

# India any income fluctuation due to crop failure

Nutrition



**ASSIGN  
BUSTER**

India is the second most populated country in the world, with nearly a fifth of the world's population and is projected to be the world's most populous country by 2022, surpassing the population of China.

So food production to feed this huge population is a challenging task. About 56 percent of the arable lands in India completely rely on rain (GOI, 2010), having chances of crop failure by drought and flood, in these circumstances livestock serve as buffer stock as well as an effective hedge against income fluctuation, for an average rural farmer (Fatchamps et al. 1998).

Livestock are considered as mobile bank, with calves as the interest, acts as shock absorber for any income fluctuation due to crop failure to the rural poor farmers. Livestock sector is an important subsector of the agriculture of Indian economy. It forms an important livelihood activity for most of the farmers, supporting agriculture in the form of critical inputs, contributing to the health and nutrition of the household, supplementing incomes, offering employment opportunities, and finally being a dependable "bank on hooves" in times of need.

It acts as a supplementary and complementary enterprise (DAHDF, 2016-17). They have been aptly called as one of the best insurance against vagaries of nature like flood, famine, drought and natural calamities. With 512 million livestock heads, India accounts for largest livestock population in the world. It has 56.

7 % of world's buffaloes, 12. 5% cattle, 20. 4% small ruminants, 2. 4% camel, 1. 4% equine, 1.

5% pig & 3.1% poultry (DAHD, 2014). Livestock sector contributes nearly 25.6% of the value of output in agriculture, fishery and forestry sector. India ranks 1st in buffalo population and milk production, 2nd in cattle and goat population, 3rd in sheep, 5th in chicken and duck population. Despite being one of the leading countries in terms of livestock population and production sector the milk productivity of native breeds is very low (2.

54 kg milk/day) when compared with exotic breeds (7.15 kg/day) (BAHS, 2015). India's livestock productivity is 20-60 per cent lower than the global average (AHD Report, 2012-17). The growth in the milk production remained stagnant for more than two decades after independence (around 1% per annum) whereas the growth of population was closer to 2% (BAHS, 2014).

Day by day the gap between demand and production is widening. Substantial increment in milk production was achieved with the launch of a nationwide dairy development programme (Operation Flood) in the year 1970 (Gautam et al., 2010). It has been estimated that demand of milk will rise to 156 million tons by 2020 (Parthasarathy et al., 2004). Estimates by the Planning Commission of India indicate still higher demand increase i. e.

182 million tons by the year 2021-22. Coming to availability, per capita availability of eggs in India has also increased from just 5 eggs per annum in 1950-51 to 58 eggs per annum in 2012-13 which is still far below the ICMR recommendation of 365 eggs/annum. The availability of meat in India is only about 15g/person/day against the ICMR recommendation of 30g/person/day (Islam et al.

, 2016) Milk and meat production status of Indian livestock is 20-60 percent lesser than the world average (GOI, 2012). Achieving food security from livestock by increasing the number of livestock is a constraint because of scarcity of feed-fodder and pressure on natural resources like land, water, air and biodiversity etc. By overcoming these traditional mindset with some innovative approaches like farm mechanization e. g. precision animal husbandry; adoption of improved technologies and scientific interventions like adoption of AI practices in livestock; changing farming style from cow farming, goat farming to integrated or diversified farming, to defeat the problem of less land poly house farming practices etc. are some of the solutions.

In this aspect extension programmes and provision of need based trainings have the immense potential to make people aware of those innovations and to practice the same for better benefits from the same sort of land. Because an extension agent can act as a liaison between research centers where technologies are being developed and the intended users the farmers who are supposed to use the technologies and get benefit out of it. The term 'extension' mean 'advisory and other services' that help rural families to make the best possible use of the productive resources at their disposal (Katz 2002). Mattee, 1994 pointed out that "it is truism to state that the effective transmission of research findings to farmers is essential if research efforts are to contribute to agricultural progress". Livestock extension services to the farmers have the potential to play the key role in improving livestock productivity and making the livestock sector competitive in the liberalized economy.

Livestock extension service includes transfer of technology and also strengthening of locally relevant innovation systems; advisory service; the provision of access to a range of services that include input and output markets; and the strengthening and support of farmers' organizations (Chander et al. 2010)