AGRO-FORESTRY REFORM IN TAMIL NADU, 2018

SYNOPSIS

In 2016 the farmers in the state of Tamil Nadu suffered economic hardships due to the failure of tropical monsoons. Poor yield reflected gaps in accountability in agricultural practices, disparities in policy planning, and inadequate coordination across the general public, especially at the micro level. In 2017, the government of Tamil Nadu modified its agricultural program to be robust and flexible to accommodate the temporal variations of the monsoons. One such measure is to bring in more areas under tree cultivation and to strengthen the intercropping techniques through the horticulture department and the forestry department. In 2018 during the agro-forestry meeting, a recommendation to integrate practices led to the formation of Tamil Nadu Forestry Innovations unit. TNFI then set about planning the roadmap, building a service delivery chain that linked the farmers to the universities, centers of agriculture, forest-based industries. Under the forestry department, TNFI proposed a system that focused on four key areas, involving measurable service delivery targets against which DFO's take appropriate measures.

INTRODUCTION

In 2016, the northeast monsoon was 45 percent short while the southwest monsoon was 19 percent short resulting in the gradual decrease of average annual rainfall of Tamil Nadu to 62 percent. It has been the worst rainfall year in the state's last 140 years and the state's reservoirs were 82 percent short of normal levels. It has led to a decrease in the agricultural coverage area to the tune of 350,000 hectares which is equivalent to 26 percent of the total agricultural area. Inadequate rainfall has led to distress among the agrarian community which witnessed suicides of 144 farmers. It resulted in government amending the agricultural policy with institutions accountable for administrative lapses.

With 21 of the 32 districts of Tamil Nadu severely affected, the state has officially declared a drought on January 2017. The government amended the policy to make it mandatory for credit institutions to secure the loans issued for crops under the prime minister's crop insurance scheme (PMFBY- Pradhan Mantri Fasal Bima Yojana - managed by a group of 10 insurance companies with the government). The government looked for every way to introduce new efficient methods in agriculture and to strengthen its existing programs to avoid the drought both in the short term and long term and eventually cease loss of lives and resources. One of the long-term solutions is to improve the rearing of trees over cultivated private agricultural lands and fallows with appropriate guidance and subsidies from the forestry department.

FORESTS AND THEIR CHALLENGES

Forests are a dynamic ecosystem consisting of flora, fauna, and microorganisms safeguarding the ecological security. The forest policies of 1894 and 1952 stressed the revenue generation aspects of the forests. However, the 1988 National Forest policy emphasized ecological balance and restricted the derivation of direct economic benefits and encouraged participatory forest management. Despite the demands of the increasing population, the amendment ensured an increase in forest and tree cover.

India has about 708,273 square kilometers of forest which account for 21.53 percent of the geographic area of the country. The government has a long-standing goal to increase the forest cover to 33 percent in general and 66 percent in the hilly and mountainous region since the 1988 national forest policy. Indian forests sustain the needs of 17 percent human and 18 percent livestock population of the world. Tamil Nadu contributes 3.86 percent to National forest cover and, the state's forest accounts for 23.80 percent of the state's geographical area with 27,440 square kilometers. Principal Chief Conservator of Forest (PCCF) heads the Tamil Nadu forest department. There are thirty District Forest Officer (DFO) each responsible for the ranges under their respective district work with the range officers. Range Officers further supported by their field assistants manage the forests on the ground.

AGRO FORESTRY AND THE CHALLENGE

Agroforestry is the answer to both the increase in the forestry cover and welfare of the livelihood of farmers where the perennials (trees) complements annuals (food crops). Range officers distribute the saplings of the tree to the local farmers gratis. Casuarina, Melia Dubia, Silver Oak are the commonly preferred saplings with Melia Dubia extensively cultivated due to its preference among different industrial units in various stages of the tree. Previously, the officer guides the farmers only on the operations/ rearings and distribute commensurate incentives while the middlemen exploit the market for the grown trees. The team identified the following as the measures for the improvements.

1. A Mechanism for price assurance with the pulp and lumber industries and the farmers through pre-production agreements.

- 2. A Mechanism to ease the procedures for the Public-Private partnerships and facilitate the forest-based industry.
- 3. A Mechanism for exclusive insurance for trees in agro-farming or inclusion of perennials in the agricultural crop insurance.
- 4. A Mechanism to scale the coordination of the farmers and guide them on intercropping techniques

PRE-PRODUCTION AGREEMENT

With a view to integrate farmers with bulk purchasers including lumber, pulp, and plywood industries for better price realization through mitigation of market and price risks to the farmers and ensuring smooth forestry raw material supply to the forest-based industries. The unit would facilitate the acknowledgment by the parties that they transact on the condition of required quality assurance of the raw material with specific remuneration at fixed frequency intervals which is set out in the agreement and, any remedies for lack of quality should be borne by those who avail remuneration from the industry.

PUBLIC -PRIVATE PARTNERSHIP

Creating feasible and viable opportunities for enterprising sector organizations to deliver desirable public services including the increase in forest and tree cover, economic opportunities for the indigent, enhancement of the biodiversity of the habitat. The 2018 national forestry policy recommend leasing the lands identified by the forestry to private sector upon the involvement of the party with retention of quality of the land and biodiversity for the targeted period and the unit would facilitate the program through improved assessment of forestry resources and publish the specific recommendation.

INSURANCE

With a view to cover the financial loss in the event of failure of the perennial crop limited to natural events, pest infestations and uncontrollable diseases, the unit would facilitate the recovery of partial or full amount of claim through the organizations that accept the proposal of the department or seek collaboration with the existing crop insurance companies that handle annual crops. The unit would further assist and inform the insurer and insurance company in identifying the vulnerable factors in their respective regions by utilizing its resources available under Chief Conservator of Forest, GIS.

INTERCROPPING

With a larger interest to improve the profits of the agroforestry community, the unit would facilitate in imparting the knowledge from the experts at various other institutions to the farmers and its field officers at their flexibility in practising the techniques that maximize the yield of their annuals limited to their respective circumstances . With these set of guidelines, we hope that all the institutions along with the adopters of agroforestry flourish and pursue acts of the greater good. :)

^{*} Writing is a sample policy memo, research methodologies such as difference in difference, instrument variables, regression, pre-post methods are availed at GitHub repo marked in resume.