Box 7 Eco-village programme in Odisha

Objective	The Eco-village project implemented by Agragamee in Odisha, India, aimed to address environmental challenges while promoting sustainable livelihoods in rural communities. The project's objective was to ensure food, nutrition, and livelihood security for 300 small farmers in 10 villages while building community institutions for sustainability and accountability.
Activities	Agragamee undertook activities such as promoting integrated farming systems, establishing irrigation systems, implementing innovative millet cultivation techniques, converting wastelands into farmland, conducting training programs, constructing irrigation tanks, installing energy-efficient vegetable coolers, and establishing grain banks.
Partnerships	Partnerships with the BPKP of the Odisha government, NABARD, and HDFC Bank provided technical expertise, financial resources, and market linkages. Collaboration with government agencies, academic institutions, and other NGOs leveraged resources and facilitated implementation.
Enabling factors	Community participation, collaboration and partnerships, and supportive policies. Active community involvement ensured ownership and sustainability, while collaborations brought expertise and resources. Supportive government policies created an enabling environment for the project.
Impact	The impact of the project was significant, addressing challenges faced by indigenous communities such as reliance on agriculture and wage labor, lack of irrigation facilities, and declining soil health. The project led to improved productivity, better land use, crop diversification, increased income generation, and the development of community-based organizations

Annexure 6

Case Study: Eco-village Project of Agragamee in Odisha

Introduction

This case study examines the Eco-village project implemented by Agragamee in Odisha, India. Agragamee, a non-governmental organization (NGO), aimed to address environmental challenges while promoting sustainable livelihoods in rural communities. The project sought to establish an eco-friendly village model that integrates conservation practices with socio-economic development.

Background

Odisha, a state in eastern India, faced numerous environmental issues, including deforestation, soil erosion, and depletion of natural resources. These challenges severely affected the livelihoods of rural communities who relied on agriculture and forest-based activities. Agragamee recognized the need for a holistic approach that simultaneously focused on environmental conservation and socio-economic empowerment.

1. Scope and objectives: The Eco-village project by Agragamee aims to ensure food, nutrition, and livelihood security for 300 1-acre small farmers, both women and men, in 10 villages. The project also focuses on building and strengthening community institutions to promote sustainability and accountability on the ground.
2. Origin of the project: From 2013-2017, Agragamee, with financial support from the German Karl Kübel Stiftung (KKS), implemented the "Eco-Village Development Project" in 15 villages in the Kashipur block of Rayagada district. This phase covered 400 acres of land belonging to 400 farmers for the development of family farms and 200 acres of land for the development of commons. Agragamee mobilized 400 families in the family farm model, with each family cultivating 1 acre of land, primarily growing cashew and mango trees along with intercropping. Building on the success of this model, KKS supported Phase II of the project from 2017-2021 in the Tentulikhunti block of Nabarangpur district. This phase focused on a cluster of 10 villages with 300 farmers establishing the 1-acre Eco-farm Model, including 75 women farmers for goatry and youth for establishing 10 "Kirana Dukan" (small grocery stores). Currently, Phase III is in the conceptual phase, with plans for implementation from 2023 onwards in a nearby cluster of 20 villages in the Tentulikhunti block.
3. Donors and policy convergence: The German Karl Kübel Stiftung (KKS) has been a significant donor and partner of Agragamee since 2006. They have collaborated on various projects, including the implementation of two Micro Hydel Projects and one Solar Lighting project in the Kashipur block. The project aligns with the policies of the Mission for Livelihood Promotion and Income Generation (MLIP) and the Millet Mission, thereby converging with the larger development goals of the Odisha government.
4. Partners and finance: Agragamee works in collaboration with the BPKP of the Odisha government, NABARD, and HDFC Bank. These partnerships provide support in terms of technical expertise, financial resources, and market linkages.
5. Activities: The project implements a range of activities to achieve its objectives, including:
    1. Integrated Farming: Promoting diversified and integrated farming systems to enhance productivity and resilience.
    2. Lift Irrigation: Establishing lift irrigation systems to ensure water availability for agriculture.
    3. Bamboo Irrigation: Utilizing bamboo-based irrigation systems for water management.
    4. System of Millet Intensification: Implementing innovative techniques for millet cultivation to improve yields and sustainability.
    5. Wasteland to Farmland Transformation: Converting wastelands into productive farmland through land development and soil conservation measures.
    6. Farmer Schools: Conducting training and capacity-building programs to enhance farmers' knowledge and skills.
    7. Irrigation Tanks: Constructing irrigation tanks to store rainwater for agricultural purposes.
    8. Zero Energy Sabzi Coolers: Installing energy-efficient vegetable coolers to reduce post-harvest losses.
    9. Grain Bank for Millets: Establishing Grain banks to conserve water and promote millet cultivation.

Study Area Details: The project focuses on working with 1-acre family farms, and the study area covers villages that have been engaged in eco-friendly farming practices. The area has been successful in producing and marketing approximately 412 tonnes of mangoes.

Functioning Structure: Agragamee operates in collaboration with its partners and stakeholders, including the government agencies, financial institutions, and the local community. The project follows a participatory approach, involving the community at every stage

Project Activities:

1. Stakeholder Engagement: Agragamee initiated extensive consultations with local communities, government agencies, and other NGOs to foster collaboration and gather insights. The organization believed that involving the community from the project's inception would promote ownership and long-term sustainability.
2. Environmental Conservation: The project prioritized activities that aimed to restore and conserve natural resources. This included afforestation drives, soil and water conservation measures, and promotion of sustainable farming practices. Agragamee conducted training sessions to educate villagers on eco-friendly agriculture techniques, organic farming, and the importance of biodiversity conservation.
3. Livelihood Enhancement: Recognizing the link between sustainable livelihoods and environmental conservation, Agragamee focused on economic activities that aligned with the principles of the project. The organization provided training and support to local artisans, helping them create marketable products using eco-friendly materials. Additionally, they established community-based enterprises like beekeeping and vermicomposting to generate alternative income sources.

Enabling Factors:

1. Community Participation: The active involvement of the local community was instrumental in the success of the project. The villagers embraced the project's objectives, actively participated in decision-making, and took ownership of the implemented activities.
2. Collaboration and Partnerships: Agragamee formed partnerships with government agencies, academic institutions, and other NGOs to leverage resources, knowledge, and expertise. These collaborations facilitated the smooth implementation of activities and enabled access to funding opportunities.
3. Policy Support: The project benefitted from the supportive policy environment in Odisha. The state government had a strong focus on sustainable development and had implemented policies promoting eco-friendly practices and community-based initiatives. These policies created an enabling framework for the Eco-village project.

Impact:

1. Problem Analysis: The indigenous/tribal communities in the new villages face several challenges, including a heavy reliance on agriculture and wage labor. The lack of irrigation facilities, small landholdings (averaging 3 acres), and rainfed agriculture make farming economically unviable. In one village, male members are forced to migrate to cities as wage laborers. The prevalence of commercial maize and the decline in paddy cultivation have resulted in the excessive use of chemical fertilizers, leading to deteriorating soil health and declining production. Additionally, farmers' lack of awareness about market prices prevents them from receiving fair prices for their crops.
2. Relevance: The proposed project design is highly relevant to the challenges faced by the community. Its activities focus on soil and water conservation, regenerative agriculture, and addressing food, nutritional, and livelihood security. By implementing these measures, the project aims to alleviate the core problems faced by the community.
3. Coherence: The planned activities in the project are well-aligned with each other and contribute to addressing the key outcomes of the project. The interventions, such as mobilizing farmers, developing micro-plans, building consensus for 1-acre Eco-Farms, investing in soil and water conservation, and promoting regenerative agriculture practices, are all interconnected and flow logically. The project also aims to converge with government initiatives, such as water harvesting

and infrastructure development, while establishing a Meso Institution of Farmer Producer Company (FPC) for market linkages.

4. Effectiveness: The objective of the project is to improve the livelihoods and climate change resilience of 600 tribal farmers through increased production, value addition, income generation, and the development of community-based organizations. The project's activities, including the establishment of family farms, have proven effective in the current 10 villages, leading to improved productivity, better land use, and crop diversification to ensure food security and minimize climate-related risks. The project also plans to leverage the resources of the millet mission to improve millet cultivation practices and increase yields.
5. Efficiency: The current project has achieved its planned activities with an average investment of Rs. 55,593 per household over a 4-year period. This investment has created 300 family farms and supported around 50 landless households in income-generating activities. The additional income resulting from the intervention is approximately Rs. 46,258 per household per year. The new project has a total budget of INR 6,01,90,000, with KKS contributing INR 5,65,74,693 and local contributions amounting to INR 36,15,307. The administrative costs are around 26 per cent of the foreign contribution, and convergence with relevant government departments further enhances efficiency.
6. Significance: The current project has demonstrated the significance of water resource development, support for landless/women-led households, capacity building of farmers, and the strengthening of the Farmer Producer Organization (FPC). Expanding the project to include an additional 600 households in the new villages will create a ripple effect, increasing shareholders and building a base of horticulture producers under the FPC. The project's coverage of 42 per cent of the villages in the Tentulikhunti Block also holds significance in influencing state, district, and block administrations for the adoption of the family farm model.
7. Sustainability: The project demonstrates economic sustainability through investments in family farms and income-generating activities for landless households. Community contributions in terms of labor and resources have fostered a sense of ownership and sustainability. The project's focus on climate-adaptive and resilient models, optimal land use, organic farming, and diversification ensures long-term sustainability. Additionally, the proposed introduction of jackfruit orchards and collaboration with the Jackfruit Mission of the State of Odisha further enhances sustainability. Institutional sustainability is addressed through the Nabagamee FPC, which provides critical access to markets, value addition, technical expertise, financial linkages, and advocacy platforms.
8. Replicability: The cost-effectiveness and sustainability of the project make it replicable in other areas. The family farm model can be integrated with existing government programs and initiatives, creating a sustainable convergence model at the district level. Agragamee's role as a technical and social advisor can further facilitate replication and transformative change in the region.
9. Overall, the proposed project design and activities demonstrate feasibility and the potential for transformative change in the new villages. By implementing effective resource allocation and incorporating key learnings from the current project, the project can have a significant impact on the targeted communities.

Conclusion

The Eco-village project implemented by Agragamee in Odisha serves as a remarkable example of integrating environmental conservation with socio-economic empowerment. Through community participation, strategic activities, and enabling factors, the project achieved significant impacts in terms of environmental restoration and improved livelihoods. The success of this project paves the way for scalable and replicable models to address environmental challenges and promote sustainable development in rural areas.