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# Community Renewable Energy Implementation in Thailand

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# Introduction



During 2013-2016, the Ministry of Energy of Thailand and Chiang Mai University supported 26 communities to establish community-scale RE projects.

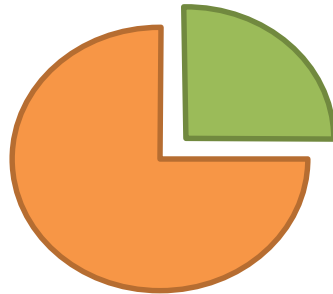
Community-scale RE projects = RE Projects that are own and operated by community. Community may partially or fully invested in the projects. Local resources must be used in the projects. Benefits from the projects are shared among the members via previously agreed statements.

Community RE project implementation is significant for **de-centralized energy production and utilization**. The community renewable energy projects typically use local resources for energy production. The energy produced is then used locally. In this way, the community becomes **less dependent to imported energy**. The community can be self-sufficient in terms of energy. In addition, **local economy could be improved** in cases that some RE projects might provide income to community members. This is very significant to achieve Sustainable Development Goals (SDGs).



# Concept and procedures

Support  
from  
Ministry of  
Energy



Community  
capital

All successful applicants must be legal institution in Thailand such as Foundations, Cooperatives, Municipalities, Farmer group, SME.

0. Ministry of Energy releases Call for Proposal (285)

1. Community consults  
with CMU

4. Community submits proposal  
to Ministry of Energy (49)

7. Community starts  
construction

2. CMU helps with  
preliminary assessment

5. Ministry of Energy approves  
the proposal

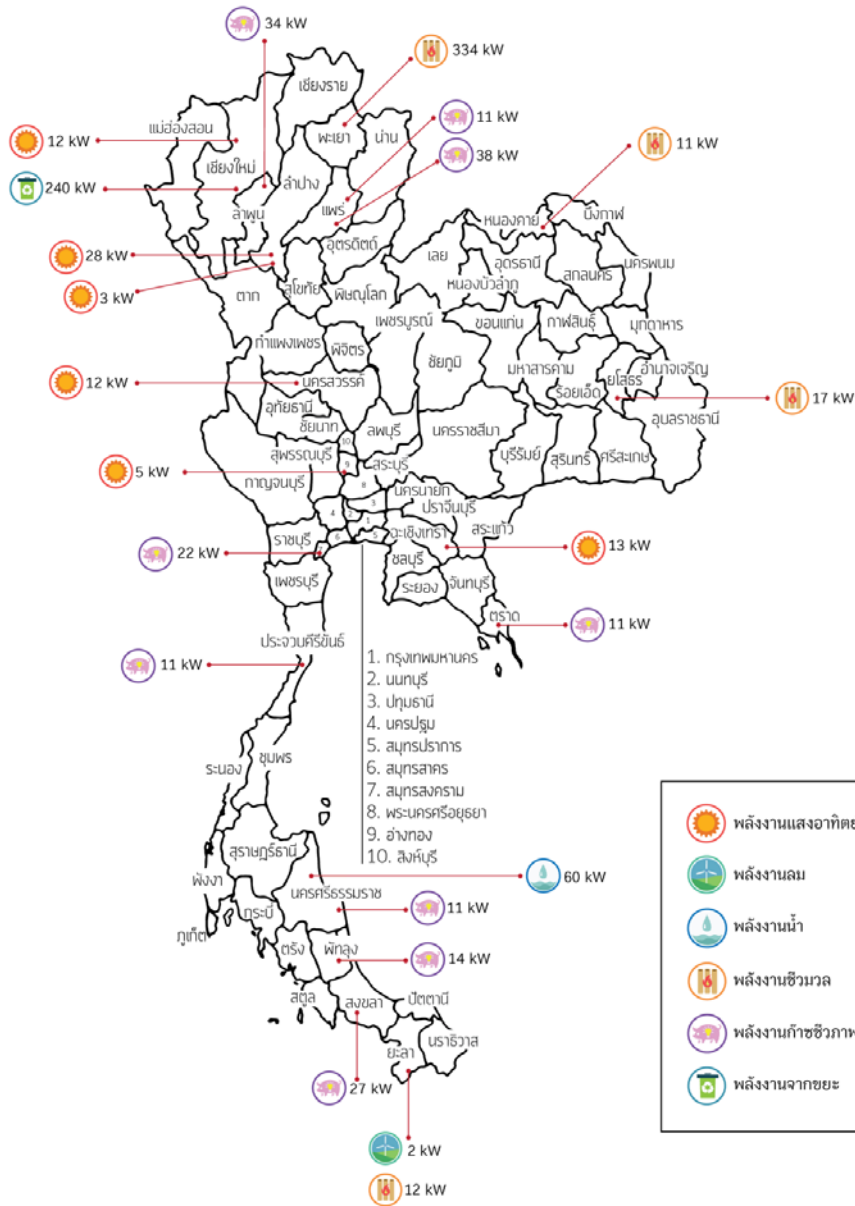
8. Community submits report  
after 1 month test run

3. CMU helps with  
drafting proposal

6. Ministry of Energy and  
community sign agreement

9. Ministry of Energy transfer  
budget to community (26)

Figures in bracket are number of community.



RE type	No. of project
Solar thermal	7
Wind	1
Hydro	3
Biomass	3
Biogas	10
Waste	2
<b>Total</b>	<b>26</b>

สนับสนุนโดย



กองอนุรักษ์สิ่งแวดล้อม  
ทรัพยากรธรรมชาติและพลังงาน

ดำเนินงานโดย



สำนักงานนโยบายและยุทธศาสตร์  
สำนักงานปลัดกระทรวงพลังงาน

บริหารงานโดย



ศูนย์วิจัยเทคโนโลยี  
พลังงานเพื่อสิ่งแวดล้อม

# Introduction

## Example of successful RE projects



### Stevia leaf drying in Northern of Thailand

Community member get together to construct solar drying facility in order to improve product quality. Previously, the community use biomass (from nearby forest area) for drying. Stevia dried leaf is used for sugar substitution. Market value is high. Thus, the community do not need large land area for plantation.



### Pico-Hydro Power Project in Southern of Thailand

The community developed their own version of hydro turbine, with help from local university. Community grows Mangosteen in reserved forest area. No electricity from the grid is allowed in the area. Hydro power is a mean for providing electricity and in the same time encourage community to preserve the forest.

# Key success factors

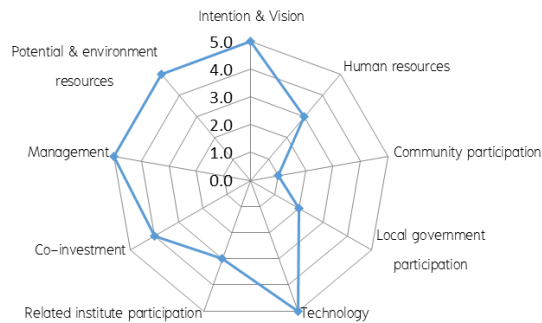


Data gathered from 9 successful communities during “Community Renewable Energy Workshop” in Chiang Mai on October 24-25, 2016. Funded by the Toyota Foundation

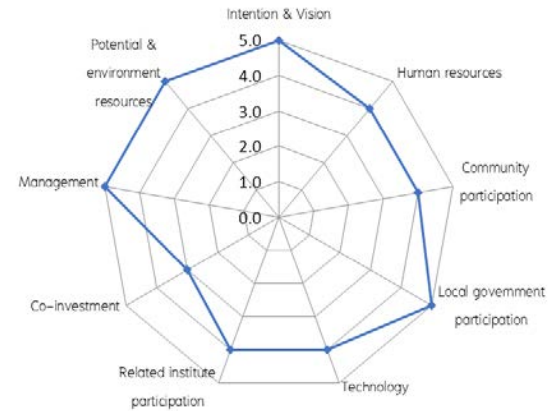


# Different stakeholder ideas

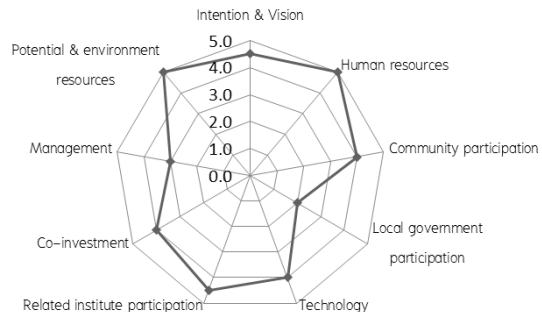
Co-op



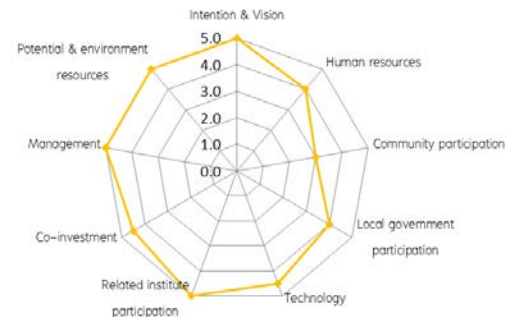
Farmer group



SME



Foundation



Data gathered from 26 successful communities in December 2016

# Purposed of the study

Although there are 26 communities successfully establish community-scale RE projects, there are more than 100 communities unsuccessful.

This research will investigate **factors that communities could not proceed to meet the Ministry of Energy of Thailand criteria.** **Recommendations** for both the communities and the Ministry of Energy **will be made** in order to increase the number of community RE projects.

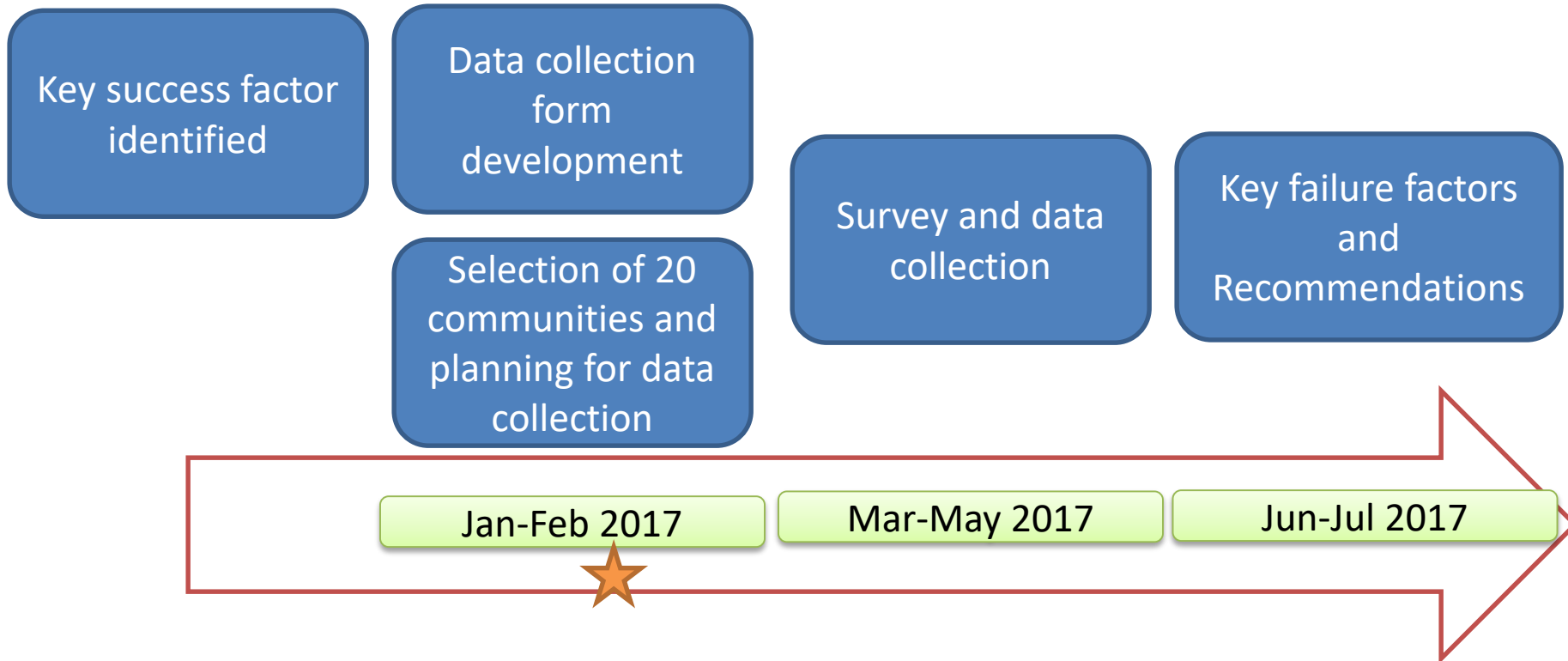
Unsuccessful cases  
Key failure factors



Recommendations



# Project plan





**THANK YOU**  
**ありがとうございました**  
**ขอบคุณครับ**

