

Annual Report 2013-2014

RCE Greater Phnom Penh

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1. RCE-GPP General Information

REC Greater Phnom Penh (RCE-GPP) was established and acknowledged by United Nation University--Institute of Advanced Study (UNU-IAS) in December 2009. It builds public awareness on the importance of creating harmony between agricultural development and natural environment conservation. The stakeholder organizations are Royal University of Agriculture (RUA) and Institute of Environment Rehabilitation and Conservation, Cambodia Branch (ERECON CaM), which work as coordinators of RCE-GPP in the Secretariat Committee; Ministry of Agriculture, Forestry and Fisheries (MAFF); Ministry of Rural Development (MRD); Ministry of Education, Youth and Sports (MoEYS); Ministry of Environment (MoE); elementary schools, local communities and private sector partners in target areas. In addition, Tokyo University of Agriculture (TUA), Institute of Environment Rehabilitation and Conservation (ERECON) and Association of Environmental and Rural Development (AERD) also contribute as an external advisory panel of RCE-GPP. The activities of RCE-GPP has been focusing on promoting “Education for Sustainable Development (ESD)” in Greater Phnom Penh, especially regarding “Food, Agriculture and Environment Education”. In Cambodia, attention has been paid to “Education for Sustainable Development (ESD)” in the agricultural sector for achieving food safety, as well as environmental conservation. Especially, local farmers and students in the elementary schools who would become farmers in the future have been being focused on.

Although there are some factors constituting sustainable rural development for economic growth and environmental conservation, “Food, Agriculture and Environment Education” has been mainly focused on in the area of Greater Phnom Penh. In the concept of ESD, RCE-GPP and ERECON have been collaborating on the projects entitled: “Promoting ESD through Food, Agriculture and Environment Education in Elementary Schools and Rural Communities in Cambodia”, “Building Capacity of Institutions to Help Farmers Better Adapt to Climate Change and Variability in Cambodia” and “Safe Vegetable Production in Cambodia and Vietnam: Developing the HARE-Network to Enhance Farmer Income, Health, and Local Environment”.

2. RCE-GPP Project Report 2013-2014

From April 2013 to March 2014, RCE-GPP included 2 more projects that the contents of the activities were related to the concept of ESD. Therefore, the three collaborative projects are “Promoting ESD through Food Agriculture and Environment Education for Elementary Schools and Rural Communities in Cambodia”, “Building Capacity of Institutions to Help Farmers Better Adapt to Climate Change and Variability in Cambodia” and “Safe Vegetable Production in Cambodia and Vietnam: Developing the HARE-Network to Enhance Farmer Income, Health, and Local Environment”.

2. 1) Promoting ESD through Food, Agriculture and Environment Education in Elementary Schools and Rural Communities in Cambodia

In the collaborative project entitled “Promoting ESD through Food, Agriculture and Environment Education in Elementary Schools and Rural Communities in Cambodia”, the activities focused on ‘*Forming farmers’ groups and promoting organic farming based on natural resource circulation*’, ‘*Promoting the distribution and sales of products with low chemical input*’ and ‘*Promoting food, agriculture and environment education for agricultural successors*’ under the collaboration of government, university, local NGOs and local communities. However, ‘Food, Agriculture and Environment Education’ has been implemented not only in elementary schools but also rural communities.

The achievements until March 2014 are as follows:

- Compost boxes and school organic gardens were already established at 10 elementary schools in Kampong Cham province under the supports of farmers’ group and school teachers.
- Farmers’ group was formed to implement and promote sustainable agriculture through natural resource circulation.
- The meeting to discuss vegetable production and marketing strategy was held in order to consult the relevant problems for solutions in farms to support and encourage local farmers to produce vegetable with low chemical input.
- Technical trainings on sustainable agriculture based on natural resource circulation with low chemical input were conducted in Cambodia, Thailand and Japan.
- Sustainable agriculture based on natural resource circulation with low chemical input was promoted to local farmers as non-member of the group through workshop and model farms.
- Pellet compost center was established and the regulations of center management were compiled.
- Eri-culture, wild silk production has been promoted to deepen awareness on environment in rural communities.
- The 3rd year project evaluation was conducted and observed. In the observation, transformative learning was achieved at the elementary schools and Samroung Safe Agricultural Products (SSAP) through trainings. The farmers and school teachers appeared to be engaging and willing to learn and implement knowledge learned.
- Questionnaire survey to observe ESD program contributed to environment education in elementary schools and local communities.



Discussion on Marketing Strategy with Vegetable Group of Local Farmers



Model farmer share their experience to other farmers



Cambodian Farmers Visited Japanese Farm (Tokyo)



3rd year Project evaluation 2014



Eri-culture Project Related to Environmental Raising Awareness



Survey to Observe ESD program in Elementary Schools

2.2) Building Capacity of Institutions to Help Farmers Better Adapt to Climate Change and Variability in Cambodia

The project of “Building Capacity of Institutions to Help Farmers Better Adapt to Climate Change and Variability in Cambodia” is hereinafter called ‘BUILD-FARM-ADAPT’ funded by Cambodia Climate Change Alliance Trust Fund (CCCA-TF). The project has been implemented by Royal University of Agriculture (RUA) in collaboration with Chea Sim University of Kamchaymear (CSUK) and Queensland University (Australia) in three districts (Pea Rieng, Ba Phnom and Kamchaymear) of Prey Veng Provinces. The target groups are ‘farming communities’ living in vulnerable area and PDAs. The objective of the project was an initiative to help vulnerable farming communities in potential disaster-prone areas resolve and alleviate climate-based agricultural production problems in a sustainable manner. New farming technologies—potential technology improvements for more sustainable agricultural production—were introduced to the target areas of the project for assessment by researchers and farmers.

The five most important achievements are:

- 1) A total of 100 on-farm field demonstrations were established throughout the project target area to assess the introduced technologies for improved adaptation to climate change and climate variability.
- 2) Through a combination of farmer exchange visits and community meetings in the target areas, the knowledge and awareness of the improved adaptation technologies were shared with more than 1,000

households; secondary level awareness (through farmer-to-farmer exchange) would be much greater than this.

3) To provide an understanding of the relationships between weather conditions and technology impact/agricultural productivity, a total of 26 families in the target communities were engaged in the collection of climatic data during the period of the project, 23 families recording rainfall data, and 3 families maintaining full sub-weather stations (where rainfall and temperature conditions were recorded).

4) Documents published by the project included: (1) *Review of Climate Modeling and Climate Change Adaptation in Cambodia, 2012 (English Version)*; (2) *Impact of Climate Change Variability and Adaptation on Agricultural Sector in Prey Veng Province, 2012 (English Version)*; (3) *Impact of Climate Change Variability and Adaptation on Agricultural Sector in Prey Veng Province, 2012 (Khmer Version)*; (4) *Farmer Perceptions and Cost-Benefit Analysis of Field Based Demonstration Technologies for Disaster and Climate Change Adaptation, Prey Veng Province, 2013 (English Version)*; and (5) *Sub-Weather Analysis of Ba Phnom, Kamchaymear and Pea Riang Districts, Preng Veng Province, 2013 (English Version)*.

5) Seven additional topics covered by the project included: (1) *Tools and procedures for extension worker (PRA, RRA and participatory diagnosis)*; (2) *Basic utilization of GPS and GIS*; (3) *Forage crop establishment and management for small farm households (+feed utilization and cattle fattening techniques)*; (4) *Potential of drip irrigation and vegetable production for small farm households*; (5) *Theory of climate change variability and its impact (greenhouse gas emission, crops and livestock production, etc.)*; (6) *Theory of adjustment principles of primary systems to adapt to climate change*; 7) *Training in the joint utilization of cassava as an animal feed as well as cash crop (training provided to project assistants and extension workers)*.



Farmers rice field visit ceremony



Farmers rice field visit ceremony

3.3) Safe Vegetable Production in Cambodia and Vietnam: Developing the HARE-Network to Enhance Farmer Income, Health and Local Environment

Royal University of Agriculture (RUA) has cooperated with University of California Davis to implement the project entitled “Safe Vegetable Production in Cambodia and Vietnam: Developing the HARE-Network to Enhance Farmer Income, Health and Local Environment” in Svay Proteal Commune, Saang District, Kandal Province, Cambodia. The goal is to empower small farmers with integrated

experiential education and training for sustainable vegetable production that limits postharvest losses and increases food safety, market access and especially income. The outcomes from project implementation are as follows:

- Relationship and Capacity Building of Cambodian academics to carry out safe vegetable production research and demonstration projects were developed.
- Sustainable cost-effective systems that stabilize yields enhance the local environment, promote farmers and consumer health and satisfy market demands.
- Farmers' post-harvest skills to get high-quality vegetables to market were improved.
- Micro-finance/micro-enterprise strategy for women through Joint Lending Groups (JLG) was implemented to support agriculture input.
- Education/Marketing team and private company HARPO-safe vegetable marketing in order to sustain products were collaborated.
- Capacity-Building was implemented with universities students and government officials.
- Effect of different vegetable cultural practices on weed, soil physical and chemical properties, post-harvest quality, and economics.



Meeting of Farmers' post-harvest skills to get high-quality vegetables



Micro-finance/micro-enterprise strategy for women

3. RCE-GPP Assessment and Evaluation 2014

RCE-GPP has been implementing activities with other RCEs around the world on “Education for Sustainable Development (ESD) program of 2005-2014”. Also, RCE-GPP has invited all the stakeholders to join assessment and evaluation workshop with a view to do self-evaluation, measure the strength of the activities in promoting ESD in the region of Greater Phnom Penh for almost 10 years. Moreover, data collection from the workshop will include importantly considering points to further develop frameworks of RCE-GPP activities in the future.

3.1. Outcome of workshop

a. Core Element: Governance, Scope of Collaboration, Research and Development, Transformative Education and Way forward. The structures are formed from many stakeholders such as elementary schools, universities, private companies, NGOs and so on. Scope of collaboration is referred to the increasing number of stakeholders such as private sectors, local farmers and elementary schools

according to increasing number of programs. Regarding Research and Development, some actors of RCE-GPP not only implement the programs but also conduct research. Technique studies are applied in program site. The transformative education of stakeholders related to concept of RCE in this moment is under limit. Thus, each stakeholder needs to share information of activity situation to other stakeholders regularly.

b. Function:

- RCE served as platform for dialogue among stakeholders through RUA and ERECON activities: For marketing network, model farmers group, information sharing/training on sustainable agriculture, agricultural product transportation, training on sustainable agriculture abroad, these results are expected to share with other stakeholders at annual meeting. RCE-GPP also serves as a resource base on ESD for stakeholders such as sharing knowledge on sustainable agriculture; providing the opportunities of technical training on sustainable farming practices, opportunities of sharing farmers' experiences related to sustainable agriculture.

- RCE contributed to aligning ESD in formal and non-formal education activities: Local farmers teach how to grow vegetable at elementary schools, RUA students also can get experiences or knowledge from local people.

c. Appreciative Inquiry: Regarding sustainable agriculture project (compost and liquid compost making, vegetable plantation in 10 elementary schools, good group networking, structure and management of SSAP) in Samroung, Kampong Cham province, people changed idea to less chemical use. Also, awareness of climate change adaptation in the local area in Cambodia was raised. Saving group for agricultural investment was conducted in Kandal province in January 27, 2013.

d. Further Expectation:

- Capacity building on vegetable growing, micro-financing, community development and marketing channel including price control will be trained to local sectors.

- Products of low chemical input are supplied continuously in the commune.

- Agricultural subjects are set up in elementary schools and will be advanced under the aid of local farmers.

- All stakeholders need to ensure understanding of RCE concept and its activities.

- Promote RCE objectives and its activities to the public

- Share information and experience within stakeholders.

- Increase RCE network through academic institutions to local sectors.

- Extend, promote and publish through media, social media of RCE project and activities.

- Engage participation from all stakeholders (private sector, media, civil society, NGOs, grassroots and government) and ensure benefits to all stakeholders.

- RCE should organize monthly, quarterly, annual meeting, workshop and general assembly for sharing information, knowledge and experience to each other for resolution



RCE-GPP Assessment & Evaluation Workshop in Royal University of Agriculture



RCE-GPP Assessment & Evaluation Workshop Group discussion in Royal University of Agriculture

4. Conclusion

For raising awareness on ESD at the elementary schools, the student experiments and the seminars on “Food, Agriculture and Environment Education” were conducted in 2012. Also, the capacity building on ESD has been implemented to the local farmers. For building local farmers’ confidence, excursion to other farms for more sustainable agricultural experience or sustainable farming practices in Thailand or Cambodia provided farmers with more ideas to improve their practices. It was effective to deepen perception for local farmers.

The activities of RCE Greater Phnom Penh are in line with the global aspiration of sustainable production and consumption embracing the pillars of sustainability-economic, environmental and social. Therefore, ESD is the most important key word of sustainable development not only for economic benefit, but also environment development. We believe the mainstream of RCE-GPP will contribute to social development. Through the activities, ESD is introduced in schools and the school curriculum integrates sustainable farming and ESD. Accordingly, the activities of RCG Greater Phnom Penh are contributing to green growth, sustainable production, and sustainable consumption, to achieve global sustainable development.

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