



Forest Department

- Afforestation program should maintain a balance between the indigenous, local species and commercial species, so that the tribal communities can maintain their traditional livelihoods practices which are farm and forest based.

Integrated tribal development agency (ITDA)

- The solutions and policy decision should not be based on top down approach but should evolve through a bottom up approach. ITDAs should have participatory dialogue and brain storming with the tribals on the tribal eco system – issues and challenges and their aspiration and perception
- Individual forest right (IFR) land development should look into food security and nutrition as the primary focus and not be based on cash crop farming.
- Their livelihood model should be a blend of traditional and modern scientific knowledge and adopt those practices and technology which complement and supplement their livelihoods.



Civil Supply Department

- TPDS should decentralize the procurement of food grains from state and downwards to reduce overhead costs of procurement and supply, which will also ensure that local food habits are protected. Fair price shops should be with the Gram Panchayats.

Communities

- The tribal communities should discuss among themselves and brainstorm on the challenges with regard to articulating their needs and expectations from government programs. They should demand that the planning for the programmes & schemes have to be based on their needs and requirement instead of top down approach.
- The tribal farmers have to be open minded and willing to experiment with new technologies and develop a model with a blend of traditional and modern scientific knowledge.
- The communities should actively partner with forest department and build their capacities to manage, conserve and protect their forests and biodiversity for their very own sustenance.
- Farmers should focus on traditional mixed cropping practice so as to reduce the rate of dependency on TPDS.

Non Government Organisations/ other organisations

- NGOs should act as facilitators in the integration of traditional with modern agricultural practices in a participatory approach, so that the tribal farmers learn and see the field experiment and then make their choices in adopting the techniques.



Changing trends in the agricultural practices of Tribal Farmers: Need for Intervention

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The face of modern agriculture is not headed in a direction that the world perceived to address the issue of Food security - the climate is changing, we're combating a drinking water crisis, and our food production practices have become unsustainable. Modern agriculture was seen with an absolute new different perspective that overlooked the traditional indigenous agriculture practices which were time tested and evolved in the farmer's laboratories in fields. Traditional indigenous agriculture is a repository of knowledge and a product of the adaptation of farming practices to the local environment that needs to dovetail with the innovations and practices of modern agriculture.

“Study of Indigenous Agricultural Practices among the Tribal's of Andhra Pradesh and Telangana - the Trajectory of Transition and Impacts on livelihoods and Food Security” was primarily undertaken to document traditional agricultural practices by Centre for people's forestry amongst the tribal communities in the districts of Srikakulam and Vishakhapatnam in the state of Andhra Pradesh and in Adilabad district of Telangana state. The study brings to light and compares the traditional with the current agriculture systems, how unique and innovative they were and over a period of time how the practices changed and its impact on mankind, environment, food and hunger. It has also raised pertinent questions on sustainability and the increased vulnerability of small and marginal tribal farmers

Key message of the Brief

- Traditional agricultural practices demonstrated that the coping mechanism against adverse changes in climate was inbuilt. It is time to design interventions which combine traditional practices with modern scientific knowledge
- New agricultural initiative should be able to sustain economic viability of the tribal farmer
- It should address human food, fiber, fodder and bio fuel needs
- It should protect and enhance environment quality and natural resources

against climate change. It is both a qualitative and quantitative study, where data were gathered through interviews, direct observation, focus group discussions, and questionnaires and analyzed. A total of 534 households were surveyed, from 35 villages, which represent 13 percent of the total households and 50 percent of the total villages of CPF operational area in the districts respectively. The households and the villages were selected through random sampling.

Key policy suggestions and recommendations to stakeholders from the report “Study of Indigenous Agricultural Practices among the Tribal's of Andhra Pradesh and Telangana - the Trajectory of Transition and Impacts on livelihoods and Food Security” are presented in this brief.



Concerns about current trends of agricultural practices of Tribal Farmer

- With the propagation of cash crops and mono crops, subsidies from government on seeds, pesticides and fertilizers, promotion of High Yielding Variety of seeds, and increased market influence in the agriculture system, there has been a paradigm shift in the cropping pattern, with decline in traditional cropping pattern (mixed cropping) which was rich in crop diversity and had ensured food security at all times, even in times of extreme climatic adversities (drought, floods, etc.).
- The intensive mono and cash cropping with the use of chemical fertilizers and pesticides has firstly led to the potential threat of extinction of traditional seed varieties and traditional knowledge of cultivating them and secondly has caused ecological damage. The extensive use of chemical fertilizers and pesticides poses an environmental risk of soil degradation, water contamination and high input cost and low profitability in the future.
- Over time there has been reduced dependency on the forest, which has brought about a great change in their food habits and cultivation pattern. With the advent of the Targeted Public Distribution System (TPDS), the tribals feeling that they are food secure and gradually forgetting their traditional practice of grain reserve management. They have gradually moved towards growing cash crops, thus reducing, year by year, the extent of land area devoted towards growing food grains for their personal consumption. The above factors have posed serious questions on the issue of food security locally and nationally as well as on Sustenance of the PDS system in the long run.
- Increased input costs due to increased prices of high yielding varieties (HYV) of crops, chemical fertilizers and pesticides, etc. may lead to reduced profit for the tribal farmers, which may discourage them to continue agriculture.



Suggestions for policy makers

- The agriculture policy should outline an Agriculture Land Use Policy, for the extent of land that can be undertaken for food crop and commercial crop by farmers. This would address the current imbalance in the farming sector between availability of food crop for food security and economic viability through cash/ mono crop farming. Farmers should be compensated for the extent of land undertaken for food crop to sustain the practice.
- Agriculture Programs and Extension services- Agriculture research, programs and extension service should align modern technology with the traditional practice and build on the traditional knowledge and not ignore it. By integrating the innovation systems of both traditional and scientific communities, a much larger range of new ideas and practices could be generated with the “participatory approach” to agricultural innovation and leading to balanced choices in agriculture.
- Investment in knowledge-sharing and awareness-raising activities- Agriculture research should be based locally, to demonstrate economic and ecological benefits based on best management practices, so that it is relevant and has a local history of use and can be field tested locally for the farmers to see the environment and economic benefits first hand for adoption.

Forest Department should facilitate the Rights of tribal's on Community Forest Resources under FRA at the earliest, so that tribal's can exercise their NTFP and uncultivated food rights.

- All the schemes that are to be implemented to propagate livelihoods- farming and non farming should undergo a Sustenance Audit and should be organic in nature to ensure that the outside knowledge and practice which is undermining their core philosophy of sustainable livelihoods are non negotiable.
- The TPDS should diversify to address the issue of food nutrition apart from providing Food security by supplying commodities such as millets, pulses, cereals and vegetables. and also should decentralize the procurement of food grains from state and downwards to reduce overhead cost of procurement and supply, which will also ensure that local food habits are protected. Fair price shops should be with the Gram Panchayats.



Recommendation to various stakeholders

- Based on the gaps that have been identified in the current agriculture practices, some suggestions have been made to improve agriculture especially for the small and medium tribal farmers to make it a sustainable and viable option.

Agriculture department

- Propagation of mixed and intercropping should be taken up in mission mode - This can address the issue of food availability, nutrition, soil and water degradation and most important reduce climate related vulnerability. The practice should be scaled for it to be a viable option.
- There is a need of larger protection and safety nets for small farmers through high crop insurance, credit and bank linkages, incentives and subsidies should be the prime focus of the government to ensure that agriculture as a livelihood is sustainable amongst the tribal farmers.
- Mechanization of farming should be considered keeping in mind the local terrain, practice and most important to be seen through a gender perspective; their need and changing roles of women as farmers. Women should be trained on the use of technology, and farming equipment.
- Institutional mechanism to be improved where the “Custom Hiring Centre” scheme of the Agriculture Department should be revived and re strengthened to benefit and support mechanization amongst small and marginal tribal farmers as small farmers have not benefited from mechanization in agriculture as it is not economically viable due to the high cost of equipments.

