

# **Economic Impacts of MNREGA in Drought Prone Districts of Karnataka: Evidences from VDSA Villages**

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# Karnataka at a Glance

- Karnataka in Deccan Plateau – second most arid, next to Rajasthan
- 66% of population is in rural areas, with Agriculture as the mainstay
- >73% of Karnataka farmers are small and marginal with an average landholding of < 1ha (GoK, 2007)
- The majority of rural households are highly vulnerable to climate shocks and risk and uncertainties in agriculture.
- Thus MGNREGA as a **key social protection measure** is vital not only ensuring **wage employment**, but also to improve **natural resource base** and **livelihood security** of the poor

- **Districts covered under MGNREGA**

- **I Phase (2006-07) : 5 districts**

- **II Phase (2007-08) : 6 districts**

- **III Phase (2008-09) : 18 districts**



# Broad Focus

- Assessing the impacts of social protection program (MGNREGA) on poor household labour participation, income variability and assets created and related welfare indicators in SAT India.
- The impact evaluation is done in selected VDSA villages belonging to SAT India viz., Andhra Pradesh, Maharashtra, Gujarat, Karnataka, and Madhya Pradesh.
- In these villages, ICRSAT has been collecting high frequency based comprehensive panel data survey of about 800 households since early 2009.
- **Data base: from 18 VDSA villages across 5 states of India**
- **Karnataka: 1) Macro picture compared dry (kar and Raj) with irrigated (AP)**
- **2) Within Karnataka 6 districts- 2 VDSA, 4 other**

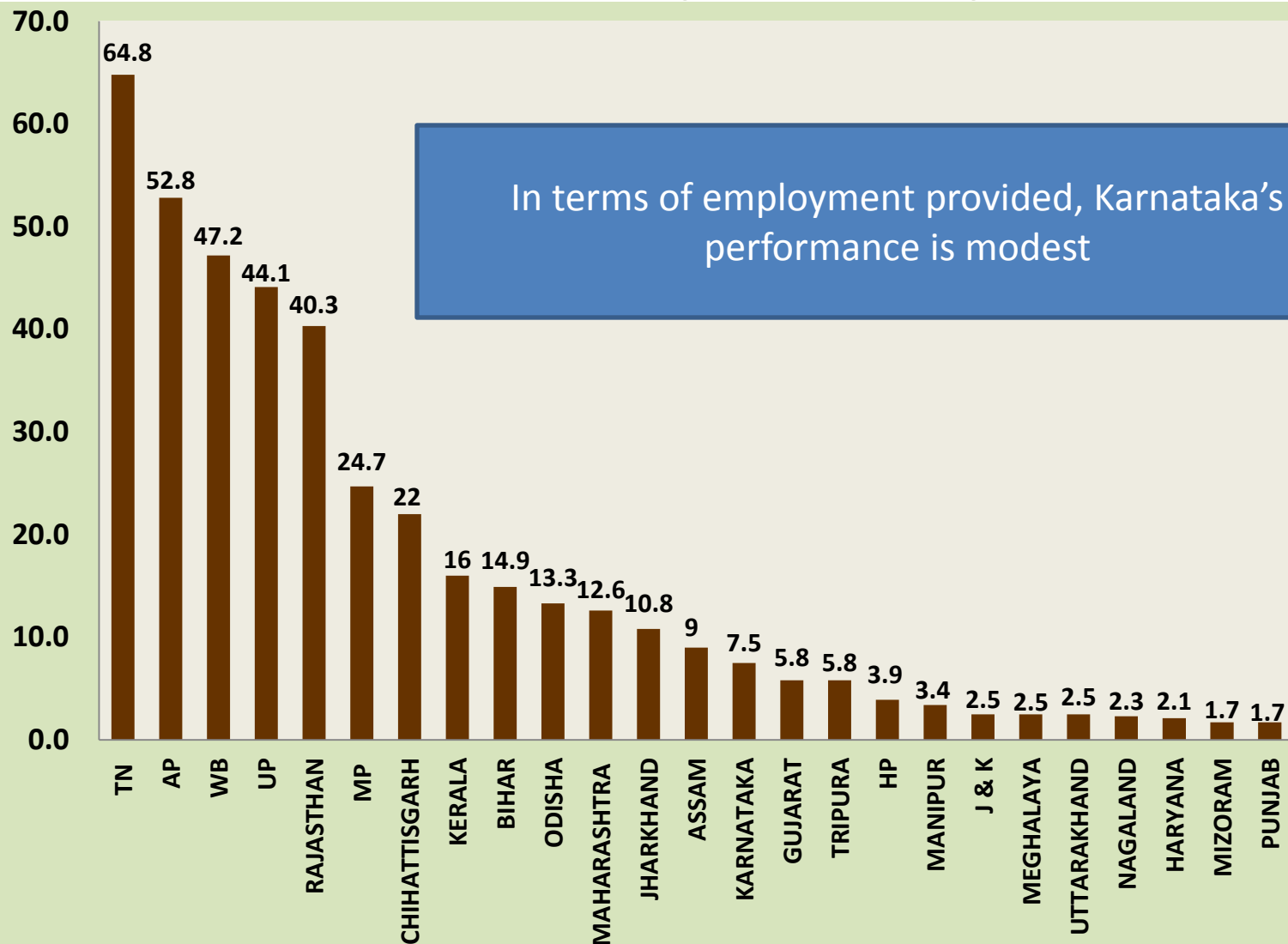


# Issues covered

- **Macro level Scenario:** employment profile
- Whether MGNREGA programme has been successful in providing 100 days of employment per annum to rural families demanding employment
- **Micro-level evidences** based on VDSA Village data
- Works executed, expenditure and benefits derived
- To what extent the MNREGA has offered social protection to the rural poor?
- Economic scarcity of labour- can NREGA create labour scarcity? Or NREGA is the tip of the iceberg, the real cause is Non Agri wages?
- What are the links among wage rates in MGNREGA, agri and non agriculture, what do these imply?
- Is backward bending supply of labour operating?



# Households provided Employment in FY 2012-13 (in 100,000)



# Employment sought and offered by MGNREGA in sample drought-prone and irrigated states of India: 2012-13

Particulars	Karnataka	Rajasthan	Andhra Pradesh
Households registered under MGNREGA for employment (millions)	5.7	9.9	12.6
Proportion of households seeking (or demanding) MGNREGA employment	33.3	39.3	53.7
Proportion of households offered employment under MGNREGA	67.5	86.3	84.5
Employment provided in No. of person days per household	49	46	45
Proportion of women provided employment	47	68	59
Proportion of households availing 100 days of MGNREGA work	7.7	8.6	8.5

Source: <http://nrega.nic.in/Netnrega/stHome.aspx>

Only 30 - 50 per cent of the households registered under MGNREGA, actually demanded employment which is due to favorable labour market outside MGNREGA and agriculture.



## Age-wise details of employed persons under MGNREGA in selected states of Karnataka, Rajasthan and Andhra Pradesh: 2013-14

Age group	Karnataka	Rajasthan	Andhra Pradesh
Below 40 years (%)	56.4	52.2	40.6
40-60 years (%)	39.1	39.2	49.7
Above 60 years (%)	4.5	8.6	9.7
Total No. of employed persons (in millions)	5.4	5.7	10.1

Source: <http://nrega.nic.in/Netnrega/stHome.aspx>

- Around 40-50% of the persons employed under MGNREGA were below 40 years of age implying MGNREGA employed able-bodied persons in Karnataka, Rajasthan and Andhra Pradesh.



# Season-wise work demand pattern under MGNREGA in selected states: 2013-2014

Season	Proportion of persons employed in MGNREGA as % of annual demand		
	Karnataka	Rajasthan	Andhra Pradesh
Kharif (%)	14.8	32.6	30.7
Rabi (%)	57.3	25.9	16.1
Summer (%)	27.9	41.5	53.1
Total annual demand for employment (in million persons)	10	16	47

Source: [http://164.100.129.6/netnrega/demand\\_emp\\_demand.aspx?lflag=eng&file1=dmd&fin=2013-2014&fin\\_year=2013-2014&source=national&Digest=IU%2fDjg5NeLf5v8FDQ9nOhw](http://164.100.129.6/netnrega/demand_emp_demand.aspx?lflag=eng&file1=dmd&fin=2013-2014&fin_year=2013-2014&source=national&Digest=IU%2fDjg5NeLf5v8FDQ9nOhw)

- In Karnataka, more than 50 % of the demand for MGNREGA work was during *rabi* season and around 28 % was in summer, this has implication on labour scarcity
- About one-third of the annual demand for MGNREGA work was during *kharif* in Andhra Pradesh and Rajasthan, while in Karnataka it is negligible.





## Duration-wise employment provided under MGNREGA in selected states: 2013-2014

Number of days work undertaken by families per year	Proportion of households attending to work (%)		
	Karnataka	Rajasthan	Andhra Pradesh
01 to 30 days	40.4	41.2	42.8
31 to 60 days	26.0	31.4	28.2
61 to 99 days	25.9	18.8	20.5
100 & more days	7.7	8.6	8.5
Total No. of households attending MGNREGA work	7	12	14

Source: <http://nrega.nic.in/Netnrega/stHome.aspx>

- The majority of households in Karnataka (66%), Rajasthan (72%) and Andhra Pradesh (70%) were provided employment for less than 60 days under the MGNREGA Programs.
- Only 8 percent of the households in Karnataka, 9 percent of the households each in Rajasthan and Andhra Pradesh got employment for 100 days.



# BPL families employed under MGNREGA in Karnataka, Rajasthan and Andhra Pradesh: 2010-11

Particulars	Karnataka	Rajasthan	Andhra Pradesh
No. of BPL families registered in MGNREGA (in millions)	1.1	0.7	0.0
Proportion of BPL families registered out of the total families registered in MGNREGA	21.2	6.5	0.0
Proportion of BPL families in the state	17.4	13.7	11.1

Source: <http://nrega.nic.in/MISreport.htm> (26/27-07-2011)



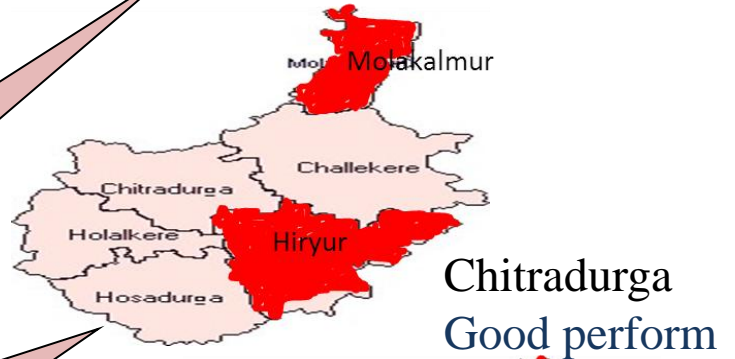
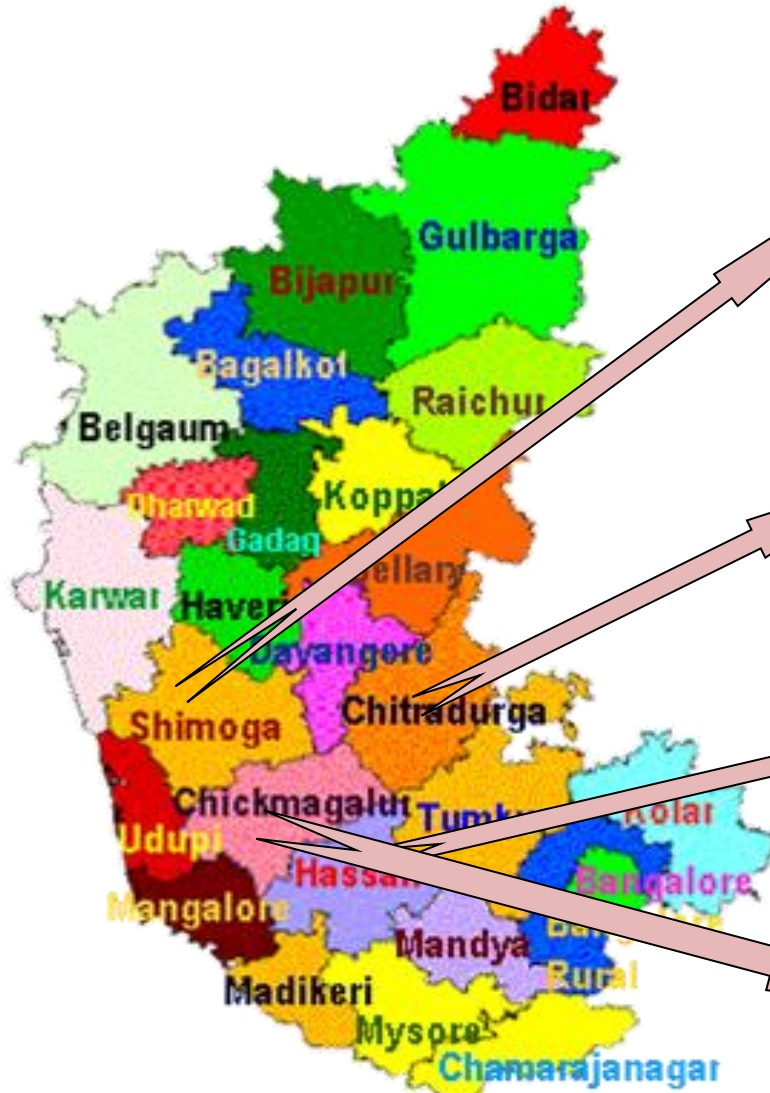
# Karnataka: District selection Criteria and District Profile

- Based on the **financial performance** and **number of person days of employment** generated, the districts of the state into two categories
- **Good performing districts:** Chitradurga & Davangere
- **Passive performing districts:** Shimoga and Hasan
- Accordingly a sample of districts was selected
- In the selected districts, two taluks / blocks were selected considering the: Financial performance and person days of employment generated
- **VDSA Villages: Bijapur District:** MB Halli and Kapanimbargi
- **Tumkur District:** Tharati and Belladamadagu

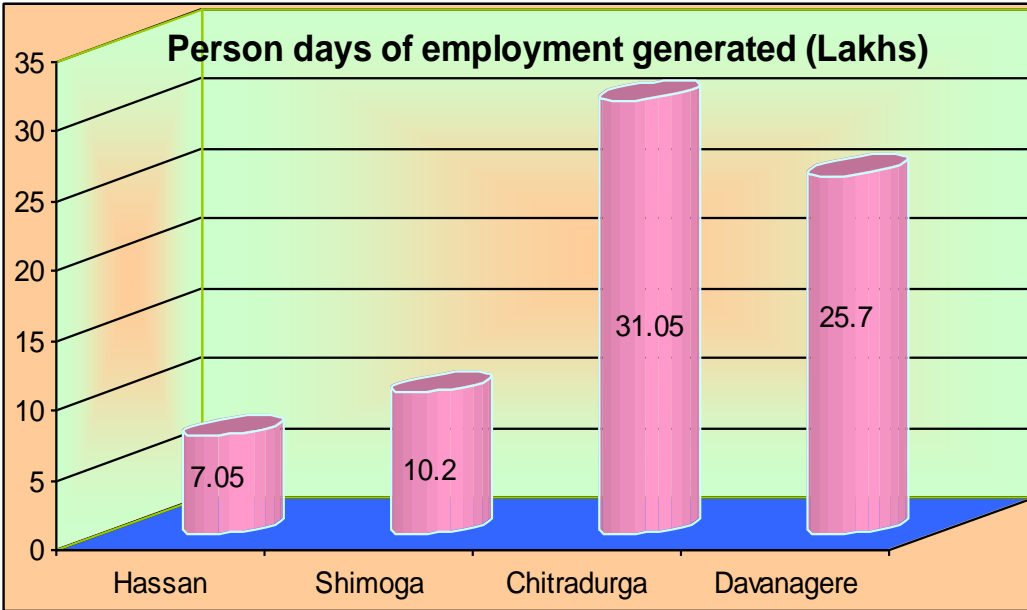


# Survey Locations

VDSA Villages



**Person days of employment generated (Lakhs)**



District wise person days of employment generated in Karnataka (2008-09)

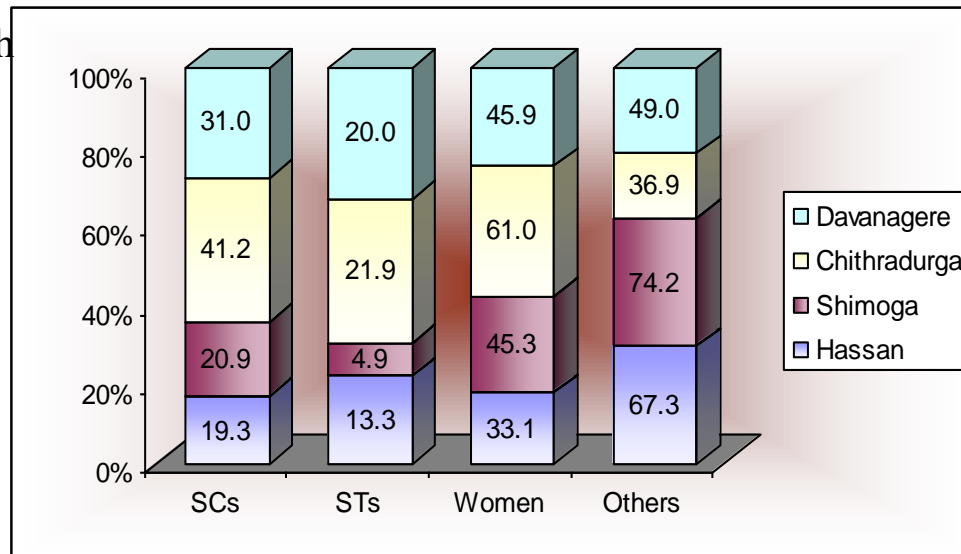
Participation of different categories of Beneficiaries with respect to person days in selected districts of Karnataka (2008-09)

**SC & ST participation rate:**

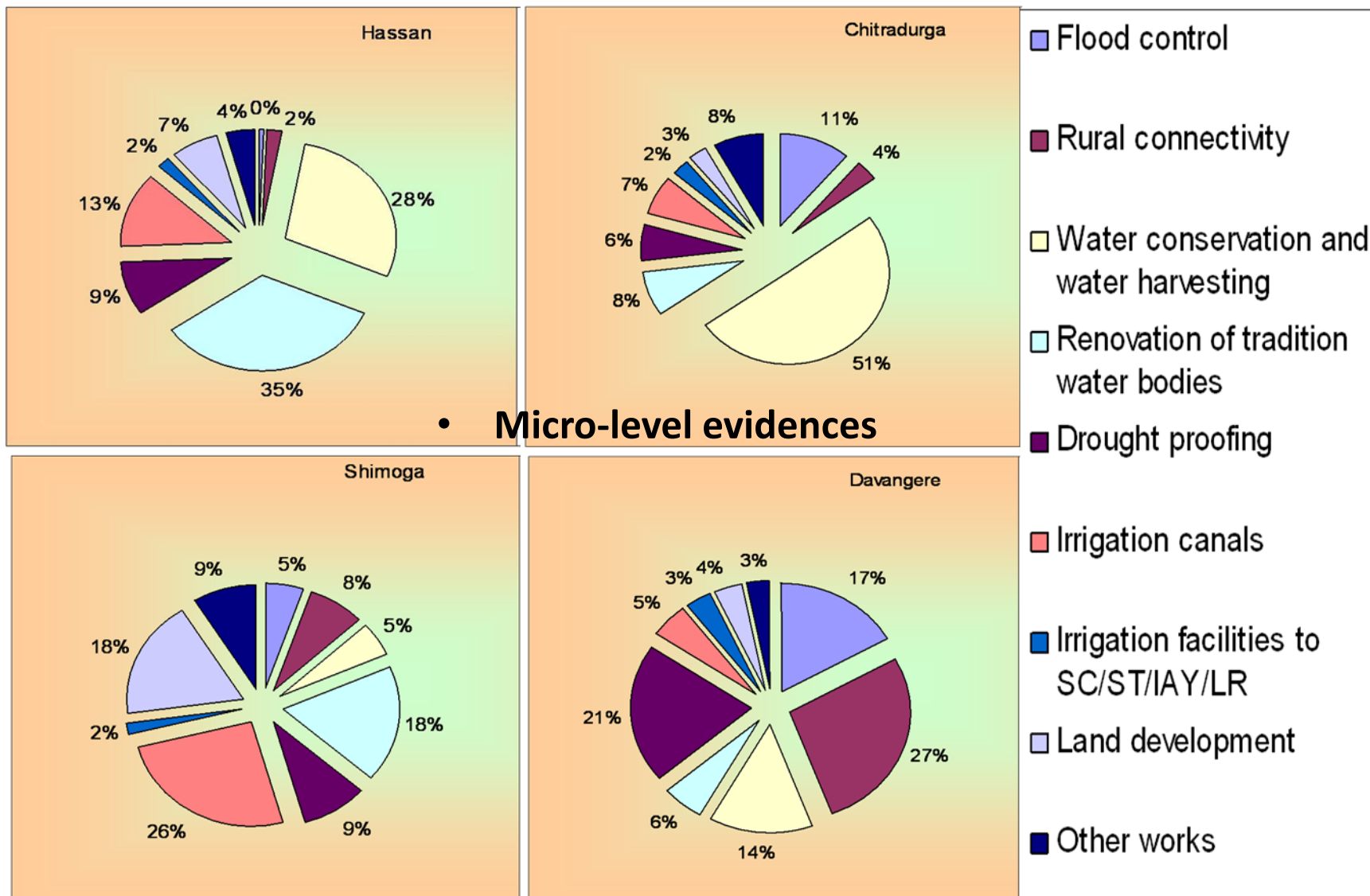
SC : 19-41%

ST : 5-22 %

**Inclusiveness**



# Utilization of funds under NREGA



In all the 4 districts, water conservation and renovation of traditional water bodies account for more than 50 percent of the amount utilized under NREGS





# Impact of NREGA on Village

Work Executed	Impacts	District / Taluk
1 Desiltation of Tanks	Improvement in water impounding. Facilitating ground water recharge. Double cropping. Increased irrigated area. Improved water bodies.	All districts
2 Water conservation practices like construction of Check dams	Improvement in water table was discernible. <b>Water table improved by 50 to 100 feet.</b>	All districts
3 Regeneration of Water bodies	Drinking water available for Livestock even during the summer months.	Davangere (Harappanahalli) and Hassan
4 Clearing of drainages and diversion of flood Water flow.	Drainage related problems like flooding of roads and houses in the low lying areas during rainy days, blocking vehicular traffic and stagnant water creating health hazards solved	Shimoga (Bhadravati), Chitradurga (Hiriyur), Davangere
5 Bunding and Land development activities	Reduced soil erosion and improved land productivity.	Shimoga (Bhadravati), Hassan (Arasikere)
6 Road works	Improvement in rural Connectivity.	Shimoga (Bhadravati)



## Benefits accrued by NREGA from distillation of Irrigation tank

<b>Particulars of benefits accrued</b>	<b>Before NREGS work</b>	<b>After NREGS work</b>
Area irrigated by the tank(acres)	80	160(in two seasons)
Cropping intensity(%)	100	200
Paddy production in a year in the tank command area(quintals)	2000	3800
Additional returns(Rs.)	-	20 lakhs
No.of families benefited by additional irrigation water availability	-	146
Employment generated by NREGS(person days)	-	7102
No.of bore wells recharged	-	5
Water availability for animals	-	In all the seasons

Year:2007-8

Type of work executed: Distillation of tank and strengthening of tank bund

Total budget:Rs.10.3lakhs( Material Rs.4.48 lakhs, labour:Rs.5.82 lakhs)



# Impacts of NREGA on Village development



# Salient features of VDSA Villages in Karnataka

Particulars/villages	Bijapur		Tumkur	
	Markabinahalli	Kapanimbargi	Tharati	Belladamadugu
# of HH's	392	320	401	276
Total geographical area (Ha)	1001	826	519	496
Cultivated area (Ha)	911	876	172	355
% of Irrigated area	0	20	42	27
% of landless households	28	33	28	10
Family size	6.47	6.23	4.24	4.43
Literacy	64	60	24	49
Size of holding (Ha)	3.29	3.6	1.03	1.45
Seasonal migration (% of HH)	-	12	-	-





# Bijapur and Tumkur - MGNREGA study districts

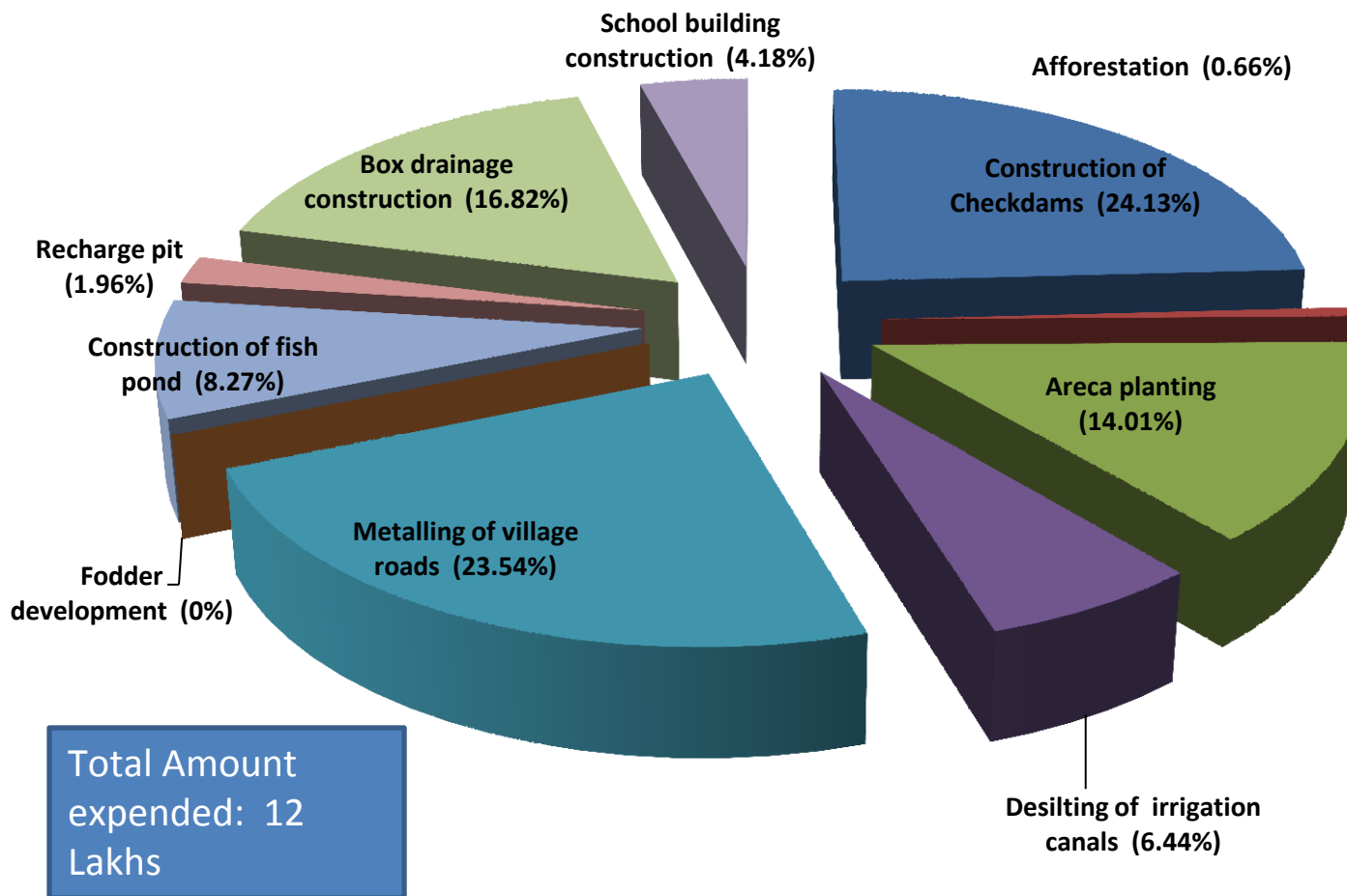


# MGNREGA work in VDSA villages of Karnataka (Rs. 155/day)

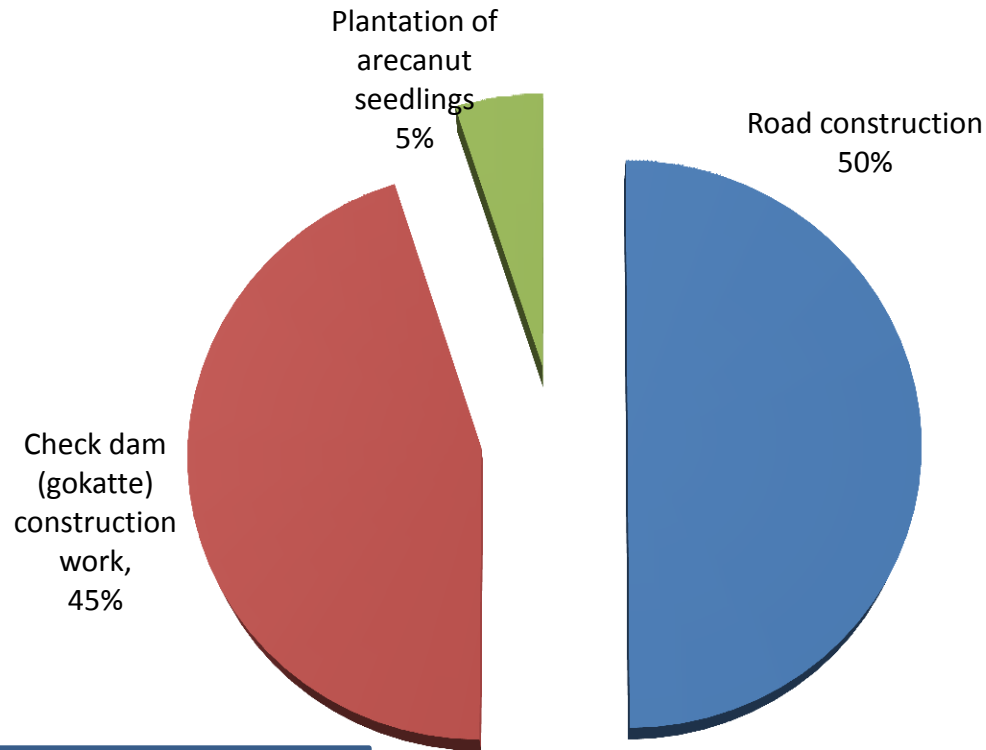
<b>Village</b>	<b>No. of Beneficiaries</b>	<b>Total Amount disbursed</b>	<b>Benefit/house hold</b>
Kappanimbargi	180	1534500	8525
Markabbinahalli	138	192510	1395
Tharati	31	289695	9345
Belladamadagu	25	116250	4650



# Proportion of funds spent on different activities under MGNREGA works in Tharati



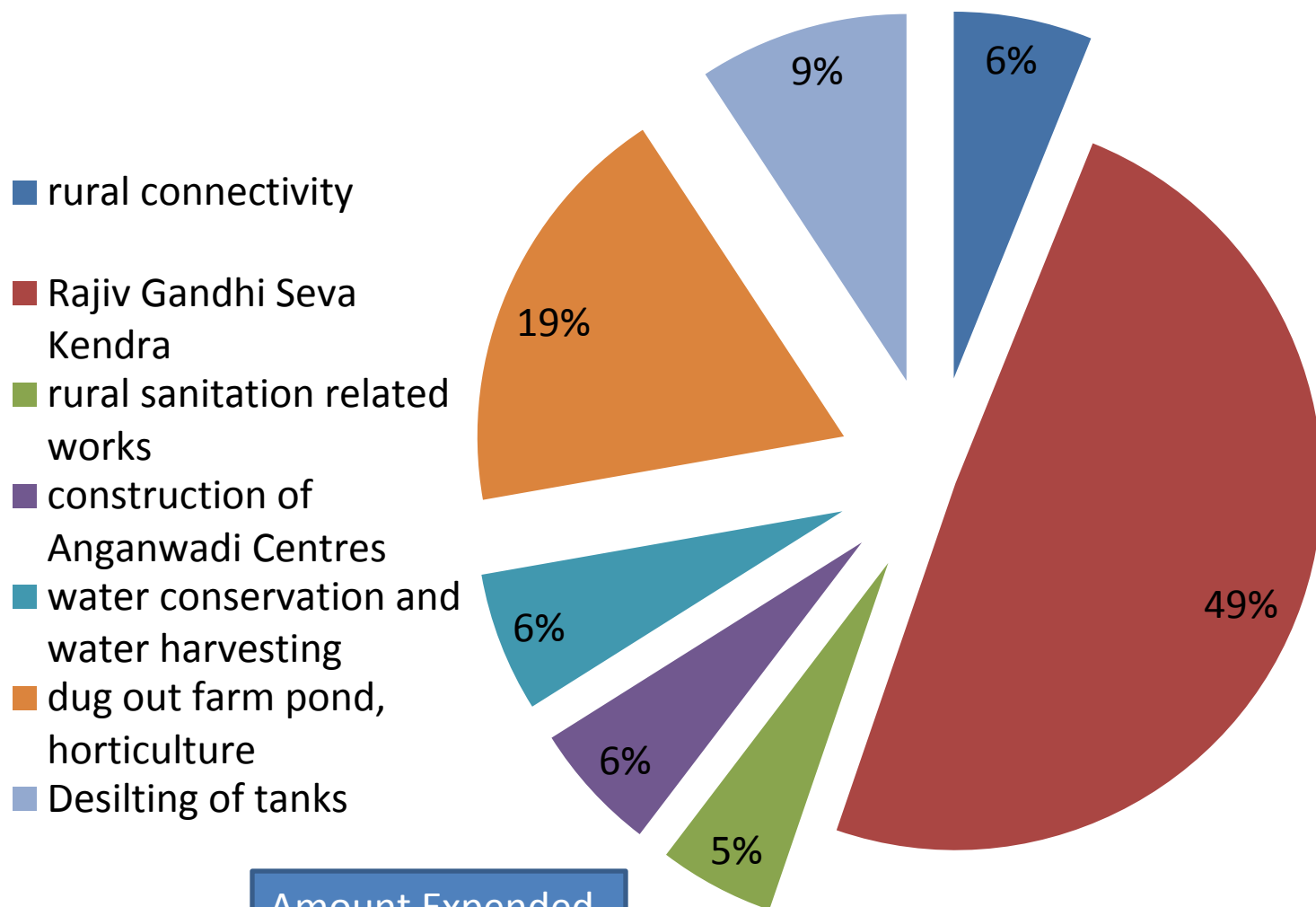
# Proportion of fund spent on different activities under MGNREGA works in Belladamadugu



Amount Expended  
2 Lakhs



## Proportion of fund spent on different activities under MGNREGA works in Markabbinahalli



Amount Expended  
10 Lakhs



# MGNREGA: Benefits derived

## Community level benefits:

### Desilting irrigation tanks, construction of check dams:

- Bore wells are recharged - water table improved,( increased area under irrigation 0.25 to 0.5 ac)
- Livestock- source of drinking water even during summer months.
- **Road works:** Rural connectivity has improved
- **Construction of school building:** Village children benefited due to reduction in drudgery of travelling to far away schools.
- **Construction of toilets:** Improving sanitation

## Individual level:

- Helped in establishing orchards / plantations - a long term benefit.
- Use of silt as manure (Savings on FYM)-improved soil fertility





# Arecanut seedlings planted under MGNREGP in Tharati





# MNREGA works executed at Markabinahalli



Desiltation of village tank



Rajiv Gandhi Seva Kendra under Construction



Drainage channel constructed



Public toilet constructed

# MGNREGA: Job card holders (Tharati)

Year	No. of families having job cards	No. of workers included in the job cards		
		Men	Women	Total
2009-10	162	301	224	525
2012-13	37	58	48	106

## Reasons for decrease in the participation of MNREGA works (FGM):

1. Men have more remunerative alternatives- engaging in **sand mining**, working in **construction and other non-farm activities**
2. Women are engaged in **stringing flowers, processing tamarind** which does not include drudgery

# Wage differential (Wage rate in Rupees/day)

Year	Markabinahalli			Tharati			Belladamadugu		
	MGNR EGA	Agriculture		MGNR EGA	Agriculture		MGNR EGA	Agriculture	
		Men	Women		Men	Women		Men	Women
2009-10	100	200	100	100	200	100	125	180	65
2012-13	155	300	150	155	250	100	155	215	80

- In general wages have grown exponentially
- Compared to MNREGA, Agricultural wage rates for men are higher
- The workers engaged in sand mining earn @ Rs. 350/- per person, per truck load of sand loaded, which is done in approximately one hour.
- Workers engaged in construction activity earn upwards of Rs. 350/- per day per person.
- So, most of the workers neither interested in MGNREGP activities nor in agriculture

# Divergence between FGM and Admin data, *Contd...*

Year	Official records						FGM Information
	Total person days of work provided	Total amount disbursed (Rs.)	No. of families worked *	Person days of work per family per year *	Average income per family per year (Rs.) *	MGNR EGA wage rate (Rs. per day)	
2010-11	1302	1,62,750	27	49	6125	125	Machines were used to execute the work
2011-12	739	92375	17	44	5500	125	
2012-13	1869	2,89,695	31	61	9455	155	

\* Figures worked out using data from the official records

# A cornered cat, there is no other go other than using machinery (Tharati)

- The **MGNREGA** wage rates are not as remunerative as **market wages** in non-farm activities.
- Increasing opportunities for men labor outside agriculture.
- Women cannot do the drudgery work done by men.
- The compulsive need to execute the works in rural areas.
- The use of machine labour is by default in MGNREGA.



# Labour scarcity in agriculture sector: *Is it due to the MGNREGP activities?*

FGM: **NO**

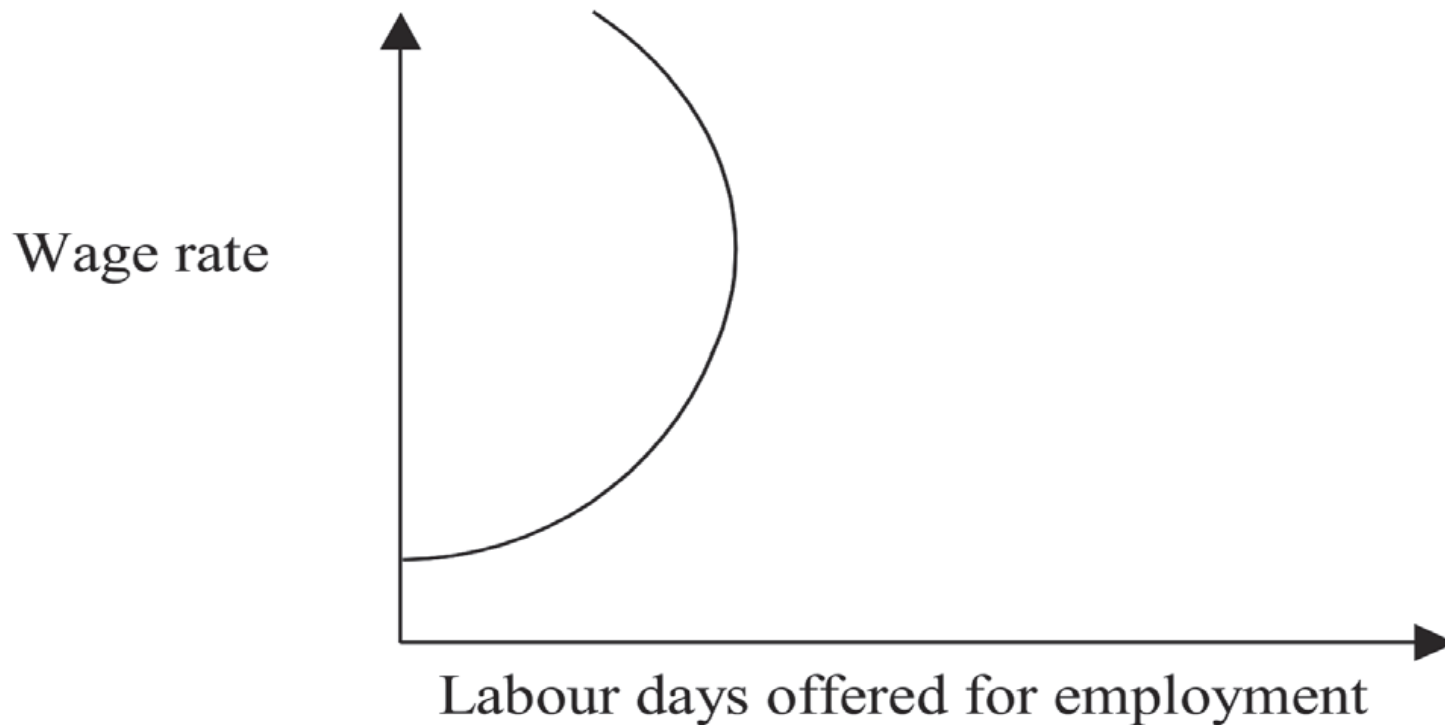
Economic scarcity of labour is due to ...

- Increasing opportunities for men labor outside agriculture, for example in construction, sand mining, tractor service, carpentry and related business activities
- The NREGA wage rates cannot match market wages in these activities





# Backward bending supply of labour

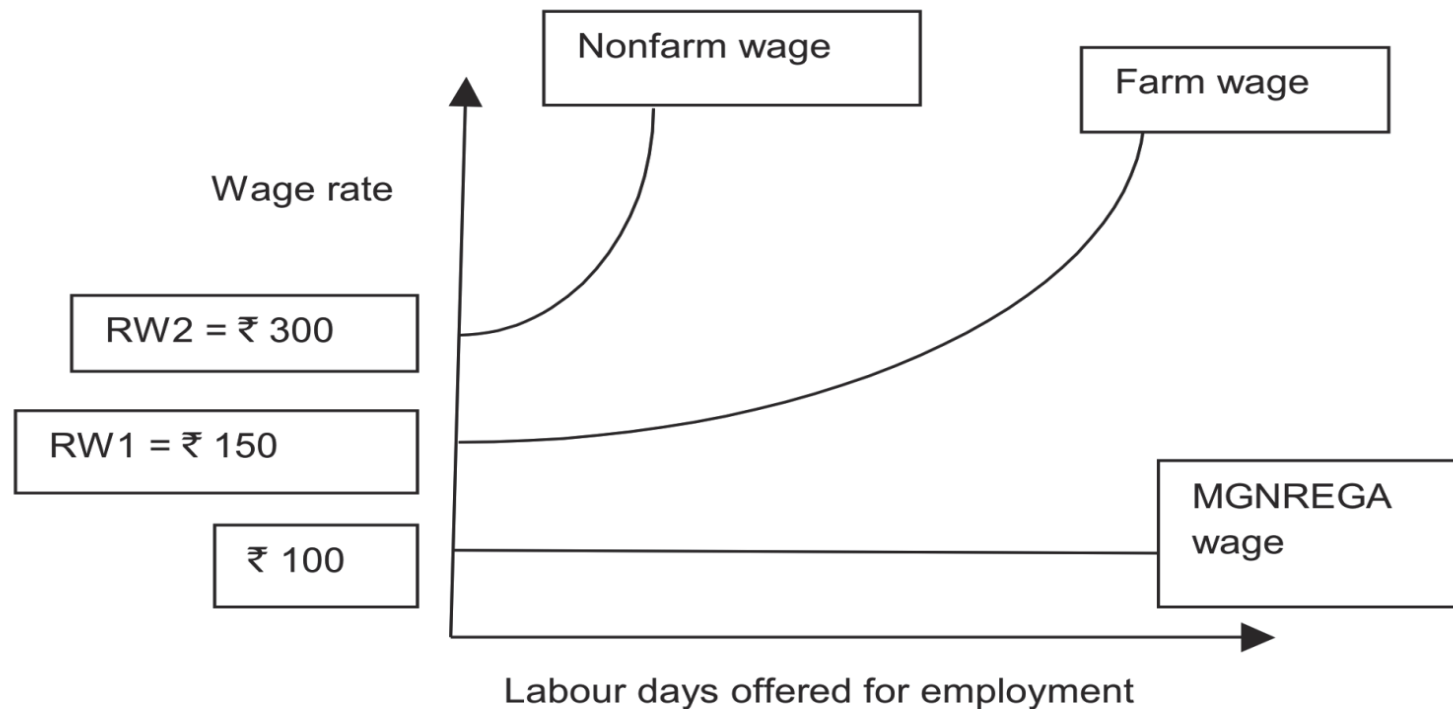


Due to offer of higher wages in the non-agricultural sector compared to agricultural sector, there is a backward bending supply of labour in Rural areas.





# Hike in non-farm wage level in rural areas



The hike in non-farm wage by 100 % compared to farm wage and 200 % compared to MGNREGA attracts substantial youth from the rural areas towards civil works in peri-urban and urban areas

Provision of **food articles in the public distribution system** which renders food availability and security for a month with only **one or two person days of labor**



# Reasons for Backward bending labour supply

- The provision of **food security** through PDS reinforces the **backward bending supply** of labour already manifested due to the **hike in non-farm wages**.
- Due to this many men and women tend to be complacent since their food requirements of the entire month are met with wage income of one or two days.
- In addition, in the rural areas, due to offer of higher wages in the non-agricultural sector, there is a backward bending supply of labour.
- At the first level, the backward bending supply is due to provision of food grains for BPL families.
- At the second level, the backward bending supply of labour operates, as around 60 person days of labour in the family are seldom interested to offer their labour.
- This is the reason also that in MGNREGA, only 6 - 12 per cent of the households offered 100 days of their labour. Thus there are no compelling reasons to disbelieve that the person follows the backward bending supply.



# Social protection

Social protection program	Score given by the group (10 point scale)
Ration card	10
Self Help Groups	08
Yashaswini (Health insurance)	05
Old age / widow / physically challenged – pension	03
Loan from Co-op. Society	02

**But NREGA as social protection did not figured here.**



# Concluding Remarks

- Only 7- 12 % of the households availed 100 days of employment from MNREGA.
- Nevertheless, it is complementing the rural wage incomes of the needy and improved their bargaining power
- The benefits obtained are largely at community level in VDSA villages
- The overall performance of MNREGA in the VDSA villages has been poor due to: The MGNREGA wage rates are not as remunerative as market wages in non-farm activities.
- The use of machinery in MNREGA works is by default
- MGNREGA fails in providing social protection where the leadership of implementing agencies is weak and leaders lack dynamism
- The scarcity of labour in agriculture is largely due to the higher non-farm wage
- The provision of food security through public distribution system reinforces the backward bending supply of labour
- Agriculture needs to be supported by subsidies for farm machinery





*Thank You!*

