Japan-ASEAN Science, Technology and Innovation Platform (JASTIP)
Report of JASTIP-Net Activity

Date: / /

1. Research partner	Affiliated Organization	
	Name	Dr.Chatchawan Chaichana
	Affiliation	Energy Technology for Environment Research Center, Faculty of Engineering, Chiang Mai University
	Position	Head
	Address	239 Huay Kaew Road, Muang District, Chiang Mai, Thailand, 50200
2. Collaborative research	Collaborative research theme	**Headquarters** ☐ To Develop Operational Linkages and Human Resources among Academic Sector, Government Agencies, and Private Sectors in ASEAN countries and Japan. ☐ To Introduce Various STI Collaborations for Effectively and Efficiently into the Society based on the three joint laboratories' activities. **Energy & Environment Joint Lab** ☑ Studies on Rural/Community Renewable Energy. ☐ Development of Renewable Energy Technology adapted to the ASEAN region. ☐ Studies on Energy Policy/Security in the ASEAN region. **Bioresources & Biodiversity Lab** ☐ Studies on Biodiversity in the ASEAN Region Contributing to the Improvement of Identification, Collection and/or Information. ☐ Sustainable Utilization of Bioresources for Biorefinery, Bioremediation, Wood Construction, Food or Medicine. ☐ Plant Improvement for Agroforestry Systems and Carbon

		Sequestration Contributing to the Mitigation of and/or Adaptation to Climate Change. **Disaster Prevention Joint Lab** ☐ Innovative Ideas on Disaster Prevention, Mitigation and Recovery Technologies and Policies Peculiar to Each ASEAN Country. ☐ How to Cope with Trans-Boundary Disasters in the ASEAN Region Such as Tsunami, Flood, Drought and Haze. ☐ Understanding and Quantitative Evaluation of Disaster Risks Peculiar to ASEAN Countries.
	Collaborative research title	Community Renewable Energy Implementation in Thailand
	Host core-researcher	Dr.Keiichi Ishihara

3. Members

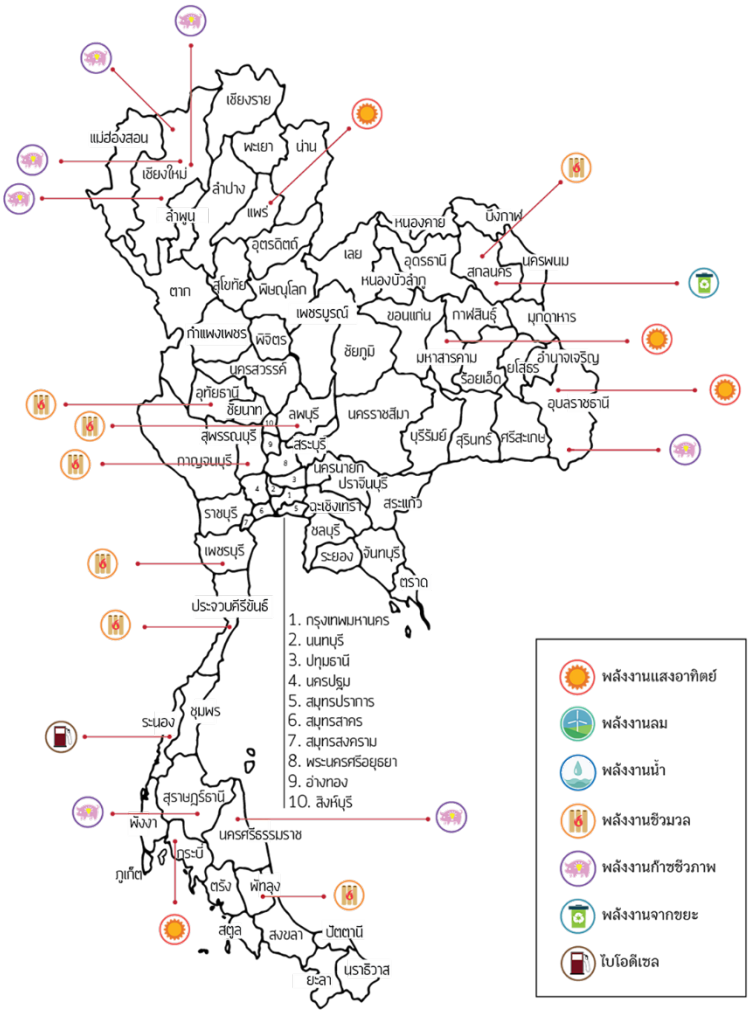
Name	Wongkot Wongsapai		
Affiliation	Faculty of Engineering, Chiang Mai University	Position	Asst.Prof.
Name	Nilubon Luangchosiri		
Affiliation	Graduate School of Energy Science, Kyoto University	Position	Ph.D candidate

4. Report of activities

Please describe 1) research activities and major findings and 2) their academic and social implications toward achieving the SDGs within 2 pages. You can include tables, figures and photos if necessary.

1) research activities and major findings

Data collection was carried out during January-February 2017. There were 20 communities in Thailand interviewed (See below figure). These communities are those who wished to apply for supporting program provided by the Ministry of Energy of Thailand but their applications were not successfully approved. Some of the applications were withdrawn. This research aimed to identify factors for the unsuccessfulness of these communities.



There are important factors depending stages of project implementation. It was found that owning renewable energy resources and using mature RE technologies are the most important technical factors during the starting a project. Then, community cooperation and project budgeting are also important during project development stage. Lastly, good project management is important for project execution stage.

2) their academic and social implications toward achieving the SDGs

Community Renewable Energy Project can support communities in 2 ways i.e. reducing expenses or increasing incomes. The benefits from CRE projects can directly contribute to communities' sustainable development.

Therefore, it is very important to support communities to develop their own CRE projects. Related government agencies can use the identifying factors to develop appropriate supporting schemes for Community Renewable Energy projects.

5. List of publications

Example of description: Navaporn Kaerkitcha, Surawut Chuangchote and Takashi Sagawa, "Control of physical properties of carbon nanofibers obtained from coaxial electrospinning of PMMA and PAN with adjustable inner/outer nozzle-ends," Nanoscale Research Letters, 11(1), 1-9, 2016

6. List of oral presentations

Example of description: Worasuwannarak N, Wannapeera J, Jadsadajerm S, and Miura K. Upgrading of rice straw and leucaena by degradative solvent extraction using 1-methylnaphthalene and kerosene at 350 oC. The 21st International Symposium on Analytical and Applied Pyrolysis, Nancy, France, 9-12 May 2016.

Chatchawan Chaichana, Wongkot Wongsapai, Det Damrongsak, Keiichi N. Ishihara , Nilubon Luangchosiri, “Promoting Community Renewable Energy as a tool for Sustainable Development in Rural Areas of Thailand”, 2017 4th International Conference on Power and Energy Systems Engineering, CPESE 2017, 25-29 September 2017, Berlin, Germany.