



Borlaug Dialogue 2008



Managing Climate Change, Agriculture and Rural Poverty

Rita Sharma
Secretary to Government of India
Ministry of Rural Development

Des Moines, 16 October 2008

Mahatma Gandhi's Talisman

I will give you a talisman. Whenever you are in doubt, or when the self becomes too much with you, apply the following test.

Recall the face of the poorest and the weakest man whom you may have seen, and ask yourself, if the step you contemplate is going to be of any use to him. Will he gain anything by it? Will it restore him to a control over his own life and destiny?

Then you will find your doubts and yourself melt away

Mahatma Gandhi [Last Phase, Vol. II (1958), P. 65]





Presentation Structure



- Rural Poverty, Agriculture & Environment**
- Vulnerability of Rural Poor to Climate Change**
- National Rural Employment Guarantee Act, 2005**
- National Action Plan on Climate Change, 2008**
- Way Forward**

850 Million Hungry People



Where are they?

- 62 % live in Asia
- 25 % live in India
- 25% live in Sub Saharan Africa
- 70% live in Rural Areas

Who are they?

- Small and marginal farmers, landless agricultural laborers, fisher-folk, herders, tribal and indigenous people, female-headed households especially infants, children, elderly and disabled

Landless Agriculture Laborers





Women in Rainfed Areas





Rural Poverty

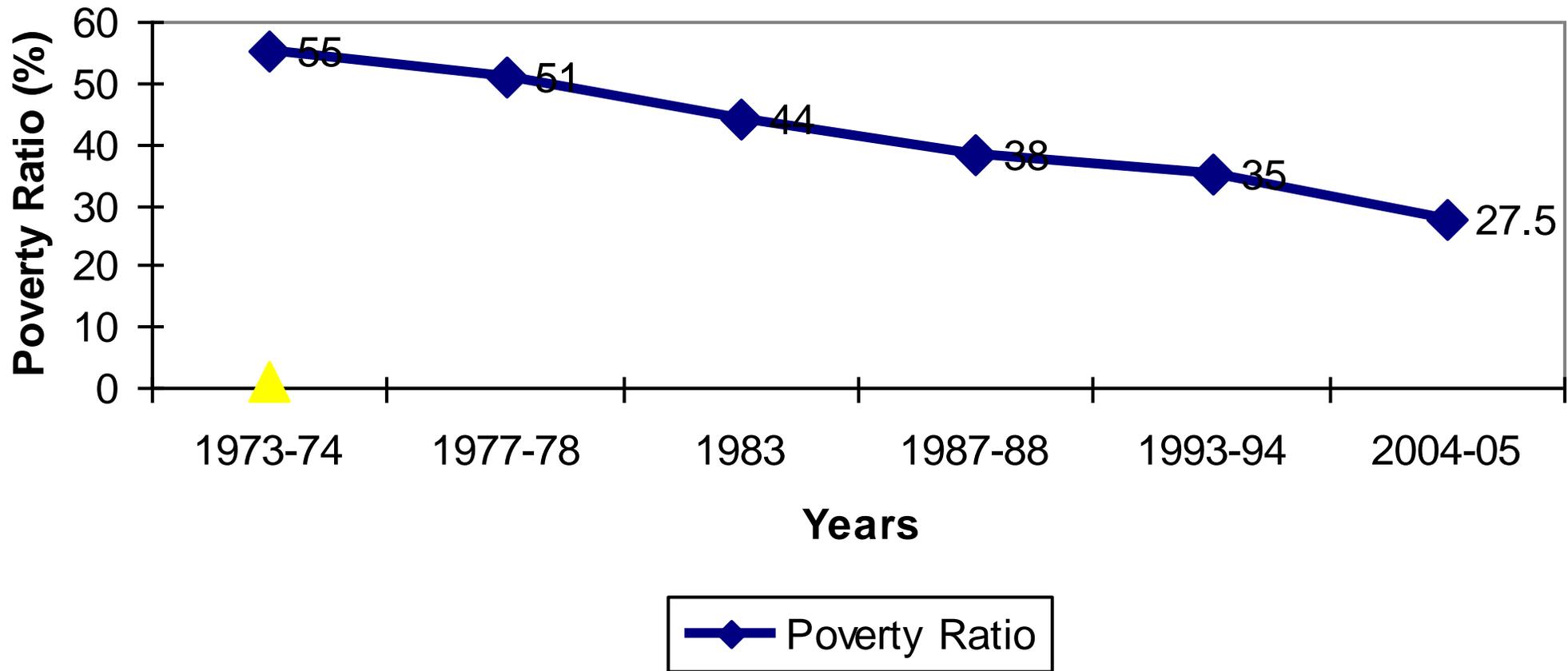


- ❑ **Livelihoods based on natural resources**
- ❑ **Natural resources threatened by stresses**
- ❑ **Climate Change is an additional stress**
- ❑ **Poor are most vulnerable to Climate Change**
- ❑ **Rural poor do not have resources to cope**

Poverty in India

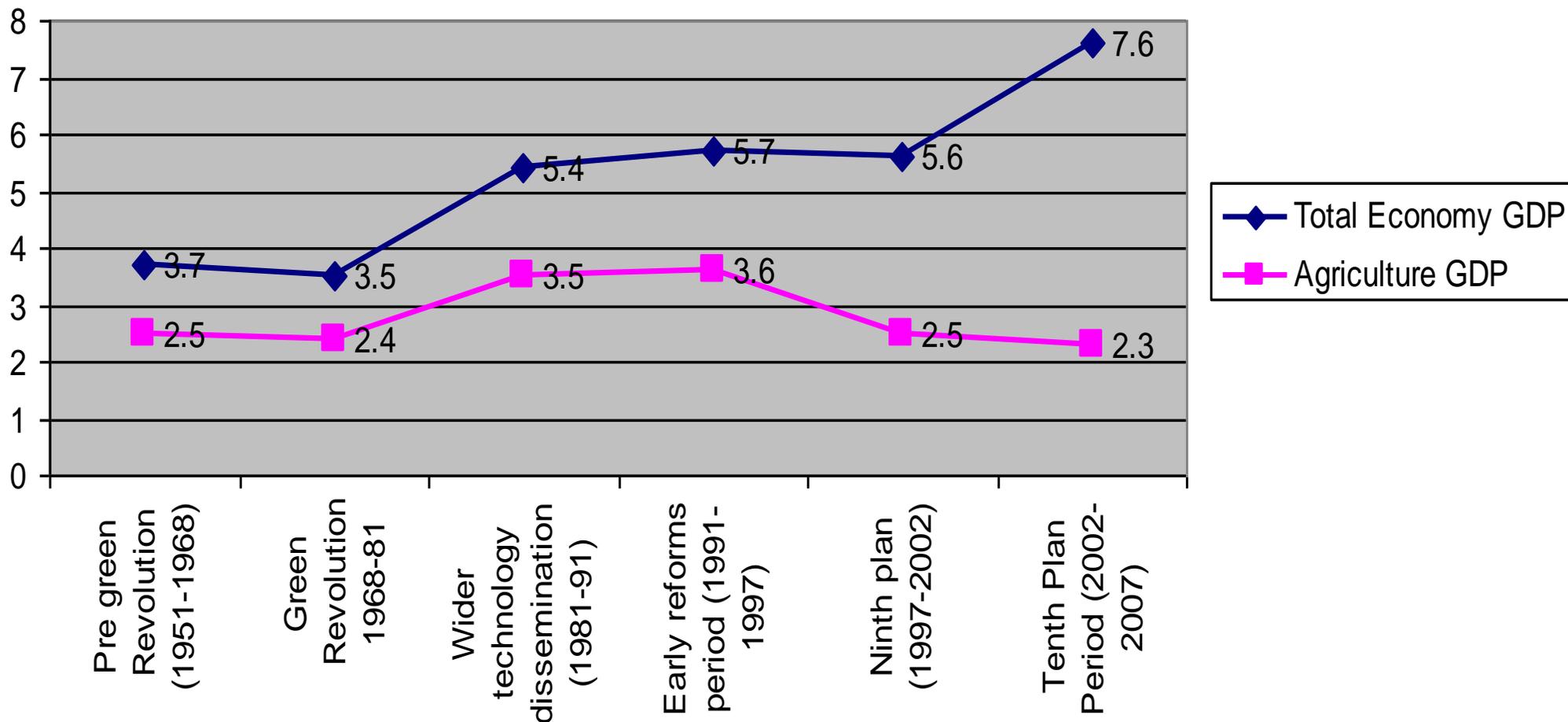


Poverty Ratio



Source: Different NSSO Rounds and 61st Round Consumer Expenditure Survey 365 days reference period
Below 2400 Kcal/ capita /day in Rural Areas ; Below 2100 Kcal/capita/day in Urban Areas

GDP Growth Rates in Agriculture



Indian Agriculture: Salient Features



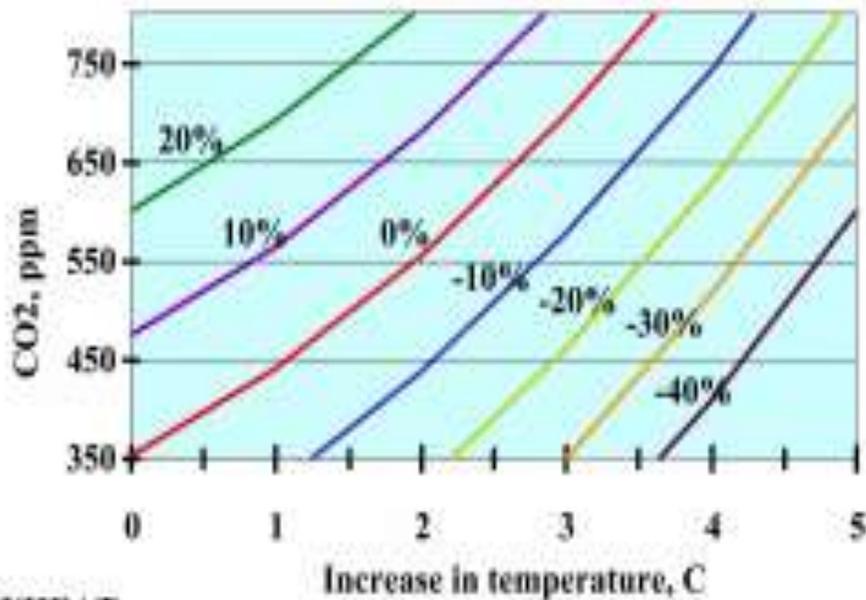
- ❑ **60% population dependent on Agriculture**
- ❑ **18% share of Agriculture in GDP**
- ❑ **Average size of operational holding: 1.3 ha.**
- ❑ **82% of operational holdings small & marginal**
- ❑ **18% landless agriculture labour**
- ❑ **Green Revolution by-passed rainfed areas**
- ❑ **60% of cultivated area is rainfed**

Climate Change Impacts on India



- ❑ Climate change will accentuate climate variability
- ❑ Increase in rainfall by 15-40%
- ❑ Increase in annual mean temperature by 3^o C to 5^o C
- ❑ Changes in frequency and magnitude of extreme events
- ❑ Gradual recession of Himalayan glaciers
- ❑ Likely adverse impacts on agriculture, water resources, health, forests, coastal areas
- ❑ Increased vulnerability to extreme events – droughts, floods, cyclones

Impact Assessments - Agriculture



WHEAT

Schematic response of wheat in Northern India to changes in CO₂ and temperature

Food production is sensitive to climate changes such as variability of rainfall and temperature changes within a season

NATCOM-1:

Simulated response of rice and wheat production due to increase in temperature by 2 degree indicate a decrease in grain yield of both the crops by 15-17%

Other studies indicate:

Every 1° rise in temperature decreases wheat production by 4-5 million tons

Decrease in productivity of fruits, vegetables, coffee, aromatic and medicinal plants due to small changes in temperature and rainfall

Rise in crop-weed competition, diseases and insect population with increase in temperature

Global reports indicate a loss in crop productivity by 10-40%



Enhancing Sustainable Agricultural Growth



Economic Growth: Inclusive, Broad-based, Pro-poor for faster poverty reduction

Higher Agricultural Growth:

- Higher public investment
- Focus on rainfed agriculture
- Diversification
- Effective input management
(irrigation, nutrients, crop protection, credit)
- Conservation Agriculture – More Crop Per Drop
- Risk management
- Agriculture Marketing Reforms

Rural Development Interventions for Inclusive Growth:



- 1. Wage Employment Generation**
- 2. Self Employment**
- 3. Skill Development Mission**
- 4. Social Security**
- 5. Rural Housing**
- 6. Rural Infrastructure – Roads & Markets**
- 7. Rural Sanitation & Drinking Water**
- 8. Land Resources Management**



NREGA



National Rural Employment Guarantee Act, 2005

www.nrega.nic.in



NREGA



- ❑ ***Provides at least 100 days of guaranteed wage-employment in a year to every household***
- ❑ ***Works undertaken address causes of chronic poverty like drought, deforestation, soil erosion***
- ❑ ***Strengthens grassroots democratic processes and infuses transparency and accountability in rural governance***



Registration



Village level Worker Making a Job Card



Unique Features of NREGA



- Rights-based Framework
- Demand Driven
- Decentralized through Local Self Government
- Self Targeting
- Transparency & Accountability / Access to Information
- ICT for pro-active disclosure & information in public domain
- Social Audit through Village Assembly

Workers with Job Cards





Job Card Holders



Informing People of their Rights





Training and Capacity Building



Scale of Implementation



	2006-07	2007-08	2008-09
No. of districts	200	330	615
No. of Households provided Employment (million)	21	34	45 (estimated)
No. of days per Household	43	42	60 (estimated)
Average wage rate (Rs)	65	75	85 (US\$ 2 approx)
Earnings per Household (Rs) (average)	2795 (US\$ 62)	3150 (US\$ 70)	5100 (estimated) (US\$ 113)
Women employed (percent)	41	43	49
Schedule Caste & Tribes employed (percent)	61	57	57
Expenditure (billion \$ US)	2.5	4.0	7.0 (estimated)

Wage Payment through Post office



Wage Payment through Smart Card



Gram Sabha – Village Assembly



Decentralized Planning & Implementation





राष्ट्रीय ग्रामीण रोजगार गारंटी योजना ग्राम पंचायत ग्राम- झरगवाँ

1. स्वीकृत कार्य का समय - झरगवाँ बस्ती से महिला सरंढ तक

पडुक तब तक

- ग्रामीण परिवारों का रोजगार हेतु पंचायत ग्राम पंचायत द्वारा किया जाएगा।
- आवेदक को कार्य आवेदन ग्राम पंचायत में किया जाता होगा।
- कम से कम 50 ग्रामीण परिवार के व्यस्क सदस्यों द्वारा मोग किये जाने पर 15 दिनों के भीतर रोजगार उपलब्ध किया जाएगा।
- परिवार के स्थानीय निवास के 5 कि.मी. के दायरे में रोजगार उपलब्ध कराया जाएगा।
- मोग किये जाने के 15 दिनों के भीतर कार्य शुरू दिये जाने की स्थिति में आवेदक को वेरोजगारी भत्ते की गारंटी होगी किन्तु कार्य शुरू होने के बाद भी आवेदक को 100 दिवस रोजगार प्राप्त होने की गारंटी दी जाएगी।
- वेरोजगारी भत्ते का भुगतान प्रथम 30 दिनों के लिये न्यूनतम मजदूरी ¼ हिस्सा होगा तदुपरान्त न्यूनतम मजदूरी का आधे होगा।
- न्यूनतम मजदूरी दर 60 ₹. होगा अथवा राज्य सरकार द्वारा निर्धारित कृषि मजदूरी दर जो भी हो भुगतान किया जाएगा।
- रोजगार के दौरान मृत्यु हो जाने पर 2500-3000 अन्तरिम राहत का भुगतान किया जाएगा।
- कम से कम 14 दिनों का निरन्तर रोजगार उपलब्ध कराया जाता आवश्यक है।

04/06/2007

Transparency at Grassroots



कार्य का विवरण	
कार्य का नाम - कृषि सिंचन -	सम / कार्य प्रकार -
विवरण -	पेटेजरीस
वर्ष -	2006-2007
व्योजना - राष्ट्रीय राजस्व सार्वजनिक योजना	
कार्यकारी एजेंसी - ग्राम पंचायत	
अंशिकृत राशि - 80,000/-	समाप्ति - मजदूरी
कार्य प्रारंभ का दिनांक -	कार्य पूर्ण होने की तिथि -
समाप्ति की प्राप्ति	
समाप्ति का नाम	कार्य की तकनीकी सहायता (सोर्सिफिकेशन)
स्तिमित -	
दिनांक -	
मिटर -	
प्लेन -	
समाप्ति का मजदूरी की राशि -	
कुल राशि -	
अनुदान राशि -	
अनुदान -	
श्रीक पर उपलब्ध अतिरिक्त -	
वित्तिक मजदूरी का -	₹. 58-73
अधिक जानकारी के लिये संपर्क - सा. सेवा / जन. पंचायत	



Impact on Poverty



- Reduction in distress migration
- Major increase in wage income
- Enhanced food security
- Improvement in wage negotiation power
- Increase in wage rates
- Equal wages for men and women
- Major safety net
- Financial Inclusion
- Insurance of wage earners

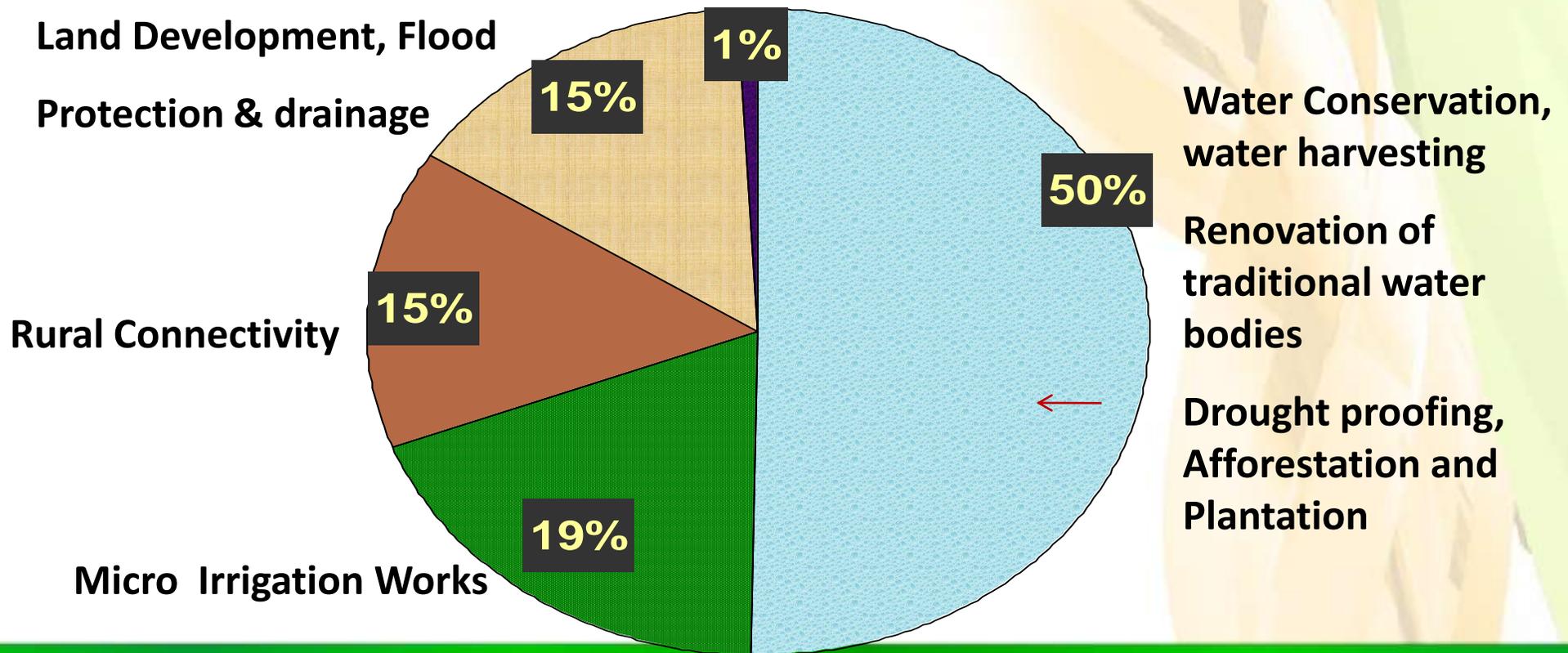


Impact on Natural Resource Base Improved Rural Livelihoods



34 million households employed on 1.8 million works in 2007-08
Water Tables beginning to get recharged, improvement in land productivity

NREGA yielding **Co-benefits** of Adaptation to Climate Change





Water Conservation





Women Workers





Water Conservation





Desilting of Irrigation Channel



**KATHIRIPULAM- DESILTING OF CHANNEL (Rs. 3.20 LAKHS)
NAGAPATINNAM**

Plantation Works



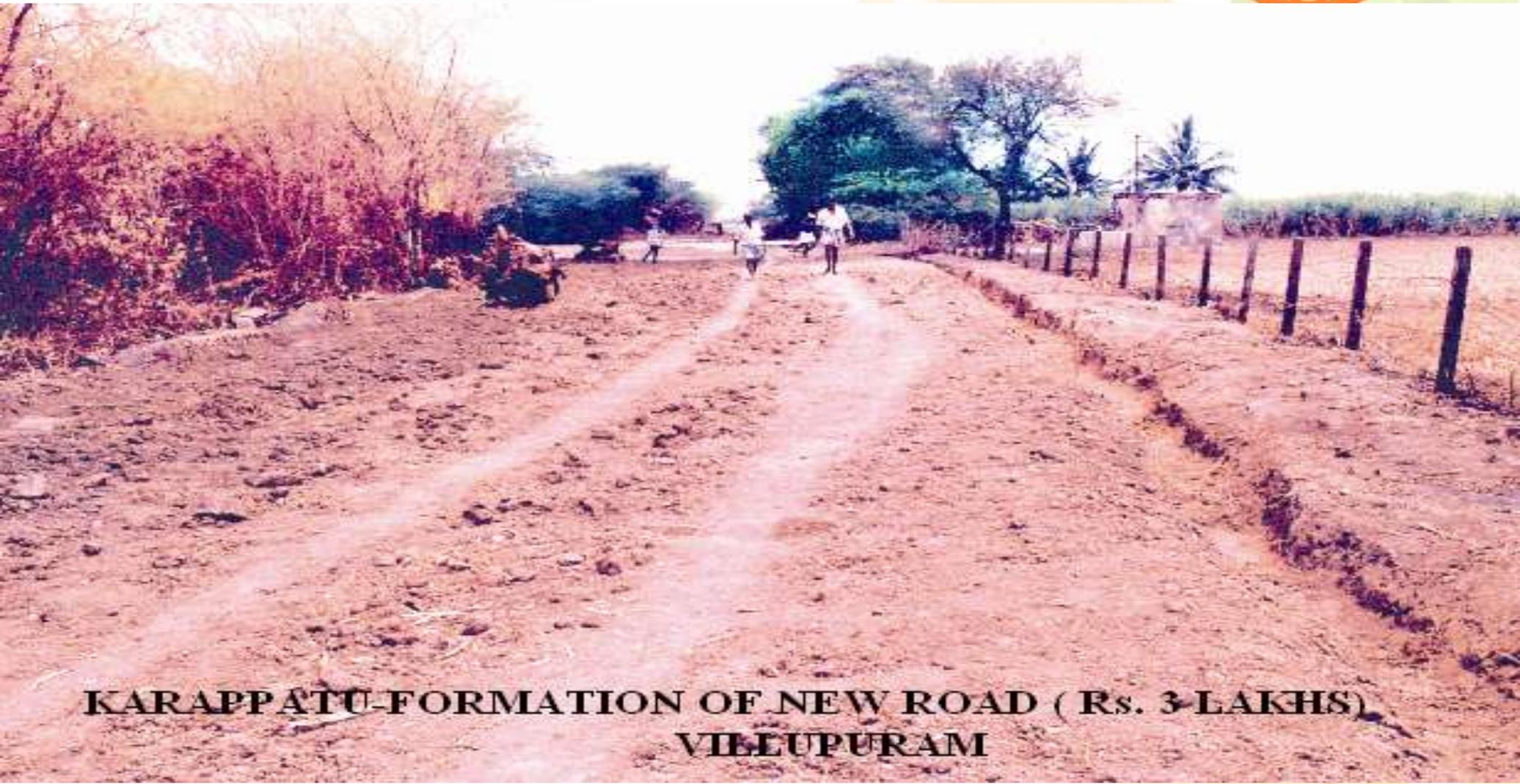


Tree Plantation





Rural Road Construction



**KARAPPATU-FORMATION OF NEW ROAD (Rs. 3 LAKHS)
VILLUPURAM**



NREGA in News

On Their Account
Job scheme has led to expansion of the formal banking sector

Fewer workers leaving Bihar this year

A new deal for poor farmers
GUEST COLUMN
JEFFREY D SACHS

NREGA cuts rural migration to cities
Deccan Chronicle, Chennai, August 5, 2007
Chennai, August 4: The National Rural Employment Guarantee Act (NREGA) has reduced migration from rural to urban areas in Tamil Nadu, the NREGA council, a statutory body to monitor the scheme nationwide, said on Saturday

Asia-Pacific meet hails 'path-breaking' NREGA
The labour minister, Mr Oscar Fernandes, told the meeting, organised jointly by his ministry and the International Labour Organisation (ILO), that NREGA targeted to provide at least 100 days of employ...

Insurance cover for 2.11 crore NREGA workers
Sandip Das
Posted online: Jul 21, 2008 at 2357 hrs
New Delhi, Jul 20: After ensuring that all the beneficiaries under the National Rural Employment Guarantee Act (NREGA) have access to formal banking system through banks and post offices, the Centre has decided to extend insurance cover to all 2.11 crore workers under the United Progressive Alliance's flagship wage employment programme.

Rural India sets a world record for bank accounts

Sandip DaS Posted online: Aug 01, 2008 at 2343 hrs, Financial Express

New Delhi, Jul 31: To ensure timely payments and avoid the involvement of middlemen in wage payment to workers under the National Rural Employment Guarantee Act (Nrega), more than two crore saving bank accounts have been opened in banks and post offices across the country. This is the largest number of bank accounts linked to a development programme across the globe.

Work Inspection





Climate Change: National Action Plan 2008



- ❑ **Focuses on sustainable rural livelihoods**
- ❑ **Integrates climate change into the development planning process**
- ❑ **Emphasises poverty eradication and sustainable development best form of adaptation**
- ❑ **Identifies measures that promote development objectives, while yielding co-benefits for addressing climate change effectively.**
- ❑ **Outlines steps to simultaneously advance development and climate change-related objectives of both adaption and mitigation**



National Action Plan (NAP) on Climate Change

- 8 National Missions launched to enhance:**
 - Adaptation to climate change**
 - Ecological sustainability of India's development path**
 - ❖ 5 Adaptation Missions – Sustainable Agriculture, Sustainable Habitat, Water, Green India, Himalayan Eco-system**
 - ❖ 3 other Missions on Energy Efficiency, Solar Energy, Strategic Knowledge for Climate Change**

Way Forward

Changing the way to combat poverty



- 1. Creation of Rights / Legal Guarantees for rural poor**
- 2. Setting-up well defined Systems to give effect to the Rights**
- 3. Decentralized democratic planning & implementation**
- 4. Earmarking adequate financial resources**
- 5. Social Audits for transparency and accountability**
- 6. Access to Information at every stage of implementation [if necessary, through legal means (Right to Information Act)]**
- 7. IT platform for placing all information in public domain**
- 8. Innovative use of ICT for development of financial products**
- 9. Effective grievance redressal mechanisms**
- 10. Judicial System/ Courts to enforce Rights against State violation**



Way Forward



Poverty is the worst polluter

- **Boosting sustainable agricultural growth**
- **Recognizing that rural livelihood strategies, which yield co-benefits of adaptation are the best form of coping with climate change**
- **Poverty alleviation programs that simultaneously (i) reduce poverty, (ii) promote sustainable agriculture and (iii) enhance adaptation to climate change**
- **Integration of climate change concerns into economic policy and development planning**
- **For lasting solution adaptation must go together with mitigation by developed countries together with lifestyle changes**



*“The Earth has enough
resources to meet
people’s needs,
but will never have
enough to satisfy
people’s greed”.*

Mahatma Gandhi 1927



Thank You