FINAL PRESENTATION FOR GSGES SHORT TERM EXCHANGE PROGRAM – Kyoto University

- Name: Proeung SomOn
- Country: Cambodia
- Duration in Kyoto: 06 Months (4April-Sept,2014)
- Affiliation in Kyoto University: Environmental Education Laboratory of Graduate School of Global Environmental Studies (GSGES)
- Supervisor in Cambodia: Dr. HENG ChanThoeun
  Mr. Sou Socheat
- Supervisor in Kyoto: Prof. Rajib Shaw

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Current study in Cambodia

- **Major**: Integrated Management for Agriculture and Rural Development (IMARD) at RUA.
- **Study Topic**: Natural Disaster Risk Management for Floating Community in Tonle Sap Lake
- **Study Area**: Phatsanday Commune, Kampong Svay District, Kampong Thom Province

**Objectives:**
1. Characterizing natural hazard and disaster that has been occurred in community.
2. Understanding the impact on livelihood of local people after disaster/hazard.
3. Understanding local knowledge related to disaster/hazard management and resilience.

**Study plan at GSGES - Kyoto university**

<table>
<thead>
<tr>
<th>Activities</th>
<th>Month</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>April</td>
</tr>
<tr>
<td>Lecture Courses: 3104, 3103, 4515 &amp; 4501</td>
<td>x</td>
</tr>
<tr>
<td>Optional courses: 3235, 3259 &amp; 6279</td>
<td></td>
</tr>
<tr>
<td>Seminars</td>
<td>EEL/Welcome seminar</td>
</tr>
<tr>
<td>Literature survey &amp; Questionnaire development</td>
<td></td>
</tr>
<tr>
<td>Field Visit</td>
<td></td>
</tr>
<tr>
<td>Final presentation</td>
<td></td>
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</table>
Literature Review

- Cambodia is classified as a less developed country and vulnerable to climate change and natural disaster. The protracted civil war in the country and lack of developed infrastructure made the country become a vulnerability by global climate change and disaster, especially floods and drought.

- In 2002 drought was affected to 2 million people and damaged 100,000 ha of paddy fields in several provinces such as Prey Veng, Battambang, Kandal, Kampong Cham, Kampong Speu, Pursat and Takeo (SCR.2010).

- WorldBank et al 2011 estimates that floods kill 100 people annually, cause agriculture losses of US$100-170 million each year, and affect critical infrastructure along the floodplain.

- In 2013, NCDM reported that 20 out of 24 provinces in the country have been affected by flood, which has resulted in the death of 160. Some 1.7 million people have been affected and 27,185 families were forced to evacuate to safety areas. In addition, nearly 297,600 hectares of rice field have been inundated. More than 28,100 hectares of rice have already been damaged, depriving the farmers of the much-needed income to support their families (www.kh.undp.org).

Document reviews

2. Mikio Isahiwatari(2012), Government Roles in Community Based Disaster Risk Reduction. Community Based Disaster Risk Reduction. Volume 10,19-33 page
4. SCR.2010. Mapping of Climate change Adaptation and Disaster Risk Management related Governance.
5. Takako Izumi and Rajib Shaw(2012) Role of NGOs in Community Based Disaster Risk Reduction. Community Based Disaster Risk Reduction. Volume 10,35-53 page
6. Umma Habiba&Rajib Shaw(2012), Bangladesh Experiences of community Based Disaster Risk Reduction. Volum10, Pages 91-111.
The Main Natural Hazards Occur in Cambodia

Flood, storm and epidemic is the main disaster occurred to the flooding community

Sources: NCDM, 2008 & SCR, 2010

Natural hazard Data, 1996-2013

<table>
<thead>
<tr>
<th>Event</th>
<th>DataCards</th>
<th>Deaths</th>
<th>Injured</th>
<th>Missing</th>
<th>Houses Destroyed</th>
<th>Houses Damaged</th>
<th>Victims</th>
<th>Affected</th>
<th>Relocated</th>
<th>Evacuated</th>
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<tbody>
<tr>
<td>Drought</td>
<td>1172</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2500727</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Epidemic</td>
<td>56</td>
<td>37</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>19</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fire</td>
<td>1447</td>
<td>102</td>
<td>59</td>
<td>0</td>
<td>3690</td>
<td>358</td>
<td>22055</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Flood</td>
<td>3319</td>
<td>1091</td>
<td>788</td>
<td>0</td>
<td>2242</td>
<td>19176</td>
<td>1182788</td>
<td>0</td>
<td>16988</td>
<td>598545</td>
</tr>
<tr>
<td>Lightning</td>
<td>582</td>
<td>752</td>
<td>299</td>
<td>0</td>
<td>24</td>
<td>19</td>
<td>2237</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pest Outbreak</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2378</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>River Bank</td>
<td>43</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>67</td>
<td>448</td>
<td>1150</td>
<td>0</td>
<td>228</td>
<td>36</td>
</tr>
<tr>
<td>Storm</td>
<td>1194</td>
<td>77</td>
<td>378</td>
<td>2</td>
<td>9452</td>
<td>19797</td>
<td>111288</td>
<td>0</td>
<td>0</td>
<td>3111</td>
</tr>
<tr>
<td>TOTAL</td>
<td>7913</td>
<td>2062</td>
<td>1526</td>
<td>2</td>
<td>15475</td>
<td>39798</td>
<td>1446736</td>
<td>0</td>
<td>17216</td>
<td>601692</td>
</tr>
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Source: NCDM: http://camdi.ncdm.gov.kh
DRM Coordination Mechanism


CBDRM Conceptualize Framework for Floating community
Study Outcomes

<table>
<thead>
<tr>
<th>No</th>
<th>Courses Description</th>
<th>Timeline</th>
<th>Credits</th>
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<tbody>
<tr>
<td>1</td>
<td>3104: Environmental Ethics and Environmental Education</td>
<td>April-July</td>
<td>2 credits</td>
</tr>
<tr>
<td>2</td>
<td>4515: Integrated Watershed and Coastal Management</td>
<td>April-July</td>
<td>2 credits</td>
</tr>
<tr>
<td>3</td>
<td>4501: Environmental Leadership A</td>
<td>April-June</td>
<td>2 credits</td>
</tr>
<tr>
<td>4</td>
<td>3103: Management of Global Resource and Ecosystems</td>
<td>April-July</td>
<td>2 credits</td>
</tr>
<tr>
<td>5</td>
<td>3235: Management International Environmental and Disaster Management</td>
<td>April-June</td>
<td>1 credit</td>
</tr>
<tr>
<td>6</td>
<td>3259: Environmental Communication Studies</td>
<td>June-July</td>
<td>1 credit</td>
</tr>
<tr>
<td>7</td>
<td>6279: Community Development and Environment</td>
<td>June-July</td>
<td>1 credit</td>
</tr>
<tr>
<td>8</td>
<td>3601: Information Processing for Environmental</td>
<td>April-July</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Activities in the Laboratory

<table>
<thead>
<tr>
<th>Date</th>
<th>Group Seminar</th>
<th>Topic</th>
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<tbody>
<tr>
<td>25th April</td>
<td>Welcome seminar</td>
<td>N/A</td>
</tr>
<tr>
<td>14th May</td>
<td>Questionnaire seminar</td>
<td>How to design the questionnaire and analyze data</td>
</tr>
<tr>
<td>19th May</td>
<td>EEL/CCA group seminar</td>
<td>Role of Microfinance to enhance Food security of rural poor Women in Bangladesh.</td>
</tr>
<tr>
<td>21st May</td>
<td>Paper writing seminar</td>
<td>Academic Writing paper</td>
</tr>
<tr>
<td>30th June</td>
<td>EEL/Education group seminar</td>
<td>Usefulness of sustainability Literacy</td>
</tr>
<tr>
<td>29th July</td>
<td>EEL/Urban group seminar</td>
<td>How does Urbanization affect the food security in Asia</td>
</tr>
<tr>
<td>30th July</td>
<td>Final presentation of Atta-Ur-Rahman, post Doctoral</td>
<td>Flood Potentials in the Hindu Kush of Pakistan</td>
</tr>
<tr>
<td>19th, April 09th June 1st July</td>
<td>Special seminar by guest speakers(SEED’s staff, Prof.Krishnamurthy, Prof.Michiko Banba)</td>
<td>1) SEED: Natural Disaster Risk Reduction, 2) Impact of community college toward Enhancing the Resilience of Disaster Prone Coastal Communities, 3) How can land use management/planning be used for disaster risk reduction</td>
</tr>
</tbody>
</table>
| Regular time   | Other activities                        | • Researching documents  
• Develop the research proposal and questionnaires  
• Doing Assignments  
• Meeting and consultation with supervisor and lab mates |

Field activities

21 - 22 June, 14: Attend the field trip to Wakayama with 26 participants including 8 high school students and 2 teachers. To learn about the agricultural sector in Japan and value of plum chain.

Ume Value Chain

Harvesting → Sizing and packaging → Processing → Final Product at Market → Fresh plum direct to Market
Field activities

• Japanese government have good policy for promoting agriculture sector.
• Agricultural production more profitable in Japan.
• Government provide subsidy to the farmer to improve the agriculture facility.
• Japanese farmer have strong skill and knowledge on agriculture.

14 June, 2014: Personal trip to Kobe Disaster Reduction and Human Renovation Institution, to learn more about the mega earthquake that occurred in Kobe area and how the people and government to build resilience after disaster.

Lesson learnt from past experiences
Visitor can understand more through online documentary.
All of destroyed photos and video were compiled and showing to the visitor.

Study outcomes and Lessons learned

• More understanding about the natural disaster concept and principle (disaster preparedness, mitigation and resilience)
• More understanding about the CCA and REDD+ concept.
• Understand more about the watershed and coastal management, especially marine ecosystem.
• Learning the method which professors use to encourage the students to involve in working group and initiative project relating with university or society.
• Improved more skill on paper academic writing and questionnaires development.
• Laboratory activity is the main part of learning process in Kyoto university.

• Traffic and transportation: most of student in university use the bike and public transportation like bus and railway.
• Law: People strongly respect the rule or law
• Business: I have clear idea on business operation such as agriculture (Food processing and packaging) and entertainment.
• Environmental and waste management: good standard of garbage collection and management.
• Study program: Course designation and teaching methodology are very interesting.
• Culture and religion: environment and biodiversity play a vital role.
Acknowledgement

- Thank you **Prof. Shigeo FUJII**, Coordinator, “Southeast Asian Studies for Sustainable Humanosphere” GSGES Short-term Scholarship Program and Dean, Graduate School of Global Environmental Studies, Kyoto University

- Thank you **Prof. Rajib SHAW**, Professor of Environmental Education laboratory and all lab professors and friends.

- Thank you **Dr. Gaku MASUDA** and all professors in GSGES.

Thank for your Attention

References

5. Paula Nuoreva,et.al(2010).Water, Livelihood and climate change adaptation in the Tonle Sap Lake area,Cambodia:Learning for the past to understanding the future
6. PDR-South East Asia(2008) Community Based Risk Management in Cambodia,32Pages
12. Rajib Shaw(2012).Overview of Community Based Risk Reduction. Community Based Disaster Risk Reduction.Volume 10,3-17page