

**Pre-Conference Symposium on**  
**Transformation in Rural Economy and Employment Opportunities**  
**in Eastern India: Implications for Inclusive Growth**

17 December 2014

Hotel Royal Retreat, Ranchi, Jharkhand

Technical Session II: **ROUND TABLE DISCUSSION** on  
“Strategies for Inclusive Growth of Rural Eastern India:  
Issues and Perspectives”



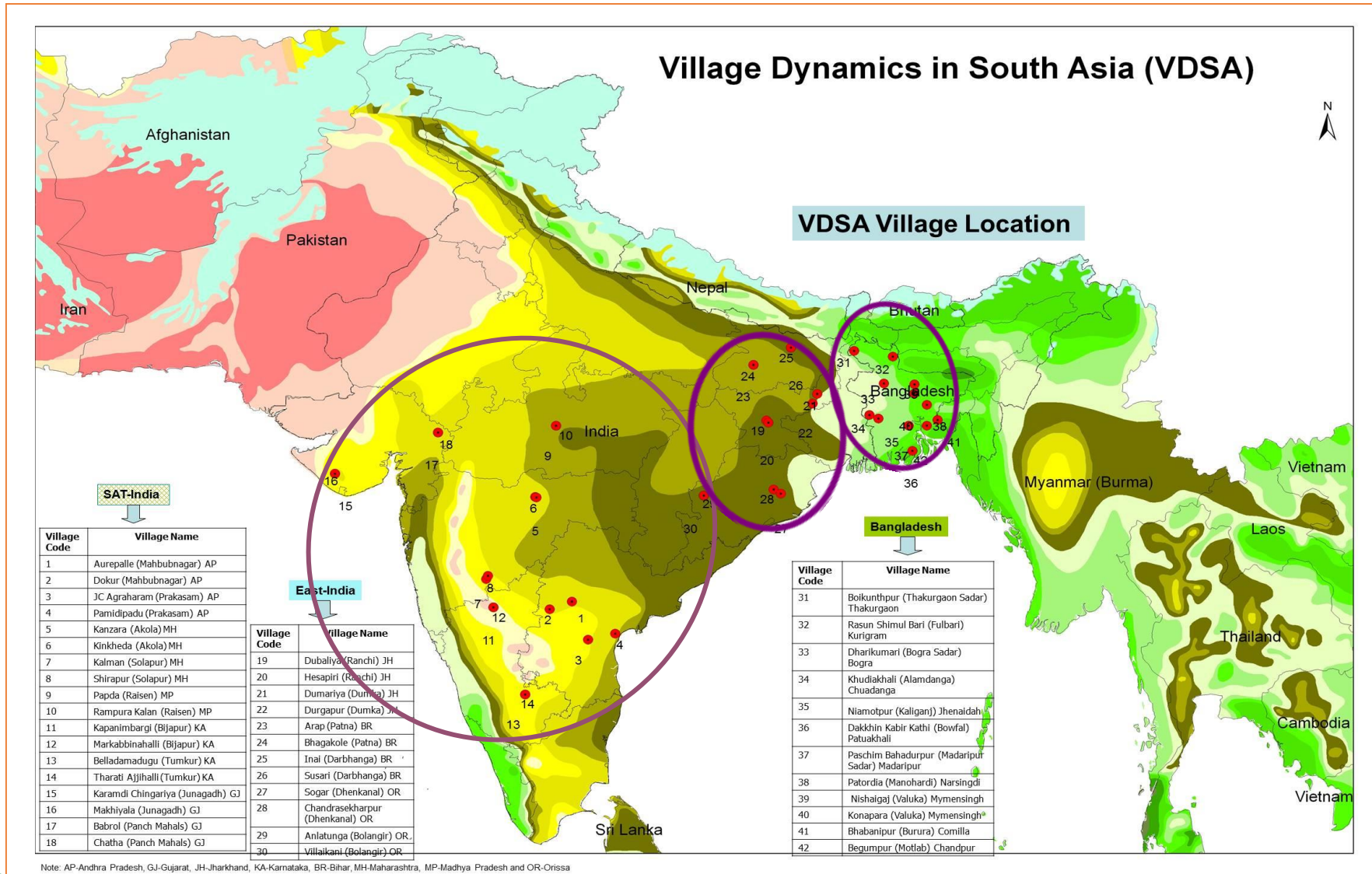
Theme Paper on

*Economic growth and rural transformation in Eastern  
India: Strategies for Inclusive Growth*

Ranjit Kumar, Uttam Deb, Cynthia Bantilan, N Nagaraj and M Bhattarai

# Location of 42 VDS villages: SAT India, East India and Bangladesh

**Total 1848 households**



**East India-  
Bihar:**  
Patna &  
Darbhanga

**Jharkhand:**  
Ranchi &  
Dumka

**Orissa:**  
Bolangir &  
Dhenkanal

## Widely known facts about eastern states

- **Mostly rural (75 to 88%)**
- **Densely populated (highest density), particularly in Bihar**
- **RICH** in natural resources- Water, Soil, Minerals,
- **POOR** in human capital, and produced capital

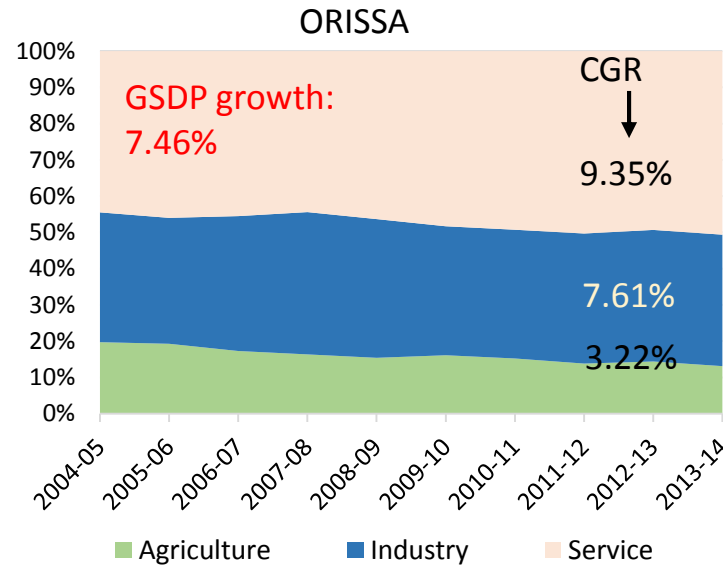
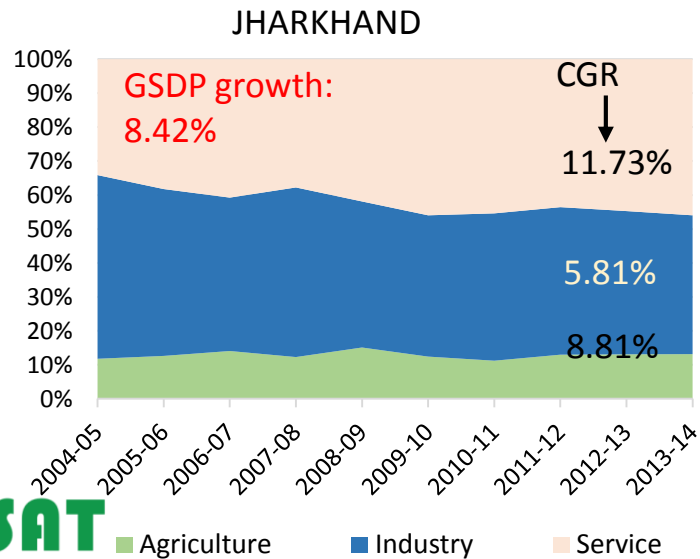
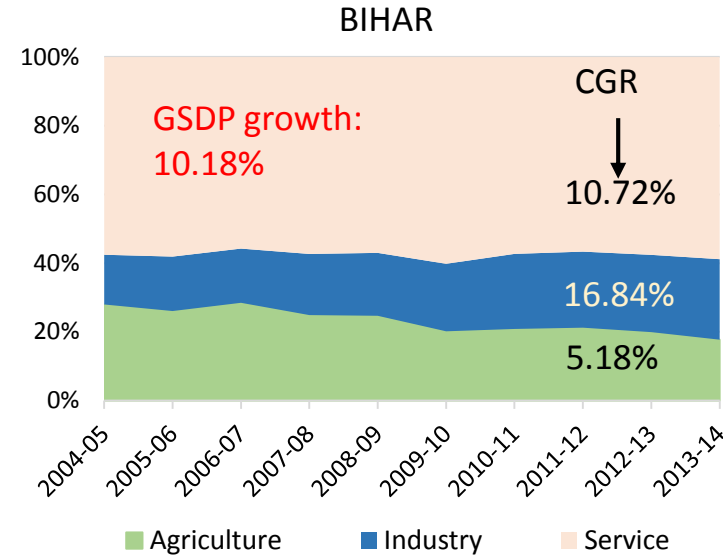
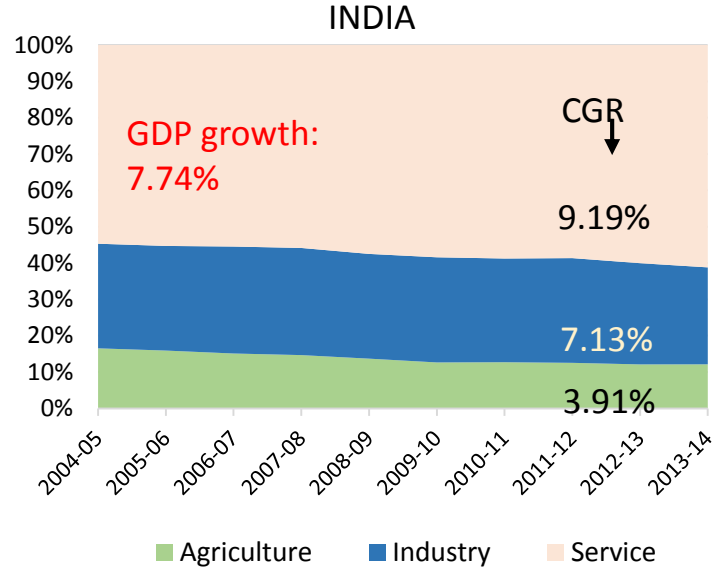
**Have these changed in recent years?**

# Emerging issues?

- What is pace and pattern of rural transformation in eastern India?
- How much important is agriculture sector in rural transformation?
- What is the state of enabling environment to support the rural transformation?

# Pace and pattern of rural transformation in eastern India

# Share of major sectors in GSDP (at 2004-05 prices)



✓ Impressive overall growth in all 3 states

✓ Growth in industry and service are much higher than that in agriculture

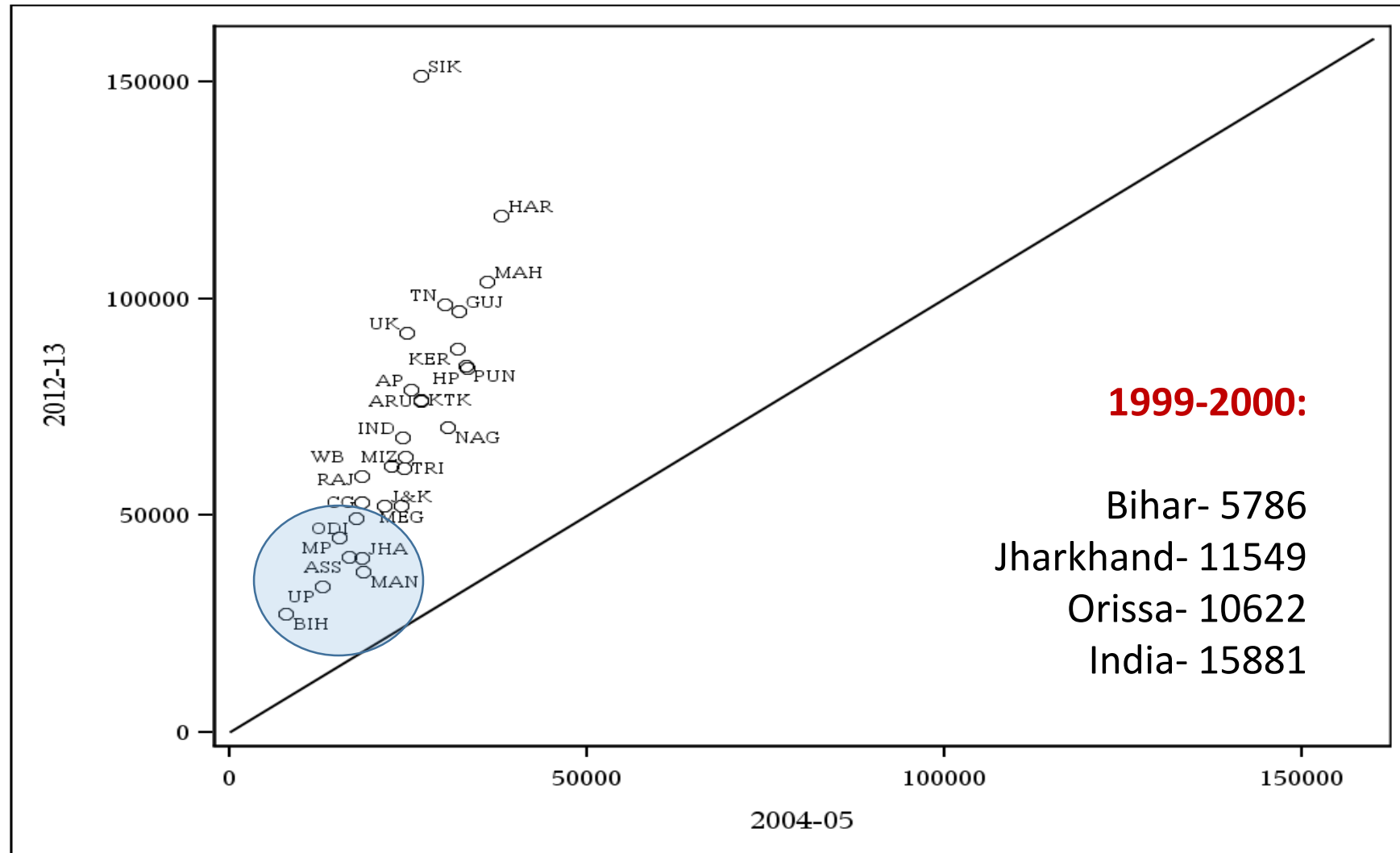
## High growth in Agriculture & allied sector

State	Growth of Value of Output, % (2004- 2010)			
	Agri- culture	Fruits & Vege- tables	Livestock	Fisheries
Bihar	3.5	2.5	<b>4.6</b>	2.2
Jharkhand	<b>5.4</b>	4.6	4.5	<b>17.9</b>
Orissa	3.3	4.1	<b>10.2</b>	4.6
All India	3.2	5.3	4.8	4.5

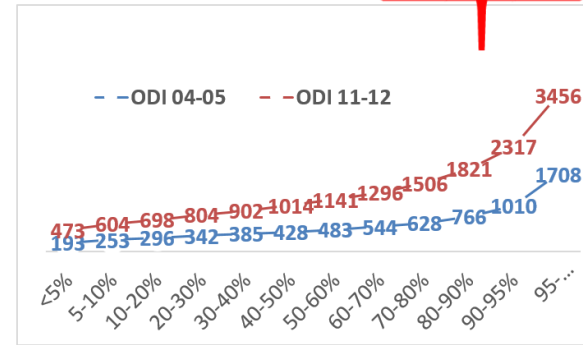
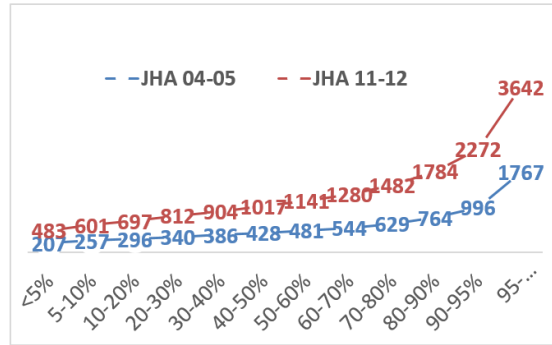
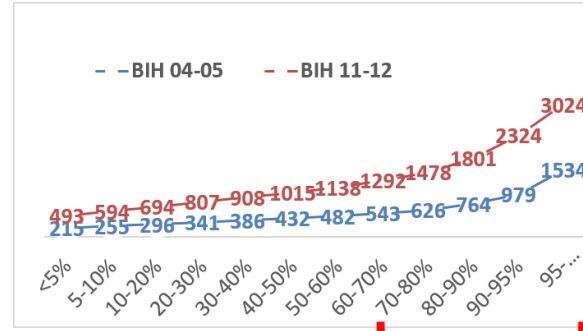
- **Livestock in Bihar & Orissa**
- **Fisheries in Jharkhand**



# Per capita income in major states (Constant price)

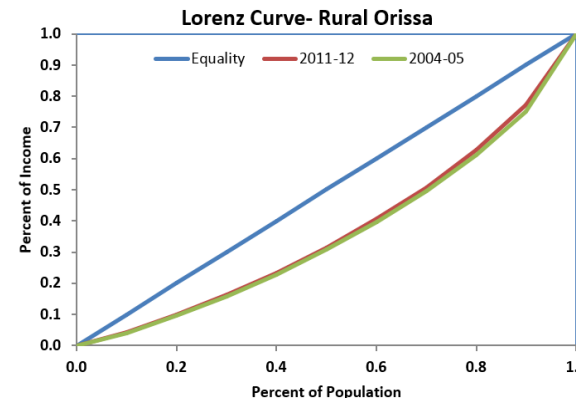
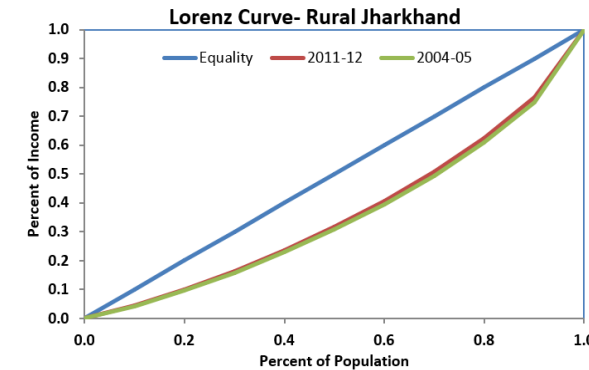
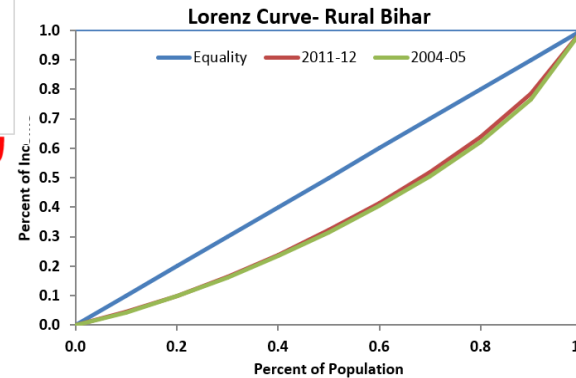


## MPCE by different income categories in rural area



Faster growth in industry & service sector has helped more to higher income group in rural area

## Growth- Inclusive or Exclusive?



Gini coefficient	2004-05	2011-12
Bihar	0.909	0.907
Jharkhand	0.911	0.908
Orissa	0.910	0.908

# Agriculture sector and increasing rural workforce

# Change in number of workers during 2001 and 2011

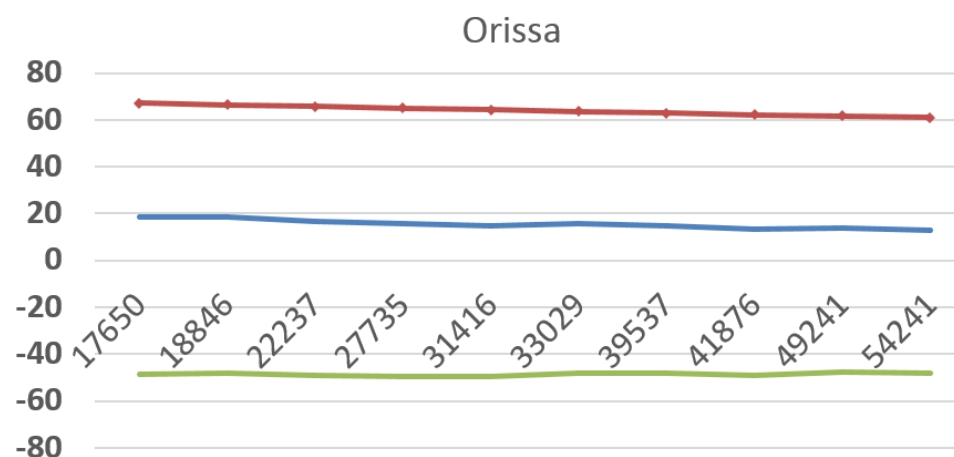
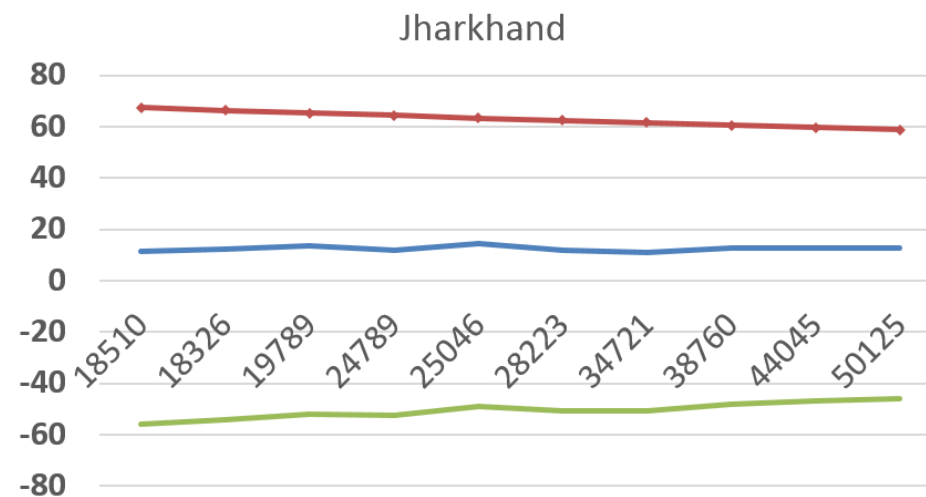
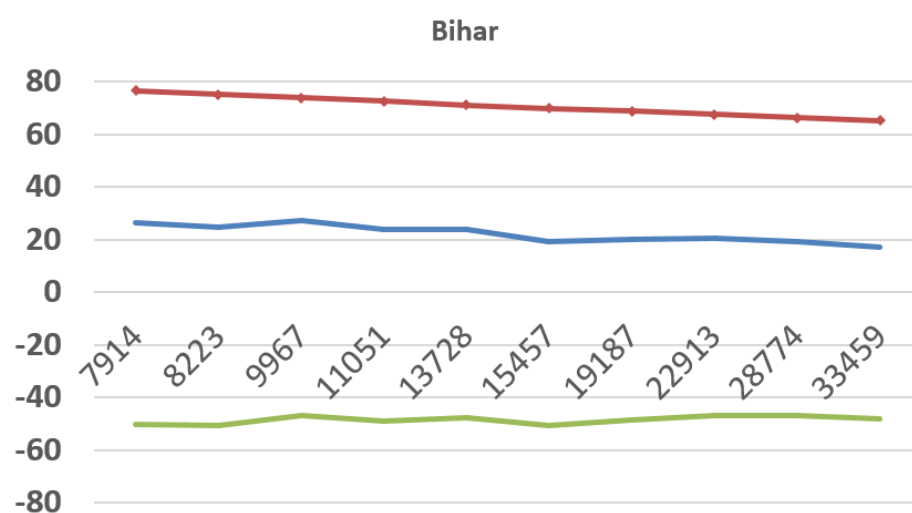
(Number in '000)

State	Change in number of rural non-farm workers		Change in rural agricultural workforce			
			Cultivators		Agricultural Labourers	
	Male	Female	Male	Female	Male	Female
Bihar	1,022.6	965.4	-711.8	-285.6	3,640.8	1,045.5
Jharkhand	498.8	286.3	-134.8	28.7	818.0	710.6
Orissa	694.5	292.8	8.0	-175.5	865.4	831.6
All-India	8,336.6	5,492.8	-3,636.8	-6,114.5	23,224.0	11,339.2



- More than 80% of increase in workforce belonged to rural area
- Addition in agril labours are much higher than non-farm workers
- In Bihar, females are not joining the workforce (outside home) in equal proportion
- Reversal of rural migration in Bihar is evident

# Share of agriculture in economy and employment (2004 to 2013)



**X-axis:** Per capita NSDP in 2004 to 2013 (in Rs at 2004-05 prices)

- Employment share of farm sector, %
- Share of Agriculture in GSDP, %
- Share of agriculture in economy minus share of employment, %

Thousands of workforce getting added in agriculture sector, their productivity is declining → **Under-employment increasing??**

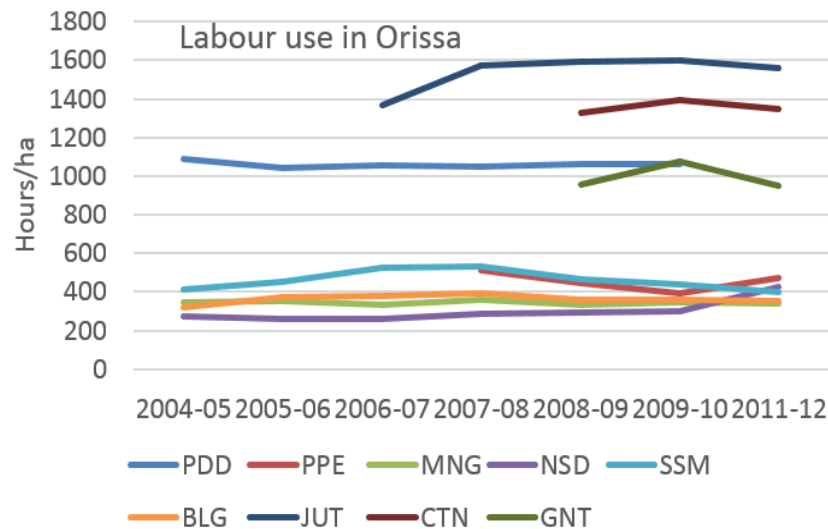
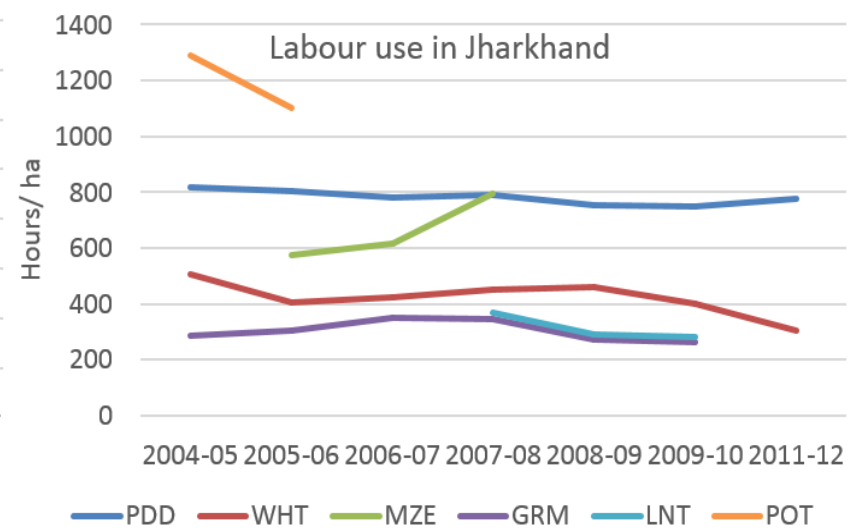
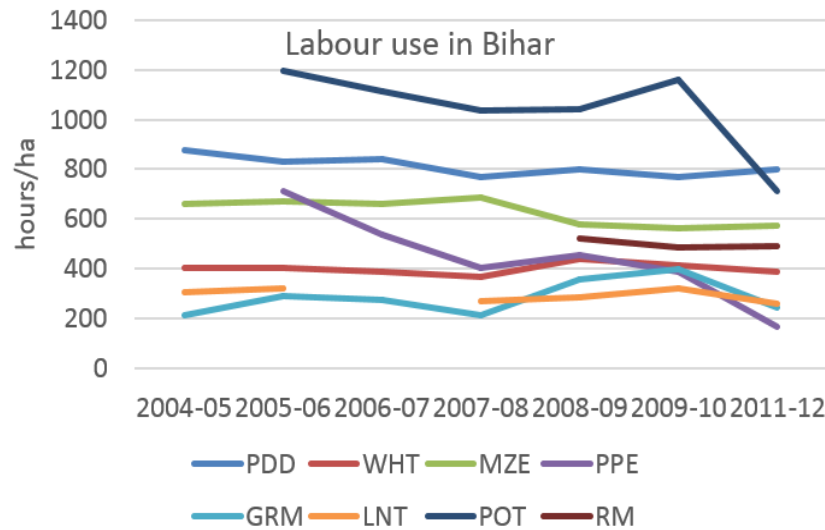
# What is happening to crop prodn? 2001 - 2011

Crop	Area Growth			Yield Growth	
	-ve	0-5%	>5%	-ve	2-5%
<b>Paddy</b>	BH, JH, OR			BH	JH, OR
<b>Wheat</b>		BH, OR	JH	JH	OR
<b>Maize</b>	BH	JH, OR		JH	BH, JH, OR
<b>Gram</b>	BH	OR	JH	JH	BH, OR
<b>R/M</b>	BH	OR	JH	JH	BH, OR
<b>Vegetables</b>			BH, JH, OR	JH, OR	BH, OR

**Gross cropped area:**  
**Bihar (-0.6%),**  
**Jharkhand (-4.0%),**  
**Orissa (-4.9%)**

**More area shifting from traditional crop to high value & labour intensive crops.**

# Dilemma: Declining labour use & rising labour



PDD- Paddy; WHT- Wheat; MZE- Maize; PPE- Pigeon Pea; GRM- Gram; LNT- Lentil; POT- Potato; RM- Rapeseed/Mustard; MNG- Moong; NSD- Nigerseed; SSM- Sesamum; BLG- Blackgram; JUT- Jute; CTN- Cotton; GNT- Groundnut

Source: Directorate of Economics and Statistics, Ministry of Agriculture, Govt. of India

# Enabling environment to support the rural transformation



# Human capital in eastern states: Is it sufficient?

States	#Percentage of rural population (2011)				*Children under 5 years who are underweight (%)
	Illiterate		Literate above primary level		
	Male	Female	Male	Female	2005-06
Bihar	32.0	51.1	31.3	16.7	56
Jharkhand	32.1	49.0	30.2	17.8	57
Orissa	29.0	42.9	38.9	26.9	41
All India	28.4	44.5	36.1	33.9	47

- Very small proportion of rural female going for education beyond primary level.
- High level of child malnutrition

\*National Family Health Survey (NFHS)

## **INFRASTRUCTURE & SUPPORT:** Rank among 20 major states Crucial For Transformation

<b>RANKS</b>	Physical and social infrastructure	Reach of Govt Support Programmes	Presence of Private Initiatives	Overall Rank
Bihar	<b>19</b>	<b>16</b>	<b>18</b>	<b>18</b>
Jharkhand	<b>18</b>	<b>19</b>	<b>20</b>	<b>20</b>
Orissa	<b>20</b>	<b>12</b>	<b>17</b>	<b>19</b>

Source: Chakraborty and Guha (2009)

**Change in MGNREGA jobs during 2008/09 to 2013/14:  
-284% in Bihar; -76% in Jharkhand and -1% in Orissa**

Source: nrega.nic.in

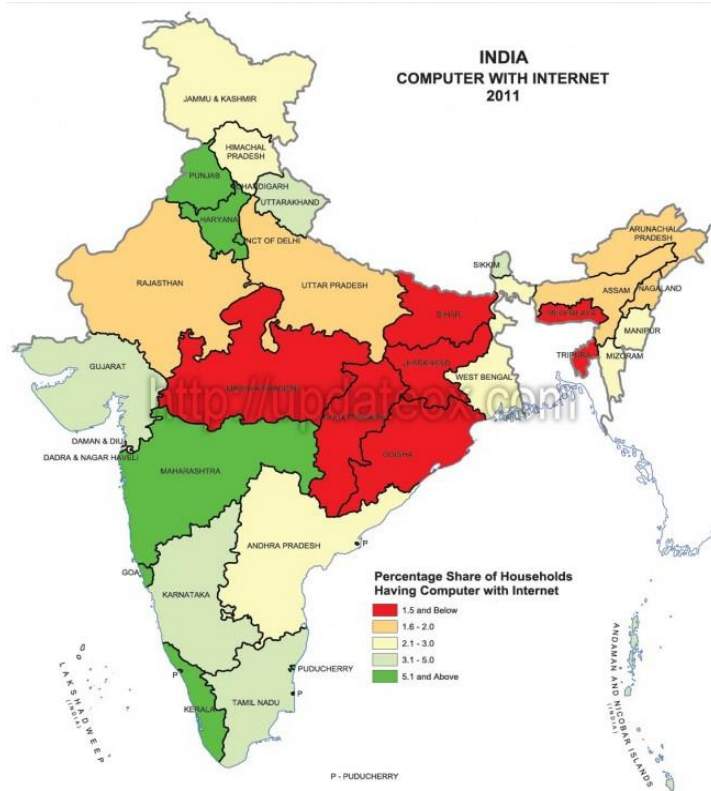
## Stocks of critical resources in eastern states (Share in %)

State	NSA of India (2010-11)	Length of surface road (2011)	ECA, (2010)	CDA, (2012)	No. of factories, (2011)
Bihar	3.71%	2.44%	0.31%	2.33%	1.49%
Jharkhand	0.77%	0.70%	0.06%	0.78%	1.17%
Orissa	3.31%	2.51%	0.14%	1.58%	1.23%
India	100%	100%	100%	100%	100%

**NSA- Net sown area; ECA- Electricity consumption in agriculture;  
CDA- Credit disbursement in agriculture**

Source: Census, 2011; Agricultural Statistics at a Glance, 2013; Basic Road Statistics of India, Govt. of India (2012); Reserve Bank of India; Ministry of Labour & Employment, Govt. of India.

# Spread of computer and internet connectivity in India, 2011



**Bihar:** less than **1%** HHLD have internet connection

**Jharkhand:** **1.5%** HHLD have internet connection

**Orissa:** **1.5%** HHLD have internet connection

**National average- 3.1%**

# Evidences from VDSA Villages

## Changes in Operation holding (Acres): 2012 vs 2010

State	Landless	Small	Medium	Large
Bihar	+0.15	+0.18	-0.27	-1.21
Jharkhand	+0.10	+0.37	+0.19	-1.48
Odisha	+1.04	+0.05	-0.11	-0.73

- Operational holding increasing in Landless and Small category
- Farm mechanisation not attractive enough for large farmers
- Land lease market is expanding

# WHO IS COMING & WHO IS GOING OUT from FARMING

## Bihar: 2010 Vs 2012

Occupation	100 % (2010)	Farming	Farm labor	Salaried job	Non-farm labor	Other NF*
Farming	109	90.8	0	2.8	0.9	4.6
Farm labor	10	0	70	0	30	0
Salaried job	68	4.4	0	83.8	2.9	2.9
Non-farm labor	80	1.3	2.5	6.3	80	3.8
Other NF	10	20	0	30	10	30

## Jharkhand: 2010 Vs 2012

Occupation	100 % (2010)	Farming	Farm labor	Business	Non-farm labor
Farming	152	79.6	1.3	0	15.8
Farm labor	12	8.3	33.3	0	58.3
Business	7	14.3	0	71.4	0
Non-farm labor	51	5.9	0	2	88.2



## Odisha:2010 Vs 2012

Occupation	100 % (2010)	Farming	Farm labor	Business	Salaried job	Non-farm labor
Farming	<b>120</b>	81.7	5.8	1.7	1.7	5
Farm labor	<b>48</b>	14.6	54.2	10.4	2.1	12.5
Business	<b>17</b>	5.9	0	88.2	0	5.9
Salaried job	<b>34</b>	11.8	0	5.9	76.5	2.9
Non-farm labor	<b>34</b>	5.9	14.7	0	5.9	73.5

# Government sponsored programmes: **SPREAD**

Sr No.	Government Development Program	2010			2012		
		Bihar	Jharkhand	Orissa	Bihar	Jharkhand	Orissa
I.	<b>Crop/ Livestock Improvement</b>						
1	Kisan Credit Card Scheme(KCC)	***	**	*			*
2	National Food Security Mission (NFSM)	*	*	*		*	****
3	National Horticulture Mission	*				*	***
4	Rashtriya Krishi Vikash Yojana (RKVY)	*			*		****
5	Self-help group (SHGs)/ Farmers club	*	*	***			
6	Subsidy on farm well/ Farm ponds			*		*	***
7	Subsidy on purchase of agril. implements/machinery	*			***		
II.	<b>Social Protection</b>						
10	Anganwadi	****	****	****	**	***	****
11	Drought/Flood relief	**	*	*			*
12	Mid Day Meal Scheme	**	***	****	****	****	**
13	National Rural Emp. Guarantee Scheme (NREGS)	**	***	****		***	*
14	Old age pension	***	***	***	***	***	*
15	Pension for physically handicapped	*	*	***			****
16	Public Distribution System (PDS)	****	****	****	****	****	****

Note: No. of \* indicate the number of villages, where beneficiary households are reported

# Key issues to catalyse rural transformation

- **Agriculture-led growth:**
  - Productivity improvements- R&D efforts and capacity building of farmers.
  - Management of water economy
  - Market infrastructure
  - Promotion of agro-based industries in rural areas
  - Climate change preparedness
- **Building up rural infrastructure**, with special focus on **energy, roads and financial services**
- **Improving social infrastructure**, primary health care facilities and schooling in rural areas and, finally
- Strengthening wide scale **usage of ICTs**.

**Thank you for your attention!**



*ICRISAT is a member of the CGIAR Consortium*



**International Crops Research Institute  
for the Semi-Arid Tropics**

