



Fortnightly column
Village Dynamics Insights

Key changes in rural dynamics identified in Karnataka, India

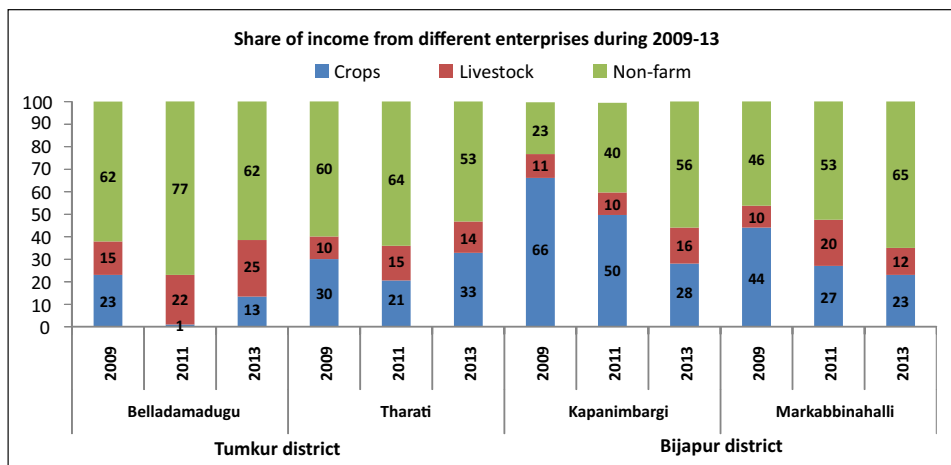
Farmers in the state of Karnataka are increasingly devoting areas for cultivating high-value food and non-food crops as a result of market demand, supportive government policies and groundwater availability. Evidence of this shift is shown in a recent analysis of panel data from surveys of 160 households across four villages in two districts of Karnataka in 2000 and 2013.

As a result of irrigation through groundwater extraction, a groundnut-based farming system with dairying has risen to prominence in Belladamadugu, floriculture in Tharati, grapes in Kapanimbargi, and pigeonpea and cotton in Markabbinahalli.

Policy driven

“The policy of agricultural credit for drilling irrigation wells and free electricity to pump groundwater for agriculture has both enabled a boom in groundwater extraction, causing a rapid transformation of Indian agriculture from subsistence food to commercial crops,” said Dr Nagaraj, former Principal Scientist (Economics), Markets, Institutions and Policies, ICRISAT. “Similarly, some of the programs such as National Horticulture Mission, watershed development, Mahatma Gandhi National Rural Employment Guarantee Act have had a profound impact on changes in cropping patterns and agricultural diversification.”

Income Dynamics



Enterprise changes

Other changes as seen through VDSA surveys of the four villages was a 10-54% drop in the area of food crops, such as postrainy (*rabi*) sorghum and finger millet, paving the way for a 35-85% rise in non-food crops such as floricultural and cotton as well as horticultural crops.

There has also been increased mechanization and shift from draught to milk animals, with a substantial rise in small ruminants. For example, milk production in Belladamadugu grew from 180 liters in 2000 to 500 liters in 2010.

Income growth

These shifts have contributed to increased incomes in the villages, particularly those with good access to markets. The horticultural crops grown in Kapanimbargi and Tharati generated an 80-90% increase in incomes compared to agricultural crops, and also offered a 60-90% boost in farm employment.

The VDSA surveys also reveal a substantial increase in non-farm income in the four villages, which grew from 40 to 60% from 2009-2013. As a result there has been a steep fall in the proportion of men working in agriculture and 10-20% growth in females taking up these roles.

Dr Nagaraj said the heavy use of groundwater in Karnataka has resulted in over-exploitation, leading to low yield of water from irrigation wells. Hence farmers are drilling deep bore wells, adopting drip irrigation and sprinkler systems, investing in storage structures, shifting cropping patterns, and also trading water.

References

Pattern of agricultural transformations in VDSA villages of Karnataka

Policy induced transformation in dryland agriculture: The case of Tharati village in Karnataka. ■

Area coverage under Food and Non-food crops (ha).			
Category	2000	2013	% change
<i>Belladamadugu</i>			
Food	45	41	-10
Non-Food	23	43	85
<i>Tharati</i>			
Food	14	11	-24
Non-Food	10	16	59
<i>Kapanimbargi</i>			
Food	48	41	-16
Non-Food	46	62	35
<i>Markabbinahalli</i>			
Food	50	23	-54
Non-Food	45	74	65