



EIE-06-256 REEPRO

Intelligent Energy  Europe

# **Promotion of the Efficient Use of Renewable Energies in Developing Countries**

**REEPRO Level 3 Courses 11 and 12**

**Solar PV systems and Rocket stove construction**

**Laos, July 24<sup>th</sup>, 2009**

## **Authors**

Community Development and Environment Association (CDEA)

July 2009

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## 1 Summery Sheet

|                              |  |
|------------------------------|--|
| <b>Training:</b>             | <b>Training for community stakeholder</b>  |
| <b>Task Number:</b>          | 04.02.02   |
| <b>Date, Location, Time:</b> | <b>24.07.2009, 8:30CE12:00 and 13:00CE16:00 Nakhok village, Saravan District, Saravan Province</b>   |
| <b>Theme:</b>                | Introduction of Renewable Energy   |
| <b>Target group:</b>         | <input type="checkbox"/> Level 1<br><input type="checkbox"/> Level 2<br><input checked="" type="checkbox"/> Level 3  |
| <b>Performance:</b>          | 5 hours presentation (4 speakers) followed by a 15 minutes discussion. Presenters include with Dr. Khamphone, Mr. Seanglatry, Mr. Khampha and Mr. Bounthavy  |
| <b>Participants:</b>         | 22 participants, see attached list of participants   |
| <b>Short Description:</b>    | <p>This training have conducted in Nakhok village, which far from district centre about 6 km. The purpose of this training was to promote and raise awareness of stakeholders, community people to better understanding about the renewable energy. Dr. Khamphone, trainer had introduced general information about project and project partners. Then he introduced about the energies use and renewable energies that there were many different dimensions Bio-mass, PV, bio-fuel and others.</p> <p>Mr. Seanglatry, trainer had introduced on rocket stove construction included such materials as (1) principle of rocket stoves and its specific features compared to common wood stoves; (2) construction of rocket stoves; (3) rocket stove modifications for adaptation to real Lao conditions; (4) rocket stove production video and then practical exercises on brick making, firstly by trainees level 2 and then by level 3 trainees (village craftsmen and women)</p> <p>In the afternoon session, question-answer games were conducted: the asked questions mainly were about wood fuel use issues, stove efficiency, fuel saving, wood collecting, gender issues of wood use, etc. The right answers or the active villagers were awarded with REEPRO shirts or caps.</p> |

## 2 List of Participants


| Registration form ແບບຝຣນລົງທະບຽນ ສຳລັບຜູ້ເຂົ້າຮ່ວມ REEPRO Stakeholder |              |                             |                            |                   |                 |                         | Registration Form                        |                                     | ລະດັບ 3            |                        |                         |                |                 |
|---|--------------|-----------------------------|----------------------------|-------------------|-----------------|-------------------------|--|-------------------------------------|--------------------|------------------------|-------------------------|----------------|-----------------|
| ຊື່ ແລະ ນາມສະກຸນ<br>Name<br>and surname                               | ອາຊີບ<br>Job | ບ່ອນເຮັດວຽກ<br>Organization | ບ້ານຢູ່ປະຈຸບັນ<br>Resident | ເມືອງ<br>District | ຖະໜົນ<br>Street | ເບີໂທ<br>Tel and<br>Fax | ສິດສິນຄ້າເພີ່ມເຕີມ/ໃຈ<br>Interest topics |                                     |                    |                        |                         | ຊື່ບັນ<br>Sign |                 |
|   |              |                             |                            |                   |                 |                         | ໄປ້ແລະວາເວັນ PV                          | ໄປ້ແລະເຮັດ Biomass                  | ແລະວັດຖຸກຳລັງ Wind | ຜູ້ເຊື່ອມູນ Fertilizer | ແລະວັດຖຸກຳລັງເຮືອນ Cool |                | ໄປ້ແລະ Bio fuel |
| 1 ທ. ແກ້ວ   | 13/12/11     |                             | ບາງກອກ                     | ບາງກອກ            |                 | 9834566                 | <input checked="" type="checkbox"/>      | <input checked="" type="checkbox"/> |                    |                        |                         |                | 11/12           |
| 2 ທ. ພິມະວິໄນ   | 9/12         |                             | ບາງກອກ                     | ບາງກອກ            |                 |                         | <input checked="" type="checkbox"/>      | <input checked="" type="checkbox"/> |                    |                        |                         |                | 11/12           |
| 3 ທ. ພິມະວິໄນ   | 9/12         |                             | ບາງກອກ                     | ບາງກອກ            |                 |                         | <input checked="" type="checkbox"/>      | <input checked="" type="checkbox"/> |                    |                        |                         |                | 11/12           |
| 4 ທ. ພິມະວິໄນ   | 9/12         |                             | ບາງກອກ                     | ບາງກອກ            |                 | 6267684                 | <input checked="" type="checkbox"/>      |                                     |                    |                        |                         |                | 11/12           |
| 5 ທ. ພິມະວິໄນ   | 9/12         |                             | ບາງກອກ                     | ບາງກອກ            |                 | 5434093                 | <input checked="" type="checkbox"/>      |                                     |                    |                        |                         |                | 11/12           |
| 6 ທ. ພິມະວິໄນ   | 9/12         |                             | ບາງກອກ                     | ບາງກອກ            |                 | 9287597                 | <input checked="" type="checkbox"/>      | <input checked="" type="checkbox"/> |                    |                        |                         |                | 11/12           |
| 7 ທ. ພິມະວິໄນ   | 9/12         |                             | ບາງກອກ                     | ບາງກອກ            |                 |                         | <input checked="" type="checkbox"/>      | <input checked="" type="checkbox"/> |                    |                        |                         |                | 11/12           |
| 8 ທ. ພິມະວິໄນ   | 9/12         |                             | ບາງກອກ                     | ບາງກອກ            |                 | 6847335                 | <input checked="" type="checkbox"/>      |                                     |                    |                        |                         |                | 11/12           |
| 9 ທ. ພິມະວິໄນ   | 9/12         |                             | ບາງກອກ                     | ບາງກອກ            |                 |                         | <input checked="" type="checkbox"/>      | <input checked="" type="checkbox"/> |                    |                        |                         |                | 11/12           |
| 10 ທ. ພິມະວິໄນ  | 9/12         |                             | ບາງກອກ                     | ບາງກອກ            |                 |                         | <input checked="" type="checkbox"/>      | <input checked="" type="checkbox"/> |                    |                        |                         |                | 11/12           |
| 11 ທ. ພິມະວິໄນ  | 9/12         |                             | ບາງກອກ                     | ບາງກອກ            |                 | 5071958                 | <input checked="" type="checkbox"/>      | <input checked="" type="checkbox"/> |                    |                        |                         |                | 11/12           |
| 12 ທ. ພິມະວິໄນ  | 9/12         |                             | ບາງກອກ                     | ບາງກອກ            |                 |                         | <input checked="" type="checkbox"/>      | <input checked="" type="checkbox"/> |                    |                        |                         |                | 11/12           |
| 13 ທ. ພິມະວິໄນ  | 9/12         |                             | ບາງກອກ                     | ບາງກອກ            |                 |                         | <input checked="" type="checkbox"/>      | <input checked="" type="checkbox"/> |                    |                        |                         |                | 11/12           |

Registration Form

|    |         |        |        |     |  |  |    |   |   |  |  |  |  |  |  |  |  |  |  |     |
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| 14 | ਮ. ਸਿੰਘ | 150221 | ਮਾ/22  | ੩/੦ |  |  | X  | X |   |  |  |  |  |  |  |  |  |  |  | ੩੦  |
| 15 | ਭਾ. ਭਾ. | 150221 | ਮਾ/199 | ੪   |  |  | X  |   | X |  |  |  |  |  |  |  |  |  |  | ੧੦੫ |
| 16 | ਭਾ. ਭਾ. | 150221 | ਮਾ/199 | ੩/੦ |  |  | X  |   |   |  |  |  |  |  |  |  |  |  |  | ੧੦੫ |
| 17 | ਭਾ. ਭਾ. | 150221 | ਮਾ/199 | ੪   |  |  | X  | X |   |  |  |  |  |  |  |  |  |  |  | ੧੦੫ |
| 18 | ਭਾ. ਭਾ. | 150221 | ਮਾ/199 | ੪   |  |  | ✓  | ✓ |   |  |  |  |  |  |  |  |  |  |  | ੧੦੫ |
| 19 | ਭਾ. ਭਾ. | 150221 | ਮਾ/199 | ੪   |  |  | X  |   | X |  |  |  |  |  |  |  |  |  |  | ੧੦੫ |
| 20 | ਭਾ. ਭਾ. | 150221 | ਮਾ/199 | ੪   |  |  | X  |   |   |  |  |  |  |  |  |  |  |  |  | ੧੦੫ |
| 21 | ਭਾ. ਭਾ. | 150221 | ਮਾ/199 | ੪   |  |  | 22 |   |   |  |  |  |  |  |  |  |  |  |  | ੧੦੫ |
| 22 | ਭਾ. ਭਾ. | ਮਾ/199 | ਮਾ/199 | ੪   |  |  | ✓  |   | ✓ |  |  |  |  |  |  |  |  |  |  | ੧੦੫ |
| 23 |         |        |        |     |  |  |    |   |   |  |  |  |  |  |  |  |  |  |  |     |
| 24 |         |        |        |     |  |  |    |   |   |  |  |  |  |  |  |  |  |  |  |     |
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| 29 |         |        |        |     |  |  |    |   |   |  |  |  |  |  |  |  |  |  |  |     |
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Registration Form

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ਸਹਿਮਤ  
  
ਸ਼੍ਰੀ. ਪੰਜ ਸਾਹਿਬ ਸਿੰਘ 24/7/09

### 3 Photo Documentation



Figure 1: Mr. Senglatry, trainer explaining about rocket stove



Figure 2: Mr. Khamphone, trainer introduced about PV



**Figure 3: Participants doing exercise on rocket stove**



**Figure 4: Participants doing exercise on rocket stove**



**Figure 5: REEPRO project had distributed T- Shirts for participants**

#### **4 Presentations**

- PV systems' presentations:
  - What is PV system?
  - Fundamental of electricity and energy consumption review;
  - PV system components;
  - PV system maintenance and troubleshooting;
- Rocket systems:
  - Biomass and its conversion technologies
  - Rocket stove principle
  - Rocket stove construction (video)