Sustainability in Agriculture: SALT Model

Manipur is a mountainous region with rich biodiversity and where about 80% of the population depends extensively on agriculture for their livelihood.[1] However, in recent years, due to the repercussions of climate change, this region has seen its average temperatures rise from 20 degree Celsius to 36 degree Celsius, thus rendering the traditional practice of "shifting agriculture"[2] (slash and burn agriculture) virtually impossible.

In the past, land regeneration happened fairly quickly. However, with the new shifts brought around by climate change, the land is quickly slipping into degradation, leading to a decline in food production, resulting in food insecurity and hunger[3] for the indigenious tribes and communities. It is now more important than ever for the people of these regions to embrace sustainability in agriculture in order to sustain their livelihoods.

SALT: Livelihoods and Sustenance in Indigenous communities

Anaha Trust, a domestic foundation with its heart in nurturing grassroot initiatives on societal welfare worked with developing and scaling up alternative models of sustainable agriculture. Anaha, as its commitment to work on environment, health and education primarily in Kerala and Manipur, has been supporting Mr.Gandhi, - a renowned agriculture expert - in his efforts to shift away from traditional slash and burn agriculture for the past three years. In 2021, they also supported Mr.Gandhi in partnering with nonprofits for scaling up the model being developed. These NGOs were then brought in as Anaha's partners, extending the mentoring support of the Trust to these grassroot organizations.

Gandhi works with the Aben Village Development Committee, acts as an advisor for the SALT programs taken up by Sunbird Trust and Hope Foundation, while also engaging with government stakeholders including Manipur State Rural Livelihoods Mission and NABARD (National Bank for Agriculture and Rural Development) along with other Manipur based non-profit organizations.

The sustainable model of agriculture that is being implemented is known as Sloping Agricultural Land Technology (SALT). These farmers called SALT farmers use an innovative process of self-selection which helps them to make use of incentives ranging from saplings of fruit trees, improved seeds, simple tools, as well as financial support for livestock rearing. These incentives push for the farmers to adopt SALT agriculture in place of their traditional method of agriculture. In order to ensure that there is minimal resistance when it comes to adopting SALT agriculture, the incentives - each of which could generate an additional income for the farmer -

[1] Roy et.al (2018)
[2] https://www.jetir.org/papers/JETIREC06132.pdf
[3] World Economic Forum (2022). Food Security

were therefore added as a part of the program design itself. The model has ensured the identification of critical steps in farm establishment to allow the farmer to avail an incentive, before moving to the next step.

The system works well from a holistic angle, thanks to its innovative monitoring system that has been implemented by the SALT farmers. The SALT farmers have formed a village development committee in order to monitor the progress of each farm twice a year - in April, before the onset of monsoon, and in November, post monsoon. Colour codification is used by this committee in order to tag a farm as healthy, average or poor. After having categorized the farms, they closely monitor the farm and suggest ways to improve the health of the farm. The process of adapting to the SALT model is centred around high contextualization as far as the social and agro-social conditions of the hill region(s) in Manipur are concerned. To ensure that the process is grounded in local wisdom, the farmer field school (FFS)[4] approach and the 'participatory technology development process' (PTD)[5] are used.

The SALT adaptation model also enables agri-business by encouraging the cultivation of cash-crops like tree-bean, betelnut and oranges, thus attracting local youth and giving them a great reason to abstain from migrating to other cities for temporary and unreliable sources of employment.

Way Forward

With more than 150 farmers in Aben, Manipur and neighbouring villages now implementing SALT, the project hopes to aid in the regeneration of natural forests. Currently, the area being deforested and set afire for *jhum* (shifting agriculture) in the project area is about 10,000 hectares across a 10-year cycle. By 2025, the project anticipates at least 200 households would have shifted from *jhum* to SALT/ alternative models, thereby reducing the area being deforested by 600 hectares each year and 6000 hectares over a 10-year jhum cycle. This project plans to cover about 500 farmers over 500 hectares of Tamenglong by 2025.

Anaha Public Charitable Trust aims to support development of alternative models of agriculture which are environmentally sustainable and provide the hill communities with sufficient produce for food and market.
Sattva is dedicated to supporting Anaha Trust in end-to-end programme management including:

- Portfolio advisory and support
- Impact communication and marketing strategy
- Partner recommendation, due diligence and onboarding
- Partner monitoring and evaluation
- Partner capacity building

[4] https://www.g-fras.org/en/good-practice-notes/farmer-field-schools.html?showall=1
[5] https://www.britannica.com/topic/Participatory-Technology-Development

Anaha Trust works extensively in Manipur and Kerala in order to scale-up alternative models for environment conservation, health and education for lesser privileged communities in the two geographies.