A REVIEW

Asian Sciences (June, 2010) Vol. 5 Issue 1 : 67-68

Three programs that could effectively reduce poverty and malnutrition

V.B. TAK* AND A.V. TAK

Marathwada Agricultural University, PARBHANI (M.S.) INDIA

Key words : Poverty, Malnutrition, Institutional changes, Policy change

Climate change, although a global phenomenon, will has serious implications for the poor in India, making them more vulnerable to food insecurity and hunger, unless adequate programs are in place to protect them. Climate change, induced by global warming, will affect agriculture sector in the Indian sub-continent in many ways.

While the direct impact on agriculture will be felt through the changes in production systems, the indirect impact of these changes will be fell by consumers through factors mediated by income – loss and price increases. Hence, programs and plans have to be revised by giving due credit to adaptation and mitigation and using innovative cropping strategies.

The current programs need to be modified to meet the challenges that climate change will bring about, Achieving food security for all in the event of climate change will require redesigning of policies and programs from both the production and consumption perspectives.

On the consumption side, program that are intended to increase the accessibility of food and utilization of food needs to be redesigned to accommodate the likely effects of climate change. On the production side, efforts are needed to improve the technological, institutional and policy innovations.

Largest safety net program :

In improving the food accessibility through increasing purchasing power and food utilization, the current programs, such as the public distribution system (PDS) reinforced by the proposed National Food Security Act (NFSA), National Rural Employment Guarantee (NREG) Scheme, mandated by NREG Act, and the integrated child Development Services (ICDS), one of the oldest and largest safety net programs in the world.

Implemented well jointly, these three programs could effectively reduce poverty and malnutrition in the next 15 - 20 years. Yet, the crucial policy challenge in the next few years is how we could organize these safety net schemes to contribute the long term adoption and mitigation in the climate change agenda while redacting poverty. The National Food Security Act (NFSA) promises to ensure 20 kg. of food grain to a family living below the poverty line at the price of Rs. 3 per kg a channel through which production surpluses could be diverted to meet the hunger challenges.

This could effectively help to bring more efficiency to the public distribution of food. Yet the challenges remain in terms of increased consumptions of proteins and micronutrients, high level leakages of quality food grains to local markets, through organized intermediate purchases.

Long-standing intervention :

The National Rural Employment Guarantee Scheme (NREGS) provides 100 days of guaranteed employment to those who are willing to work. Implemented for the past four years in various states, it has shown mixed results of reaching out to the poor, corresponding to the nature of governance in the local areas. ICDS, a long-standing intervention also has the potential to reduce the high level child malnutrition prevalent in many states, continues to struggle in providing a better delivery on the governance grounds.

The Indian arid eco-system which is unique to several respects provides ample opportunities to establish agro-based and allied cottage industries. The National Horticulture Mission which aims at providing a holistic growth in rural sector can certainly address the dual challenge of climate change and poverty reduction. Empowering the poor families is the best approach one could prudently think of at this moment to mitigate the ill – effects of the climate change. It could be achieved through the demand and supply side solutions.

The phenomenon of climate change brings both the challenge and opportunity for identifying the precise changes that will be needed in various agro ecological zones of India.

The crop-planning exercise that was conducted fifteen years ago needs to be revised in the light of evidences on the reductions in the yield of crops due to climate change. There is a need to reorganize the production priorities for the agro-ecological zones in the light of climate change. Identifying the new set of production activities and delivering the appropriate

* Author for correspondence

Table 1 : Livestock Population in India (Million Numbers)

Species	1951	1956	1961	1966	1972	1977	1982	1987	1992	1997	2003
Cattle	155.3	158.7	175.6	176.2	178.3	180.0	192.5	199.7	204.6	198.8	185.2
Adult female cattle	54.4	47.3	51.0	51.8	53.4	54.6	59.2	62.1	64.4	63.6	64.5
Buffalo	43.4	44.9	51.2	53.0	57.4	62.0	69.8	76.0	84.2	89.9	97.9
Adult female buffalo	21.0	21.7	24.3	25.4	28.6	31.3	32.5	39.1	43.8	46.8	51.0
Total bovins	198.7	203.6	226.8	229.2	235.7	242.0	262.4	275.8	289.0	289.0	283.4
Sheep	39.1	39.3	40.2	42.4	40.0	41.0	48.8	45.7	50.8	57.5	61.5
Goats	47.2	55.4	60.9	64.6	67.5	75.6	95.3	110.2	115.3	122.7	124.4
Horses and ponies	1.5	1.5	1.3	1.1	0.9	0.9	0.9	0.8	0.8	0.8	0.8
Camels	0.6	0.8	0.9	1.0	1.1	1.1	1.1	1.0	1.0	0.9	0.6
Pigs	4.4	4.9	5.2	5.0	6.9	7.6	10.1	10.6	12.8	13.3	13.5
Mules	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
Donkeys	1.3	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	0.9	0.6
Total livestock	292.8	306.6	335.4	344.1	353.6	369.0	419.6	445.3	470.9	485.4	485.0
Poultry	73.5	94.8	114.2	115.4	138.5	159.2	207.7	275.3	307.1	347.6	489.0
Dogs	NC	NC	NC	NC	NC	NC	18.5	18.0	21.8	25.6	29.3

NC : Not Collected
Note : Total Bovins include Yaks and Mithans
Source : Department of Animal Husbandry and Dairying and Fisheries, New Delhi.

technologies to farmers will remain a challenge for some time to come. The effective use of bio-technological advances, nanotechnology, and precision technology to optimize the use of soil, water and other inputs with a view of enhancing to productivity will be a key for addressing a major challenge.

Institutional changes :

While challenges in need for new technologies could be organized by research systems, institutional innovations are needed for effective the utilization of these technologies. Efficiency in input delivery, such as fertilizers and seeds of improved varieties, where wasteful subsidies could be reduced to improve the production and distribution efficiency will save resources of investing in climate change adoption and mitigation efforts. In meeting the climate change through agricultural research, increasing the institutional efficiency and effectiveness of the research system needs serious attention of the policy makers.

Setting priorities for crop, livestock and fisheries research that takes into account the productivity changes and improving the quality and quantity of irrigation systems through appropriate institutional mechanisms for supply of electric power will help to reduce climatic change effects on agricultural systems. Revival of the moribund extension system to include the messages of the climate change and the benefits of adoption and making use of the mitigation programs is a priority.

Policy changes :

Policy initiatives that will bring the maximum befit to the poor, who are affected by the climate change, need to combine the production policies with the above mentioned social safety-nets implemented in rural areas. Production incentives directed towards dry-land crops that consume less water must be given top priority. If the farmers and the farm communities are properly informed of the need to adapt themselves for mitigating the ills of climate change, policy initiatives can be easily pushed through.

REFERENCES

Poverty in Guatemala (World Bank Country Study) by World Bank.

Attaining the millennium Development Goals in India : Reducing Infant Mortality, Child Malnutrition, Gender Disparities and Hunger - Poverty and Increasing School Enrollment and Completion by Anil Deolalikar

Seeds of Contention : World Hunger and the Global Controversy Over GM Crops (International Food Policy Research Institute) by Per Pinstrup – Andersen and Ebbe Schioler.

Combating Malnutrition : Time to Act (Health, nutrition and Population Series) by S. Gillespie, M. McLachlan, and R. Shrimpton.

Accepted : March, 2010