# Part-time farming on the rise in Eastern India

Parming in the eastern Indian states of Bihar, Jharkhand and Odisha is at an interesting crossroads. Part-time farming has increased among rural households in these states with traditional farmers slowly moving away from agriculture and people from other occupations, especially those depending on salaried jobs in small shops and businesses, taking up farming.



Panelists at the VDSA symposium in Ranchi.

These findings which emerged from the Village Dynamics in South Asia (VDSA) project were discussed at a symposium on 'Transformation in Rural Economy and Employment Opportunities in Eastern India'.

## GDP up, share of agricultural sector on the decline

The three states under study have different patterns of rural transformation. During the past decade, the share of agriculture sector as a proportion of the State Gross Domestic Product (SGDP) has been continuously declining. This is despite the SGDP growing by 7.5 to 10% annually (faster than the national average). The per capita income has quadrupled during 2004 to 2012, but is less when compared to other states of the country.

Prof Abhijit Sen, former member of the Planning Commission, who chaired the session, said it was unfortunate that Jharkhand could not make much progress because of an unstable government and poor governance. He said that though the other two states – Bihar and Odisha – are progressing, they still are lagging when compared to other states.

#### Dwindling farmers, increasing labor force

The number of farmers in rural areas is declining at a rapid pace while opportunities for non-farm employment are growing. However agriculture still remains the basic source of livelihood. Between 2001 and 2011, in Bihar alone, more than 4.6 million agricultural laborers and 2 million non-farm workers joined the already existing labor force. In the other two states, the majority of the additional workforce were also farm laborers.

## Part-time farming on the rise

In these three states, traditional farmers are giving up agriculture, while people from other occupations are taking up farming. During 2010 to 2012, about

10% farmers left farming in Bihar, while 5% households depending on salaried jobs in small shops/businesses started farming. In the villages of Jharkhand and Odisha states, attrition of farmers was more (about 20%), however about 10% of farm labor adopted farming as a primary occupation on leased land. Thus, part-time farming has increased among rural households in eastern India.

### **Emerging vibrant land lease market**

In the three states, the operational holdings of the landless and small households are increasing in size, while that of large farmers are declining. While rich farmers are shying away from agriculture, the poor are taking advantage of the lease market. However, due to stringent measures taken by financial institutions in eastern India, it is becoming increasingly difficult for poor farmers to avail credit to invest in leased land. Therefore, the creation of an enabling environment in all the service sectors was suggested to support poor and landless farmers.

#### Slow growth in agriculture

The traditional crop sector in eastern states is growing slower than the other high-value sectors like

Education and Occupational Pattern in Eastern India: 2010-2012.	
<b>Education level</b>	Occupational Pattern
No Formal Schooling	Farming (44%), Non-farm labor (27%), Farm Labor (17%)
Primary Schooling	Farming (50%), Non-farm labor (25%), Farm labor (10%)
Secondary Schooling	Farming (48%), Non-farm labor (26%), Service (8%)
SSC or Intermediate Passed	Farming (39%), Service (23%), Nonfarm labor (17%)
Graduate and Above	Service (52%), Farming (29%), Business(8%)

horticultural crops, livestock products and fisheries. During 2004-2010, in Jharkhand the growth in value of output from fisheries rose to about 18% annually, while livestock has grown by 10% in Odisha and by 5% in Bihar. The traditional crop sector is experiencing muted or negative yield growth particularly in Jharkhand. More surprising, the gross cropped area has declined by 4-5% annually in Jharkhand and Odisha and to some extent in Bihar.

## Illiteracy decelerates progress

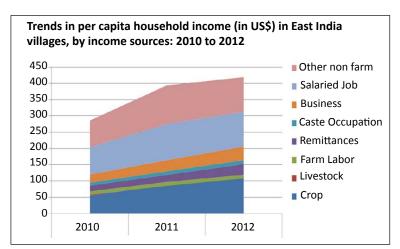
In the VDSA villages in eastern India, amongst the population that had no formal schooling, 44% took up farming, 27% were in non-farm labor activities and 17% in farm labor activities. With a high illiteracy level of 50% among the female population and another 30% literate only up to primary level, it is a challenge to train them for any livelihood activities to facilitate their upward mobility.

#### Poor infrastructure hinders rural transformation

The three states together constitute about 15% of the country's population and have 8% of the total cultivated area of the country. However, availability of basic and social infrastructure is dismal. Of the total national figures these three states put together have 5% of paved roads, only 0.5% of electricity consumption for agriculture and less than 5% of institutional credit is disbursed to the agriculture sector. In Bihar, the share of formal credit is high in those villages which are near to big cities.

## Rising rural income

Per capita real income of the households has increased from both farm and non-farm sources over





Dr Ranjit Kumar, Principal Scientist, ICRISAT, presenting the theme paper.

the last three years in the study villages. Per capita household income in the villages of Bihar, Jharkhand and Odisha has increased to about US\$ 450, US\$ 400 and US\$ 360, respectively in 2012 from about US\$ 350, US\$ 230 and US\$ 240, respectively in the year 2010.

## Technology adoption in agriculture

Use of tractors for ploughing is rising in eastern India, though with varying pace. In Bihar, almost all fields in the villages of Patna district are ploughed using tractor, while in Jharkhand and Odisha bullock-drawn ploughs are more common. A few large farmers have also invested in combine harvesters in Patna district and are doing brisk business by hiring out the machines. Adoption of hybrid paddy is widely seen in all the villages of eastern India.

Lack of awareness about government programs and rampant corruption in accessing schemes such as subsidy on digging wells, irrigation equipment,

> piggery, and Kisan (Farmer) Credit Card are the major bottlenecks in adoption of improved technologies in eastern India.

The above findings emerging out of the VDSA initiative in eastern India were deliberated upon by more than 100 professionals from across the country. This was at a symposium held recently by ICRISAT at Ranchi, Jharkhand, India, in collaboration with Institute for Human Development.

The VDSA project is supported by the Bill & Melinda Gates Foundation.