

Report of ERECON Extension Programs in 2022

Following extension programs were implemented in the program year of 2022 from 1 April 2022 to the end of March 2023.

1. Program on Environmental Rehabilitation and Conservation in Asian Countries

1-1 *Strengthening National Biodiversity and Forest Carbon Stock Conservation through Landscape-based Collaborative Management of Cambodia's Protected Area System as Demonstrated in the Eastern Plains Landscape, CAMPAS (Phase 6)*

This project aimed to establish the system of community-based forest management and rehabilitation in community protected areas (CPA) located in Mondulakiri and Ratanakiri Provinces, Cambodia. In 2021, a series of workshops were conducted in the target areas to enhance community awareness and understanding of reforestation and habitat restoration. Reforestation activities under the project were completed by June 2022, but monitoring activities in collaboration with local residents are continuing as a following-up.



Photo. 1 Monitoring activity in Mondulakiri Province, Cambodia (Project 1-1)

1-2 *Project of Reforestation for Sustainable Forest Management in Kampong Cham Province, Cambodia (Phases 3 and 4)*

The local residents in Kampong Cham Province have faced hardships with climate change impacts, such as droughts and flooding because of low-density forests. This project aims to promote reforestation activities in pagodas and elementary schools with residents. It is expected to contribute to the conservation and management of the forest for promoting the objective of "Sustainable Forest Management" in SDGs No. 15. The reforestation activities were conducted on public land around the lake of Prey Chhor District in Phase 3, and one elementary school and one pagoda in Chamkar Loeu District in Phase 4. Also, through the workshop on the "Importance of Forest", the residents learned why trees are crucial for our livelihoods and its benefits. Each area has formed a Forest Management Group for managing and monitoring the planted trees.

1-3 *Project on Greening for Satoyama Regeneration in Eastern Cambodia (Phase 2)*

Biodiversity was abundant in the past in the northeastern part of Cambodia, Mondulakiri and Kratie Provinces, however, it has been severely damaged due to deforestation and forest degradation caused by land conversion and illegal logging. Local residents are aware of

the risk of climate change and other disasters, and are interested in sustainably managing the forest. However, the knowledge and techniques could be more extensive. Accordingly, this project provides the local residents the opportunities for reforestation activities to recover biodiversity and workshops for deepening knowledge on approaching to sustainable forest management and environmental conservation. The reforestation activities were conducted at three elementary schools in Mondulakiri Province and two elementary schools in Kratie Province. Forest Management Group formed in each project area has been taking care of the planted trees and is expected to continue managing the trees.



Photo. 2 Reforestation activity in Kampong Cham Province, Cambodia (Project 1-2)



Photo. 3 Reforestation activity in Kratie Province, Cambodia (Project 1-3)

1-4 *Project on Promoting Reforestation for Rehabilitating Rural Environment in Kampong Cham Province, Cambodia (Phases 2 and 3)*

In Kampong Cham Province, Cambodia, eight species of 10,000 native trees were planted in 10 districts in collaboration with 493 local people, aiming to restore the environment of rural areas for future generations. The workshop on "Importance of Forest and Biodiversity Conservation" was also conducted for local people. In Phase 2, the planted sites were being managed by the Forest Management Groups formed with local residents. Based on the questionnaire survey conducted to the participants, all people were aware of how important it is to increase the forest resources in their community, and the half of them widely understood the multi-benefits (economically, environmentally, and socially) of the forest.

These results testified to the importance of forest environmental education with tree planting activity at the grassroots level. In Phase 3, the project continues to promote reforestation activity across ten districts in Kampong Cham Province, and local people are preparing the planting seedlings under the supervision of the Provincial Department of Agriculture, Forestry and Fisheries.



Photo. 4 Reforestation activity in Kampong Cham Province, Cambodia (Project 1-4)

2. Program on Sustainable Use of Natural Resources in Asian Countries

2-1 Project on Capacity Building and Women's Empowerment of Agricultural Cooperative through Production and Sales of Safety Agricultural Products by Promoting Sustainable Agriculture in Srei Santhor District, Kampong Cham Province, Cambodia (Phase 2)

Thirty local farmers who were eager to learn sustainable agricultural practices were selected and received the compost boxes and tanks for initiating sustainable agriculture in Phase 2. The Agricultural Cooperative (AC) in Srei Santhor District has formed and tried to run gradually. In 2022, there were many difficulties in running AC by themselves, however, they successfully organized the AC Annual Assembly Meeting with the support of the Provincial Department of Agriculture, Forestry and Fisheries and ERECON. The biggest outcome from the activities in 2022 was starting the collaboration with one of the biggest fresh vegetable distributing companies after their visits to AC members' farms and the discussion with AC board members. ERECON concluded the MoA with the company on behalf of AC for the continuous strengthening Srei Santhor AC.



Photo. 5 General meeting of Agricultural Cooperative in Srei Santhor District of Kampong Cham Province, Cambodia (Project 2-1)

2-2 Consultation Services for the Promotion of Resource-Recycling Agriculture in Kampong Cham Province, Cambodia

ERECON Institute provides consulting services based on cumulated experiences and knowledge from many years of local activities in Southeast Asian countries. In 2022, in response to the inquiry from the Japan Water Agency, Extension Center of ERECON Institute arranged their visits to some project sites under Japanese aid and meetings with the director of the Provincial Department of Agriculture, Forestry and Fisheries, Cambodia, other relevant officers, and local farmers to discuss the current agricultural situation and challenges for rural development in Cambodia.



Photo. 6 Interview to local farmers in Kampong Cham Province, Cambodia (Project 2-2)

3. Program on Environmental Education in Asian Countries



Photo. 7 School greening in Tbong Khmum Province, Cambodia (Project 3-1)

3-1 Project on Promoting School Environment Greening aiming for Forest Environmental Education in Tbong Khmum Province, Cambodia (Phases 1 and 2)

In Tbong Khmum Province, mixed forest, which was the treasure trove of biodiversity, has lost significantly due to the huge land conversion mainly to rubber plantations. Environmental education for children is needed in order to strengthen the foundation for future forest conservation. Therefore, this project promotes a green environment in primary schools and forest environmental education to local students and residents. In addition to the workshop on "Importance of Forest and Biodiversity Conservation", the "Forest Management" competition was held at each school in order to encourage students to voluntarily participate in tree management. In 2022, Phase 1, the majority of schools showed a high level of

participation in tree management, and the average surviving rate of seedlings in 10 schools was more than 80%. In the year 2023, Phase 2, the project continues to promote forest environmental education at 16 primary schools in Tbong Khmum Province, and school principals, teachers, students, and their family members are preparing the planting seedlings.

3-2 Internship on Promoting Sustainable Agriculture

ERECON Headquarters conducted the internship on promoting sustainable agriculture from March 2022 to the end of May 2022. One Cambodian trainee was accepted to be in this internship and received various practical trainings on soil conservation, water rehabilitation, reforestation for biodiversity conservation, and its extension methods for promoting sustainable agriculture.



Photo. 8 Internship on promoting sustainable agriculture at ERECON in Tokyo, Japan (Project 3-2)

3-3 JICA Nikkei Training

Mono-culture farming has been widely adapted for producing cash crops in Latin America. As it has degraded soil conditions, local residents have increased their awareness of the importance of soil conservation for sustainable agriculture. With the support of JICA, this course was arranged for Nikkei people, who are descendants of Japanese families. ERECON Headquarters accepted a Nikkei trainee from Peru for JICA Nikkei Training, which was held from May to November 2022. Due to COVID-19, the training was conducted remotely from May to July, but the face-to-face training was done from August onwards. In the course, the trainee learned methods and techniques of sustainable farming practices, soil conservation, project cycle management, etc. Additionally, a picture book illustrating mining and nature was created by the trainee and e-published. The trainee is expected to apply the knowledge and techniques gained in the training to agriculture in his home country, Peru.



Photo. 9 Vegetable cultivation with sustainable farming practices at ERECON farm in Tokyo, Japan (Project 3-3)

3-4 International Green Volunteer Training in Cambodia

The International Green Volunteer Training was conducted from 24 to 28 February 2023 in Cambodia. The training tour was organized by ERECON Institute under the Green Fund of the National Land Afforestation Promotion Organization. This training aimed to deepen the understanding and knowledge of Japanese trainees on the importance of the forest through reforestation activity and environmental education. Ten Japanese trainees attended various lectures regarding forest management and conservation in Cambodia, visited several reforestation project sites, and conducted reforestation activities with local residents. Also, the field appraisal was conducted in collaboration with a local university. Based on the topics, 10 trainees were divided into three groups and conducted interviews/questionnaire surveys to local residents to collect raw data. The outcomes from the field appraisal were presented at the final session in Royal University of Agriculture. Through this training, the Japanese trainees and Khmer buddies (local university students) learned about the current status and backgrounds of forest deforestation in Cambodia and deepened their understandings on the importance of environmental symbiosis, especially with forests, for sustainable development.



Photo. 10 Field appraisal conducted in Kampong Cham Province, Cambodia (Project 3-4)

3-5 Evaluation on World Bank Project of Cambodia Higher

Education Improvement

The Higher Education Improvement Project (HEIP), aiming to improve the quality and relevance of higher education and research mainly in the fields of Science, Technology, Engineering, Mathematics and Agriculture at targeted higher education institutions, has been implemented since April 2018 with the financial support of the World Bank. In the program year of 2022, the intermediate evaluation was conducted, and ERECON President Prof. Dr. Machito MIHARA was appointed as an inspector for evaluating the programs of Faculty of Agricultural Engineering and Faculty of Agronomy, Royal University of Agriculture. After reviewing the achievement reports from each faculty, interviewing faculty members and students as well as observing research and educational facilities supported by World Bank were conducted from 22 to 24 March 2023. The evaluation reports were summarized from viewpoints of achievement level and sustainability of higher education systems, and submitted to the World Bank through the Ministry of Education, Youth and Sport, Cambodia.

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