each agent (Rs)	Total cost (Rs)	Funding channels	Implementing institutions
PB	Mshtra 8 lakhs,	17	250 (50	15,000	112	From GoI	SKDRDP.
Gro	Ktaka 9 lakhs	lakhs	groups of 5)		crores	allocation	RUDSETI
ups						through NABARD	centres, other NGOs
RM Gro ups	AP (excluding areas already covered) 46 lakhs	46 lakhs	750 (50 groups of 15)	10,000	97 crores	TAILE THE	SERP in AP, Ag.depts & new SERP-type institutions
Deb	Mshtra 8 lakhs	204	50,000	20,000	61	From GoI to	Bank of India
t	AP 49 lakhs	lakhs			crores	NABARD	and other banks,
cou nseli	Ktaka 9 lakhs Remaining					to banks and other	NGOs and other appropriate
ng	distressed					institutions	institutions
15	districts from						
	100 district						
	total, 138 lakhs						

4.4 Farm Practices

(H) Effective Use of Resources

The maximum risk to agriculture arises from inadequate water. Rainfed areas are particularly vulnerable. The water resources available in a given distressed zone must be used effectively. Given the high correlation between poverty and access to water, simple, low-cost, micro-irrigation technologies are the starting point for improving agricultural production and increasing market participation by the poor. In the initiative carried out by International Development Enterprises, India (IDEI), about 650,000 small holders have adopted micro-irrigation systems and are earning an average of Rs. 6,000 extra each year.

Higher-earning smallholders are those who are self sufficient in staple food crops and have been able to overcome the next level of constraints after the water – the market constraint. They have been able to purchase right inputs, make effective use of technical knowledge and market information, and develop stable linkages with output markets. The factors affecting the economic return from treadle pumps were found to include crop type, timing, cropping intensity, inputs, and market access.

The Integrating Poor into Market System (IPMAS) approach assists smallholders overcome poverty by removing water and market constraints and increasing agricultural productivity. The intervention has a water strategy, an on-farm strategy and an output linkage strategy. The details of the implementation are described below.

The water strategy involves identifying, developing and promoting irrigation technologies that are a) affordable b) environmentally sustainable c) easily maintained by smallholders and/or mistries (village mechanics) and d) provide a return on investment (ROI) of at least 100 % in the first year/ season. The technology is delivered through private-sector supply chains, developed for production, distribution and maintenance services. The equipment is offered at affordable market prices.

The **on farm strategy** is to overcome constraints in the production process. The intervention concentrates on a limited number of promising crops and aims at improving production techniques by adopting best practices. Tree crops are used for risk mitigation. This strategy is oriented towards cropping pattern counselling. All counselling services can possibly be accessed at a single point of the VKCs once the content part of VKC in its comprehensive form has been developed in local languages.

The **output linkage strategy** aims at assisting farmers to overcome output level constraints in order to get higher market returns. This includes enhanced access to information, facilitation of contacts and negotiations, searching for new marketing channels and methods and low investment processing.

Currently, IDEI is operating in over 170 districts in 12 states, including in 9 out of the 31 distressed districts identified in the PM's package. This model with appropriate enhancements to ensure that the water strategy is enhanced and integrated as an inputs strategy, needs to be spread in the 31 distressed districts in the first year and extended to

the rest of the 69 districts in the second year and later, across the country irrespective of the distress/backwardness classification. The model moderates input costs will prevent other districts from getting into distress. The rough estimates of financial requirements is around Rs.16,000 per farmer household for the current mix of activities. Of this, Rs.8,000 should come in the form of grant to cover the cost of technology development, extension, training, contact facilitation along the value chain, monitoring and evaluation. The balance of Rs.8,000 is for credit to finance the commercial part of the operations.

To assess the success of this programme, the following objectively verifiable indicators should be used:

- Number of new farmers integrated into the scheme each year and staying in the scheme after the first year
- Technological innovations successfully introduced on the farm
- Increase in net income of farmers
- Diversification of crops on farm level, as compared to the crops before joining.

The modality should be as follows:

- NABARD implements this idea in partnership with NGOs. The mode of support
 could be similar to the type of support extended for SHG formation. However,
 NABARD will also work with specific targets within each district on the number of
 people to reach each year. Budgetary allocations will be made accordingly.
- These activities should be part of recently announced Krishi Vikas Yojana for which the Government has allocated Rs 25,000 crore for XI Plan.

(I) Sustainable Agriculture

Farmers have been substantially de-skilled because of the interventions of HYV and GM seeds and attendant farm practices. This has led to greater risks and new strains of pests resistant to pesticides. The solution is in moderating the use of inputs and eventually to moving to organic agriculture. Both strategies are discussed in the following paragraphs.

Input strategy

The input strategy has two objectives: 1) to make the use of farm inputs more efficient and more sustainable, and 2) to reduce the cost of inputs and thus reduce the need for credit. Three aspects should be addressed in an integrated manner, along with water.

The **seed strategy** should ensure that seeds are produced locally for crops that are widely grown and are not technologically intensive. Instead of going through a cycle of foundation seeds, processing them off site, going through a process of testing and certification to sell the seeds back in the same area, strategies could be involved to supply foundation seeds and ensure that local markets develop for the seeds. A crucial aspect of the seed strategy is bio-diversity conservation, enhancement and utilization. The biogenetic wealth of the traditional varieties developed over years are being lost as a consequence of modern agriculture and the concentration on few varieties.

GREEN Foundation in Bangalore has been working over a decade with the local community and individual farmers to conserve seeds. Together with 2000 farmers in 160 villages throughout Karnataka, GF has facilitated the on-farm conservation of approximately 380 indigenous seed varieties of millets, paddy, vegetable and oilseeds that would otherwise have been threatened by extinction in the face of the advance of large-scale non-organic agriculture. To this purpose, GF has worked to revive traditional storage and exchange of seeds through 50 community seed banks.

- The **fertilizer strategy** should ensure that fertilization is done correctly, with the right inputs, and efficiently. Organic fertilization (based on the recycling of farm waste) to improve soil quality should be more widely used even in non-organic agriculture. To ensure efficiency of fertilization organic as well as chemical it should be done on the basis of soil analysis. For this purpose a network of soil testing labs networked with agriclinics is recommended. These laboratories can provide soil testing services and advice on the appropriate amount and mix of fertilizers to be used and thereby conserve resources that are wasted by excessive use of fertilizers.
- The **pesticide strategy [Non-Pesticide Agriculture]** ensures a gradual reduction and eventual elimination of synthetic pesticides and is a first step towards sustainable agriculture. To control pests, Integrated Pest Management (IPM) is used, comprising pest monitoring. Alternative means for pest control such as mechanic and biological control techniques are used. The benefits of the pesticide strategy would be considerable reduction of production cost and consequently higher income; healthier production methods, eliminating the health risk of toxic agrochemicals; ecologically friendly production with no contamination of soil and water with pesticide residues.

The Centre for Sustainable Agriculture in AP has been active in 18 districts working in 1,800 villages with 3,00,000 farmers. It covers 7,00,000 acres of land on a variety of crops emphasising Non-Pesticide Management. CSA works in close collaboration with SERP. According to CSA's experience, net income of farmers has increased, ranging from Rs. 5,000 per acre in cotton to Rs.15,000 per acre in other crops.

CSA plans to upscale its program to reach 5,000 additional villages with 10,00,000 farmers in the next 4 years. The plans include expansion to the states of Maharastra (Vidharba) and Punjab. This expansion is receiving support through the Prime Minister's package. CSA intends to carry out complementary activities in the next four years. These comprise the establishment of a training centre for ecological farming, support of marketing activities through the creation of 5,000 cooperatives (one per village) and support for the creation of small enterprises at village level for the production of farm inputs. These projects have an approximate investment cost of Rs. 25 crores and recurring costs of Rs. 30 lakhs per year, over 4 years.

Organic agriculture

A substantial portion of India's farming relies on traditional methods that are organic or close to organic. Estimates are that 60% of agriculture in India is by default organic.

Organic farming is an alternative for small farmers to increase their income. It also works as an effective de-risking strategy, since it does not use chemical inputs and high risk technologies such as GMOs (one of the reasons of crop failure in cotton). Organically managed soils withstand adverse weather and climatic hazards such as drought and torrential rain better.

Although during the period of conversion farms may experience a decrease in yield, the yields tend to reach or even surpass former levels after 2 – 4 years. However, incomes are not related just to yields, but also related to production costs and improving soil health. Comparison between conventional and organic farming for several crops (cotton, rice, sugarcane, banana) over a medium term period of (1-7 years) revealed that the cost/yield relation was best in organic farming once conversion is completed⁴.

The main benefits of organic agriculture are:

- Cost reduction and increase of net income
- Higher self sufficiency less dependence on off-farm inputs
- Crop diversification and thus risk mitigation and better food security
- Soil improvement
- Improvement of quality and market value of products premium price for certified organic products
- Balanced eco-system
- Better farm management
- Spin offs such as opening market for inputs (vermicompost) and processing

India is experiencing an expansion of organic production. The figures for Maharashtra report 3,80,000 farmers involved, organized in 3,380 farmer groups and cultivating a total of 6,60,000 hectares. The main products under organic cultivation are cereals, pulses, oil seeds, sugarcane, medicinal plants, fruits, vegetables, spices, tea, coffee and cotton.

Most organic farming is not certified. **Participatory Guarantee Systems** (PGS) has emerged as a certification tool for small holders. PGS is an integrity based approach that starts with trust, transparency and participation, with a system of mutual recognition and support and knowledge sharing. It is suited for small farmers who sell locally. It is less onerous in terms of paperwork, record keeping requirements. It is also perceived as an important tool contributing to the development of knowledge and capacity building of all the stakeholders for the production and consumption of organic products. The training and capacity building of the farmers is basically the same as for formal certification.

Successful experiences with PGS-systems:

• Maharashtra Organic Farming Federation (MOFF), Pune [www.moffindia.com] is a Confederation with a membership of 7000 individual farmers and 145 NGO's. MOFF runs 250 farmer schools and a number of seed banks. It is active in 34 districts with linkages to 1,87,000 farmers. MOFF has developed a Participatory Guarantee System

⁴ Sources: FAO report on Credit Issues for Organic Farmers (TCP/IND/3003) and FIBL impact study on organic cotton (2005). Unpublished research by IFAD.

which is much cheaper for the farmers. It also helps in developing linkages between consumers and producers. MOFF has completed a farmer suicide prevention mission in the Yavatmal, Wardha, Washim, Akola, Amaravati, and Buldhana districts, with the help of Agricultural Department. It offered training to build the farmers' confidence in the low cost technologies of organic farming as an alternative. MOFF's program for upscaling comprises the creation of an International Institute of Sustainable Agriculture for training and participatory research and a scheme of "Village Ambassadors" (Gramdoot scheme) which foresees the training of 600 rural extensionists, each of whom will train 1,500 farmers in the first year (a total of 9,00,000 farmers) and upscale this number in the following years. MOFF also plans to increase the number of farm schools to 1,750.

- Institute for Integrated Rural Development (IIRD), Aurangabad, Maharastra [http://www.iird.org] is one of the pioneering institutions promoting organic agriculture in India, instrumental in creating awareness, training farmers and supporting community action programs. Of special interest is IIRD's program in sustainable organic agriculture in Maharashtra's Aurangabad region. In 2004, 1,700 organic farmers with 4,100 acres in 72 villages participated in the program. Of these farmers 1,100 of them are women organic farmers having very small holding of less than 4 acres. The program consists of the following components:
 - Organic agriculture training for small and marginal farmers in Marathwada region, particularly women farmers of Paithan Taluka
 - Local Participatory Guarantee System (PGS)
 - Organic bazaars as alternative marketing systems with effective consumerproducer linkages.

While PGS system is a tool for promoting organic agriculture for local markets, **formal third party certification** is an accepted instrument for export oriented production. The third party certification uses a much more complex and systematic control mechanism by an external body, which makes certification expensive and time consuming. About 45.000 farmers are participating in organic certification schemes (25.680 certified and 19.240 certified under conversion). The total area under certified organic cultivation is 5,28,171 hectares.

A success story in organic certification mainly for export is cotton. The largest organic cotton project in India is Maikaal bioRe, involving 1500 small farmers. According to the FIBL impact study, gross margins in organic cotton have been 52% (2003) and 63% (2004) higher than in conventional cotton. Due to growing demand for organic cotton in the international market, the prospects for expanding are bright.

ETC is a NGO involved in promoting and supporting cotton farmers to convert to organic farming. Through their Chetna program they work with 5775 farmers and plan to increase this number to nearly 10,000 by the end of 2008, covering close to 25,000 acres of cotton. For the period 2009-2002 ETC plans to reach out to 75,000 new farmers. ETC's cotton programs are located in the states of Andra Pradesh, Maharastra, Tamil Nadu and Orissa.

Financing sustainable agriculture

Organic and non-pesticide agriculture is not capital intensive. There are usually less financial constraints in the production process than in conventional agriculture. In the organic conversion period, however, yield may be reduced and cost of labour increase. Investments in farm infrastructure, such as in irrigation or compost units, may be necessary. Since animal husbandry is a logical complement of organic agriculture as source of organic fertilizer, the purchase of livestock might require financing.

The main constraint in converting to non-pesticide or organic agriculture is availability of extension services for training, technical advice and market promotion. These services cannot be paid for by the small farmers and therefore have to be taken up by agencies that have an independent funding. The most prominent institutions promoting sustainable agriculture among small-scale farmers are NGO-led organizations.

The cost for extension (promotion, training, capacity building, support) accrued to the support institution varies according to the size of the group and the geographic scope. The extension cost per farmer is less in NPA and higher in organic farming; it is estimated to be between Rs. 6,000 and Rs.11,000 for the whole conversion period.

The direct incremental cost of NPA for the individual farmer is insignificant. On the contrary, there will be savings in costs of pesticides. The cost of conversion to organic varies considerably, according to the crop and the conditions of the farm before conversion. The more diversified the farm and the better the soil conditions are, the less is the cost of conversion. The main cost elements are:

- Soil fertility management according to soil quality
- Pest control and management (knowledge acquisition, production of biopesticides, manual control is labour intensive)
- Productivity losses during conversion period (1-3 years)
- Possibly investment in infrastructure

As a thumb rule one can estimate the one-off investment for conversion for the individual farmer at Rs.4,000 per hectare (excluding certification fee).

In addition to the costs for organic conversion discussed above, if third party certification is included it, requires a substantial cost element as certification fee, which varies considerably but on the average amounts to around Rs. 2.500 per farmer/year.

Recommendations

The Panel recommends the creation of a Fund for Promotion of Sustainable Agriculture. This fund should be available for:

• Providing grants for promotion and extension services to NGOs that plan to scale up their activities in order to reach a significant number of new farmers. The geographic scope of the program could be centred on the 100 distressed districts, but should allow exceptions to include programs with potential for replication in other districts.

- Providing grants for subsidizing conversion costs for small farmers, particularly compensation for decrease in yield in the conversion period and for certification.
- Providing credit for investment necessary for organic conversion at farm level.

Three support modalities differing according to the methodological approach as described above could be envisaged:

- Support to NPA as a step towards organic farming.
- Support to organic farming without formal third party certification, but operating along the lines of an internal Participatory Guarantee System (PGS)
- Support to organic farming following recognized standards and with formal certification by an accredited national or international certification body.

The following objectively verifiable indicators should be used to monitor and evaluate the success of this initiative:

- Numbers of new farmers participating successfully in the different schemes (i.e. complying with the rules of the institution, e.g. third party certification or PGS) per institution each year
- Additional area covered under organic farming
- Increase of net income of farmers as compared to the period before joining

Summary recommendations for 4.4 Farm Practices

Instrument	Beneficiaries	Funding	Implementing	Cost estimate
	(locations, people)	channels	institutions	(Rs.)
(H) Use of	500,000 in the 100	NABARD	e.g	400 crores
Resources	distressed districts	Allocation	IDEI	grant
				400 crores
				credit line
(I) Sustainable Agriculture				
■ NPA	10,00,000 in AP,	NABARD	e.g	26.2 crores
	Maharastra, Punjab	Allocation	CSA	
■ PGS	10,00,000 in	NABARD	e.g	1,000 crores
	Maharastra	Allocation	MOFF	grant
				400 crores
				credit line
Organic	75.000 in Dindigul,	NABARD	e.g	75 crores
certified	Madurai, Dhule	Allocation	ETC	grant
				30 crores
				credit line

5. Medium term Implementation Points

5.1 Financial Management

In addition to the issues recognized above for short term implementation, there are other factors, not directly related to agriculture that impinge on the general well-being of the households. While these issues pertain to the personal space of the farmer families, it is important to recognize them because they affect farming activity of the families. The issues that might lead to distress are listed below:

- Excessive Indebtedness irrespective of the cause.
- Medical/Health related expenses. Studies (Krishna, 2003⁵ and Sriram, 2007⁶) have repeatedly pointed out that one of the major causes for "distress" is both planned and unforeseen medical expenses. While it is difficult to take care unforeseen expenses that happen on expected lines could be addressed.
- Expenses on account of planned social events like weddings. Expenses on account of unplanned social events – offering a death feast could be a typical example.
- Food insecurity at the household level, leading to greater vulnerability, malnutrition and related problems.
- Unforeseen calamity such as a flood, tsunami or a drought that affects the whole area and cannot be planned for and covered.

In the long run, the problem of "adequate and appropriate resources at the appropriate time" can addressed providing strong fall back arrangements. The 100% financial inclusion project is a step in the right direction. With opening of accounts the banks are accessible, but this is the first step. The challenge is to increase transactions and ensure that the bank is a friendly place to "hang out". This can be done through VKCs which can be a one stop shop for all support services needed by the farmers.

On the personal space, several interventions will have to be made both in the immediate and the long run. What happens in the personal domain has implications on overall well being and thus might lead a household towards a distress situation. Focusing only on "agrarian" distress would be looking at a part of the problem. Krishna (2003) argues that pressures that push the people towards poverty are health, and social expenses, apart from the failure of investments in business (including farming) that we have discussed above. Therefore it is important to examine these issues as well. The other medium term initiatives that should be rolled out on a national scale are given below.

Food Security at the household level:

The experiment carried out by Velugu in AP on Rice Credit Line [RCL] has shown promise. This entails a SHG buying staples in bulk based on members' orders which are

⁵ Krishna Anirudh (2003): Op.Cit.

⁶ Sriram M S (2007): Financial Flows of the Rural Poor: A Study in Dungarpur District. Ahmedabad: Indian Institute of Management. (mimeo)

financed by the loan scheme. The loans are repaid in due course, and there is always food available for the household. The positive points of this scheme are:

- Bargaining power reducing the cost of cereals to be bought for the family
- SHG network providing the necessary finance
- The fact that food is available and gives a better bargaining power for wages.

The RCL scheme should be extended to more commodities and more regions. The existing networks have to be leveraged for implementing this scheme. While it has worked best with SHGs, it could possibly work through farmer's clubs and joint liability groups. Since this will leverage on existing networks the incremental costs will be minimal. However in regions where there are no group networks, the state will have to find alternative mechanisms for organizing this activity. It could also be used as a vehicle to promote new SHGs and Federations.

Regulatory mechanism for Inputs: Seeds

One of the most important aspects leading to agrarian distress pertains to the steep increase in prices of inputs [particularly seeds in case of cash crops] without a matching increase in the output prices. The seed companies justify their prices on the basis of the expenses incurred on research. These seed companies should be brought under regulations so that they file their price lists. The prices charged to the Indian farmers are should be on par with the lowest prices charged elsewhere in the world. State owned seed companies have to go through a laborious process of getting their seeds certified and there is no level playing field. The modified bill that is under consideration with the parliament to should be passed, to ensure that we have a regulatory framework for seeds.

5.2 Risk Mitigation:

We need to address the risk at both the personal space as well as the professional space. One of the issues that impinge on the professional space and has not been discussed earlier is the relief for failure of investments, particularly those pertaining to failed wells. Studies have shown that such failures do lead to distress (Venkateshwarulu and Srinivas 2000⁷ Krishna, 2003⁸). It is important to protect against the failure of such genuine investments. While a more desirable option to address this issue would be to encourage public investments in this space, followed by low-cost options for private investments as evidenced in the IDEI experiment, in areas where private individual investments are to be necessarily made, it would be desirable to cover the risks.

The immediate relief for failed wells or any such private investments is to be done in association with the insurance companies. The failed well scheme that was implemented in the past was not successful. However, it might work if insurance companies are involved. There would be greater professionalism in the assessment of an investment prior to actually undertaking the activity. The state has to take an overall cover for all

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⁷ Venkateshwarlu, Davuluri and K Srinivas (2000): *Debt and Deep Well: Status of Small and Marginal Farmers in Warangal District*. Hyderabad: CARE.

⁸ Krishna, Anirudh (2003) Op.Cit.

such failed investments by paying a premium to the insurance companies based on actuarial calculations. In order to avoid moral hazard, the intent to make a "private investment" in a project has to be filed, and the intent has to be approved by the formal institution. The permission to make private investment be given in areas where public investments are not being made, currently or in the near horizon [next two years]. A technical feasibility is to be established with the assistance of experts which would precertify the investment. Only such investments will be covered for relief.

Vulnerability on account of health related issues:

- The Gujarat government has a "chiranjeevi" scheme that takes care of pregnancy and child-birth related expenses. The hospitals are notified and compensated for every child delivered with differential rates for normal and caesarian section delivery. This is working well, and it costs around Rs.3,000 per birth.
- Sewa has a comprehensive insurance scheme for health which also covers maternity as well as limited hospitalization expenses in other instances. This uses the network of Sewa's workers for assessment of compensation, thus reducing the costs of claim settlements. This could be replicated across the distressed districts to start with. Sewa is willing to collaborate on this initiative.
- The Radhakrishna committee report refers to the Yeshaswini scheme run in collaboration with Narayana Hrudayalaya and the Government of Karnataka which provided comprehensive health related insurance to a large section of the population. This could be an alternative to be rolled out across the country.
- Sampoorna Suraksha, the health scheme of SKDRDP covers a family of 5 members for expenses up to Rs.25,000 for a nominal fee of Rs.700 per annum. The admissible expenses include hospitalization and post hospitalization expenses, maternity benefits, losses due to natural calamities and also a life cover for earning members.

Agricultural risks

One of the main problems in agricultural risk mitigation is the absence of adequate infrastructure to provide reliable information about fluctuation in weather parameters. In the medium term, government should implement the following recommendations:

• Encourage private insurance companies to offer crop insurance by giving incentives on the patterns of crop insurance program in the United States of America. The government supported crop insurance program in USA is implemented by about 15 private insurers, besides Federal Crop Insurance Corporation (FCIC), a government company. All insurers implementing the program are eligible for premium subsidy, and administrative and operating expenses, are reimbursed by the government. AICI should act as the FCIC does for coordinating on behalf of the government. Regionwise premium rates for different crops and services should be finalized by the AICI, and registered private companies should be mandated to sell the insurance products.

- Most private insurance companies in India with business in general insurance do not have a crop related product. The Government should make it mandatory for private insurance companies to have 10% of the total sum assured as agricultural insurance.
- Insurance products for crops in different agro-eco-regions must be developed. For instance, chickpea is adversely affected by frost, temperature, pod borer and wilt in the Indo-Gangetic Plain. While, temperature, hail storm, rainfall, Karnal Bunt and rust adversely affect wheat in the Indo-Gangetic Plain. The AICI and private companies have launched some region-specific and eventuality-specific insurance products. More region- and crop-wise insurance products should be developed.
- A systematic documentation of crop losses as a result of different eventualities in different agro-eco-regions should be carried out. This will help in evolving new schemes. The Ministry of Agriculture, initiate research programmes in Indian Council of Agricultural Research, Indian Space Research Organization and Indian Remote Sensing Agency to examine use of remote sensing technologies for estimating crop losses at a smaller scale. This may cost Rs 50 crore to take satellite images and undertake ground results for important crops in different agro-eco-regions.

In addition to crop insurance which cover yield risks, price risks must also be covered. This risk could be covered by making micro-futures available.

Summary recommendations for Agricultural Risk

Medium [upto 2012] and Long term Recommendations

Instrument	Beneficiaries	Funding	Implementing	Cost estimate
	(locations,	channels	institutions	(Rs.)
	people)			
Crop loss estimates	Insurance	Central	ICAR, ISRO,	50 crore
for developing	Companies	Government	NRSA	
insurance products				
Agro-Metrological	First 69	Central	IMD	550 crore
Laboratories	distressed	government		
Management of	districts [by	State	VKCs	11.23 crore
AML	2012], later	governments		
Subsidy on premium	throughout the	Central	AICI and	120 crore
	country	government	Banks	

5.3 Social Networks

In the medium run all districts should be necessarily covered by the concept of a VKC/VRC. Several models are available and this has to be built upon the existing base. MYRADA in Karnataka has promoted VRCs, the Union Bank has set up several VKCs

and as a part of the Mission 2007 there is a plan to set up VRCs across the country. The e-Choupal experiment of ITC is spread across the country. All these centres need to be mapped and through a scheme of public-private partnership designated as resource centres. While depending on which agency is running the centre, it is possible that the services offered might vary across locations, as a part of the partnership, there should be a minimum number of services for which households could certainly access the resource centre. The minimum services to be provided by the resource centres would be:

- Access to counseling services on debt and financial management
- Access to agricultural package of practices
- Information on prices and markets
- A detailed inventory of the schemes and packages available in the local area
- Information on weather

The MS Swaminathan Research Foundation should be approached as a nodal agency for preparing the content of the resource centres.

5.4 Sustainable Agriculture

The policy towards organic agriculture has been centred on export. The National Program for Organic Production is directed by the Ministry of Commerce. It is limited in scale. The National Policy for Farmers recognizes that its policy suffers from lack of adequate institutional support for organic agriculture and pleads for a more active role. Support has been provided by Governments like Uttaranchal, which declared itself "an organic state" indicating its intention to encourage it at all levels.

The first hurdle for small farmers wanting to convert to organic is the lack of extension services. The next is certification. Certification would be essential for international markets. This possibility should be examined in the long run. Group certificates can reduce individual costs. Local certification bodies such as INDOCERT charge significantly lower certification charges as against international certifiers.

Besides know-how, one bottleneck for small farmers to go organic is market information. Although there is a potential internationally as well as domestically, organic farming has not been exploited in India so far. Macro trends in consumer markets worldwide point to increasing health and food safety concerns. Improved food safety and traceability are the hallmark of high-value agricultural trade, standards being the tool for product differentiation. Certification becomes a comparative advantage in such markets.

Given the size of the population with significant disposable income the potential for local sales is enormous. According to a study by International Competence Centre for Organic Agriculture, the market potential for organic foods in India is estimated at Rs 2,300 crores. The top 10 organic foods categories in demand are vegetables, fruits, milk, dairy products, bakery products, oils, ready to eat, wheat/ atta, frozen foods & rice. The support of external organizations (NGOs or trade chains interested in sourcing organic products) has been crucial in building marketing channels, for domestic and export sales.

Recommendations

- Adopt a policy that validates organic agriculture as an alternative.
- Extend subsidies paid to conventional farming (e.g. fertilizer subsidy) to organic farmers in an adequate form (subsidy on cultivated surface, subsidized certification and credit, etc.). Subsidies should be non-distortionary.
- Public investment organic agriculture: extension services, training and research
- Government subsidies for organic fertilizer manufacturers, will offer little benefit to small farmers and go against organic principles, which encourage on-farm nutrient recycling and minimization of external inputs.

6. Outlook

We have discussed pressure points in agriculture. However, with a long term perspective a key proactive step should be to provide diversification of livelihood opportunities. Anirudh Krishna's study indicates that the pressure points that push people into poverty are totally different from the factors that have pulled people out of poverty. These initiatives are in strengthening the implementation of the NREGA, and examining issues of access to land, sustainable farming methods, contract and corporate farming in detail.

Initiatives to assist families to diversify their livelihood should focus on skill development and trainings by involving RUDSETIs. RUDSETI system is effective for promotion of Entrepreneurship is being adopted by the banking system. This approach was emphasized in the budget speech and was advocated by the Committee on Financial Sector Plan for North East. The experience of RUDSETI as a low cost, low capital intensive and minimal human resource institute is positive. There are 22 RUDSETI / RUDSETI type of Institutions functioning in 15 States. These institutions identify, orient, motivate and assist the rural unemployed youth to take up self-employment ventures; and train village level workers to work in rural development. The average cost of training a candidate is estimated at Rs 2,700. This model should be seriously examined, to mitigate agrarian distress. However, as stated earlier, this recommendation is beyond the ToRs.

The long term solution is to have increased investments in publicly funded agricultural research and make the technology available to the farming community at reasonable prices with adequate certification. This will involve significant research funding for agriculture universities and research stations. The failure of agricultural extension cannot be addressed in the immediate term through any short term measures or "packages". However, counseling services in the form of Agricultural Extension has to be provided. The existing models of Agricultural Extension such as those tried out by BASIX do not make economic sense to rapidly scale up. In this case also the public investments in extension have to increase through the mechanism of agri-clinics.

The model adopted by SERP of the AP government of training para professionals to help out in various specialized tasks and extension services of the villages could be examined. This will involve subsidy from the state. Subsidies that address pressure points through safety nets and support systems are better than direct doles and write offs.

Terms of Reference (ToR)

of the Expert Panel to look into the Agrarian Distress in affected districts in India

The following terms of reference are proposed for the members of the NABARD Expert Panel (supported by SDC) for preparing an action plan for mitigating agrarian distress in affected districts of India. The exercise is being pursued on the basis of a discussion /mandate between NABARD and the Government of India (GoI) on the subject.

Background and Context

For the last few years, the agriculture sector in the country has been witnessing low growth and productivity, non-remunerative prices for the produce, input and output marketing constraints, institutional barriers including timely availability and delivery of institutional credit, insurance, infrastructure and investment. These have resulted in poor performance of the sector in spite of a robust overall economic growth, leading to agrarian distress, manifested through migration, farmers' suicides and reduced participation in agricultural activities in the affected districts.

Several attempts have been made in the recent past by the Government of India to look deeper into the problems affecting the agricultural sector, with the objective of evolving appropriate solutions for different domains of the farm sector. This has been done by constituting several sector- specific commissions, committees, expert groups/panels, task forces etc. Although they have, after an in-depth farm sector analysis, made several recommendations, a clear cut implementable plan of action needs to be formulated. As a result, the Government has not been able to effectively address the agrarian distress in a focussed, result oriented, time bound and implementable manner.

This has prompted the Government to seek appropriate solutions, which when implemented, will yield tangible results.

In the above context, on the basis of the discussions between Chairman, NABARD and GoI, it has now been decided to constitute an Expert Panel for preparing an action plan to mitigate agrarian distress in the affected districts in a time bound manner.

In this initiative, NABARD and its long term partner Swiss Agency for Development and Cooperation (SDC) will collaborate in the preparation of the action plan by the Expert Panel.

Objectives

The overall objective of the Expert Panel is to prepare a time bound implementable action plan, with the view to address the problems and constraints related to agrarian distress in the affected districts in India.

The action plan, inter alia, will address the following issues and concerns specifically and contain:

- A brief overview and analysis of the constraints and problems currently faced by the farm sector in India.
- Identification of the broad contours of the long term strategies, based on a systemic approach, to put the farm sector on a sustainable growth path.
- Formulation of an implementable short to medium term action plan with a focus on organisational, managerial, financial arrangements required for the Government to mitigate current agrarian distress.

Composition of the Panel

The panel, headed by Dr. Y S P Thorat, Chairman, NABARD, will consist of:

- 1. Prof Malcolm Harper, U K
- 2. Dr Richard Gerster,
- 3. Dr. Konrad Matter, Switzerland
- 4. Prof MS Sriram IIM Ahmedabad
- 5. Dr P.K. Joshi NCAP, New Delhi
- 6. Mr Satish Chander (Joint Secretary, Ministry of Agriculture, GoI)

During the first meeting, the roles, responsibilities and precise tasks of various members of the Panel will be discussed and mutually agreed upon.

A Support Group consisting of selected representatives from NABARD and SDC will provide required administrative, technical and logistic support to the Expert Panel.

Tasks of the Expert Panel

The Expert Panel will have the following key tasks

To review relevant and important existing reports / papers of the Committees/ Expert Groups in last few years which had dealt with the issues relating to agrarian distress in a few districts of the country Namely:

- Committee on Financial Inclusion chaired by Dr C.Rangarajan
- Expert Group on Agricultural Indebtedness, chaired by Dr Radhakrishna.
- Expert Group on Agricultural Distress chaired by Dr S.S.Johl.
- Report of the National Farmers Commission headed by Dr M.S.Swaminathan.
- Report of the Expert Group on Credit Deposit Ratio, Chaired by Dr Y.P.S.Thorat.
- Reports of the Sub-Group on Institutional Credit for the XI Five Year Plan.

To identify and sort out recommendations contained in the above reports, specific to financial and real sectors.

- On the basis of the above, to undertake a brief overview and analysis of the agrarian distress in affected districts from a financial sector perspective(including gender).
- To formulate and draft an implementable short to medium term action plan with <u>finance sector focus</u>, containing specific activities, geographical locations, modes of funding (including options for loan waivers) financial plans, institutional arrangements, roles and responsibilities of the various institutions.
- To design a monitoring and follow-up mechanism for strengthening the implementation of action plan.

Methodologies

The methodologies to be followed for the Expert Panel will be participative, interactive and consultative and will, among other things, include

- Briefing and agreeing on the objectives, division of tasks and roles, results expected and outputs together with timelines.
- Selection among themselves of anchor persons for discussions, feedbacks and report writing.
- Analysis of relevant documents and literature as indicated above.
- Visiting field sites where required.
- Discussions with select internal and external stakeholders (including NABARD, RIF Team, SDC etc). Interactions with some members of the various earlier committees which had looked at the issue of farm distress.
- Internal brainstorming
- Presentation of the draft report
- Final report preparation

Ownership

The primary ownership of process and the product of this initiative will lie with Government of India & NABARD. NABARD will function as a sounding board to the panel in helping them to evolve the action plan required. Government of India & NABARD will take a lead in following up on the operationalisation of the action plan. in coordination and cooperation with the Government of India. The role of SDC in this exercise of national importance will be one of facilitator, enabler and participant.

Expected Output

The Panel will present a **concise report** containing, among other things:

Executive Summary

- Brief analysis of the existing situation
- Approach, direction and perspectives with recommendations
- A short to medium term action plan with a focus on geographical locations, modes of funding, amenable to monitoring & follow-up. The feasibility of a limited loan waiver schemes with special reference to the affected districts without impairing the health of the financial systems will also be addressed. This should, if necessary, be based on the experiences of the past loan waiver schemes, providing details such as the magnitude, modality (specific conditions and areas for providing loan waivers to the farmers), implication for the borrowers and lending institutions, source of funds for financing the loan waiver etc.

The main part of the report is expected to be around 25 pages.

Timeframe

The constitution of the Panel and finalisation of administrative formalities was completed on 2nd November 2007

The Panel is expected to complete its tasks in three stages with duration of each stage limiting to about a week (including travel)

The background / reference material as indicated above will be provided to the Panel by latest by 5th November, 2007.

The first meeting of the Panel will be held in Delhi on 16th & 17th November, 2007.

The second & the third meeting are scheduled respectively on $3^{\rm rd}$ to $8^{\rm th}$ December and $7\text{-}11^{\rm th}$ January 2008

The draft report shall be discussed in the third meeting.

The final report by the Panel will be presented to NABARD by 15th of January, 2008.

Budget and financing

The budget for the Panel Members will be drawn out of the NABARD-SDC Rural Innovation Fund & finance from SDC.

New Delhi/Bern, November 6, 2007

Annexure 2

List of 100 Agriculturally Less Developed and Distressed Districts

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

No	State	District
1	Andhra Pradesh	Adilabad*
2	Andhra Pradesh	Anantapur*
3	Andhra Pradesh	Chitoor*
4	Andhra Pradesh	Cuddappah*
5	Andhra Pradesh	Guntur*
6	Andhra Pradesh	Karimnagar*
7	Andhra Pradesh	Khammam*
8	Andhra Pradesh	Kurnool*
9	Andhra Pradesh	Medak*
10	Andhra Pradesh	Mehabubnagar*
11	Andhra Pradesh	Nalgonda*
12	Andhra Pradesh	Nellur*
13	Andhra Pradesh	Nizamabad*
14	Andhra Pradesh	Prakasam*
15	Andhra Pradesh	Ranga Reddy*
16	Andhra Pradesh	Warangal*
17	Bihar	Banka
18	Bihar	Bhagalpur
19	Bihar	Darbhanga
20	Bihar	Jamui
21	Bihar	Lakhisarai
22	Bihar	Madhubani
23	Bihar	Saran
24	Chattisgarh	Bilaspur
25	Chattisgarh	Janjgir

26	Chattisgarh	Jashpur
27	Chattisgarh	Kanker
28	Gujarat	Dahod
29	Gujarat	Patan
30	Jammu & Kashmir	Baramulla
31	Jammu & Kashmir	Doda
32	Jammu & Kashmir	Kargil
33	Jammu & Kashmir	Kupwara
34	Jammu & Kashmir	Udhampur
35	Jharkhand	Deoghar
36	Jharkhand	Gumla
37	Jharkhand	Hazaribag
38	Jharkhand	Lohardaga
39	Jharkhand	Pakaur
40	Jharkhand	Sahibganj
41	Jharkhand	Seraikela
42	Jharkhand	Simdega
43	Karnataka	Belgaum*
44	Karnataka	Chikmangalur*
45	Karnataka	Chitradurga*
46	Karnataka	Hassan*
47	Karnataka	Kodagu*
48	Karnataka	Shimoga*
49	Kerala	Kasargod*
50	Kerala	Palakkad*
51	Kerala	Wyanad*
52	Madhya Pradesh	Anuppur
53	Madhya Pradesh	Ashoknagar
54	Madhya Pradesh	Balaghat
55	Madhya Pradesh	Barwani
56	Madhya Pradesh	Betul
57	Madhya Pradesh	Burhanpur
58	Madhya Pradesh	Chhatarpur
59	Madhya Pradesh	Chhindwara
60	Madhya Pradesh	Dindori
61	Madhya Pradesh	Jhabua
62	Madhya Pradesh	Katni
63	Madhya Pradesh	Mandla

65 Madhya Pradesh Rewa 66 Madhya Pradesh Seoni 67 Madhya Pradesh Shahdol 68 Madhya Pradesh Sidhi 69 Madhya Pradesh Umaria 70 Maharashtra Akola* 71 Maharashtra Amravati* 72 Maharashtra Buldhana* 73 Maharashtra Gadchiroli 74 Maharashtra Gondia 75 Maharashtra Nanded 76 Maharashtra Nandurbar 77 Maharashtra Osmanabad 78 Maharashtra Wardha* 79 Maharashtra Wardha* 80 Maharashtra Wasim* 80 Maharashtra Wardha* 81 Orissa Boudh 82 Orissa Koraput 83 Orissa Nawapara 84 Orissa Nawapara 85 Rajasthan Churu	64	Madhya Pradesh	Panna
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Source: Report of the Expert Group on Agricultural Indebtedness ("Radhakrishna report"), Ministry of Finance, New Delhi 2006, pp. 15 – 17 (Annex A). The report notes: Data on district-wise land productivity has been provided by Dr. Gurmail Singh of Punjab University, Chandigarh. Data on credit-deposit ratios has been provided by the Economic and Political Weekly Research Foundation. Data on urban population are based on CensusInfo 1.0, Census 2001.

Guidelines for Management of Allocations to be Made by Government of India to NABARD for Social Capital Building and Farm Practice Improvement Interventions

The panel on implementable measures for dealing with agrarian distress recommends that certain monies should be allocated by the Government of India to cover the cost of the proposed measures to build social capital among farmers and to improve farm practices.

The panel recognizes that the institutional channels and modalities through which these monies are spent (or are not spent) are critical to the implementation and success of the measures it recommends. The panel therefore proposes the following guidelines:

- 1. The money should be under the management of NABARD.
- 2. The money will be allocated for and must be spent on the implementation of specific programmes, with measurable and time-bound objectives which will be provided by the panel.
- 3. NABARD can if necessary charge an agreed management fee for its own expenses, but any interest earned on un-spent balances must be credited to this management account.
- 4. The money is NOT to be treated as a "fund", such as a challenge fund which is dedicated to a general goal and is intended to elicit proposals for new ideas which are then approved (or not) according to how they appear to contribute to the general goal.
- 5. The money is to be spent on achieving the given objectives by 31 March 2012. If it is not so spent, it must be returned to the Government of India.
- 6. The programmes can be implemented by any qualified institution, but they must follow the specific models which have been identified by the panel.
- 7. It is expected that part of the programmes will be implemented by the specific institutions which are named in the panel's report and are responsible for having designed and implemented the programmes so far. Such other institutions as are selected to implement the programmes in different regions will probably be trained and supervised by the named institutions.

8. The expenditure and the achievement of the objectives, to be monitored and evaluated by an independent committee set up for the purpose by the Government. Such committee will have independent and qualified experts.