

Community Based Integrated Livelihood Approach for Sustainable Development

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Abstract

India is a country of diverse cultures due to the influence of geography, climate and biodiversity. The current state of the developing world is the result of this process of evolution and experimentation. As Indian agriculture was later considered to be the backbone of the Indian economy, the contribution of agribusinesses to India's national income increased even more. Science and Technology has always being the tool for advance agricultural practices and India is way ahead in applying the same to rise as a largest economy. FAO recognized the contribution of India as a third largest economy in the world after US and China however also concern about the food shortage and malnutrition. The increasing feminization of agriculture is mainly related to the migration of men from rural to urban areas and other domestic issues. To address the issues, a model is proposed for rural India for integrated agriculture based approach with involvement of every household from a small village to cater the need of food and livelihood thereby also progressing in further development for a better life.

Background

India is a diverse country in culture and cronies due to the influence of geography, climate and biodiversity. Being a diverse ethos has its own challenges when it comes to workspaces and consensus when it comes to social or shared work. For generations, communities have taken a supportive approach to overcoming barriers to livelihoods. The present state of the developing world is the result of such evolution and experimentation. Governments play an important role in helping citizens, mostly through needs-based policies, but sometimes they disrupt the system and fail to reach those in need. India is an agriculture-based country, where more than half population is depending on agriculture thereby structuring the main source of income. Since India's agriculture is later said to be the backbone of the Indian economy, the participation of agricultural companies in India's national income is even more so. Throughout history, advances in science and technology have had a major impact on the agricultural industry, and India is well ahead of its time in applying science and technology to agriculture, making it one of the largest economies. According to the United Nations Food and Agricultural Organization (FAO); India is the seventh largest country in the world for producing milk, impulse and jute, and the second largest manufacturer of rice, wheat, sugarcane, groundnut, vegetables, fruits and cotton. It is also one of the leading manufacturers of spices, fish, birds, animal livestock and plantation crops. India is the third largest economy in the world after the United States and China. Agriculture with trade unions is the source of the largest living in India. 70% of rural population is still dependent on agriculture for agriculture and 82% of farmers are small and trivial [1]. India still has many growing problems. As India's economy diversified and grew, agriculture's contribution to GDP steadily declined. India, which has achieved food shortages in production, still accounts for a quarter of global hunger and is home to more than 190 million malnourished people. The poverty rate now stands at nearly 30 percent. According to the Global Nutrition Report (2016), India is ranked 114 out of 132 countries for under-five stunting, 120 out of 130 for under-five obesity, and 170 out of 185 countries for the prevalence of anemia. Anemia still affects 50% of women and 60% of children, including pregnant women [2]. FAO report looks at the social aspects of agriculture showing changing trends. The increasing feminization of agriculture is mainly related to the migration of men from rural to urban areas. Women perform important tasks in both agricultural and non-agricultural fields, and although participation in this sector is increasing, their work is viewed

as an extension of domestic work, adding to the double burden on the household [3]. India also needs to improve management of agricultural practices in several ways. While improved agricultural performance is weakly associated with improved nutrition, the agricultural sector can improve nutrition in several ways, including increasing farm household incomes, diversifying crop production, empowering women, increasing agricultural diversity and increasing productivity. Diversifying agricultural livelihoods into agricultural sectors such as livestock, forestry and fishing has increased livelihood opportunities, strengthened resilience, and significantly increased workforce participation in these sectors.

The present scenario triggers to counter the issues and hence it is evident to break the mould and come out with few models which are feasible rather existing and manageable. A model suited for addressing the above said facts is highlighted below:

- Identify a village with less than 500 households mostly agriculture dependent located nearby with adequate water sources and sizable land for agriculture practices.
- Educate the villagers about the proposed project, their contributions, responsibilities and make them understand the benefits and future.

- Form a village level committee following norms and include every household into confidence; agreement on participation need to be guaranteed.
- Earmark the selected land nearby village into field for agriculture, animal husbandry, fishery and allied purposes.
- Design the area using integrated agri-based holistic approaches (Good Agriculture Practices) for sustainable model using renewable energy sources viz.
 - Windmill for power generation
 - Gravity Pump technique for water management
 - Solar panels at possible roofs for energy required for running appliances
 - Biogas plant for cooking and relevant purposes

Methodology

- Select and plot the area for water reservoir, agriculture, animal husbandry, fishery pond, biogas unit, vermicomposting unit, azolla cultivation, community kitchen, farmers outlet, washrooms aligned with internal paths and water connections in integrated manner (Figure 1).



Figure 1

- Water source should be near to the selected area from where the water can be fetched using gravity pump or relevant renewable energies. Water management using modern techniques (drip,

sprinklers, canals) to be given utmost priority to sustain the entire plan.

- Selected area will comprise of cattle shades – Cow, Buffalo, Goat, Sheep. Poultry – Chicken/Duck and locally available livestock. Fishery pond along with hatcheries using tarpaulin sheets where water will be recycled.
- Agriculture field will be designed for farming livestock fodder, cereals and pulses, vegetables, fruits, floriculture, azolla culture, vermicomposting units and biogas unit. Sericulture, Apiculture and other relevant agriculture practices would be practiced for additional outputs.
- Wastes from animals and poultry will be used for biogas and vermicomposting from biodegradable wastes.
- The agri produce in the form of Milk, Eggs, Meat, Cereals and Pulses, Vegetables, Fruits, etc will be used for cooking and consuming for the village community on daily basis (breakfast, lunch, dinner) and excess produce will be stored and sold in the market.
- Members from every household Men and Women from the village will be contributing/serving for the farming and management of the field on rotation basis.
 - Kids/Elders will remain at home which will be looked after by the family Men/Women.
 - Each one will be provided with Identity Cards for Attendance/Working Shifts and for Meals – Breakfast, Lunch, Dinner, etc.
- The proposed model will be useful for:
 - Local Employment (For every household of the village)
 - Nutritional Food (Breakfast, Lunch, Dinner)
 - Adequate time for family members
 - Social binding with the villagers while working together
 - Zero migration for jobs, Addiction free and Happiness
 - Building village with necessary infrastructure (roads, power, schools, clinic, playgrounds, parks, recreational activities) from the revenue generated.
 - Conservation of natural resources (forests, rivers, etc).

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