Background

The Vietnamese Mekong Delta has been negatively affected by climate change. To respond to this challenge, the Mekong delta’s agricultural structure has to always be turned into more adaptive forms. Amongst several livelihoods models that have been suggested by some studies, Flood-Based Farming system (FBFS) is considered as a typical adaptive livelihood option particularly in flood seasons.

This paper opted Dong Thap province - a lowland province located in upper Mekong delta as case study, to explore how local people perceive this FBFS, especially lotus-based farming that has been emerged as a potential alternative for agriculture in upper Mekong delta and analyze how the society has changed with engagement of this model.

Innovative livelihood model

Lotus-based farming includes: Intensive lotus, rice-lotus, fish-lotus and lotus ecotourism, is a good alternative livelihood in flood prone areas.

Main characteristics:
- High adaptability (can survive even with lack of or exceeding water)
- No need of seed for the next generation
- Low cost but high benefit

Results of cost-benefit analysis on lotus cultivation compared to rice cultivation (in the year 2014) (IUCN, 2015)

<table>
<thead>
<tr>
<th>Type</th>
<th>CBA</th>
<th>Income (in $US)</th>
<th>Profit (in $US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice crop 1</td>
<td>1,143</td>
<td>1,939</td>
<td>796</td>
</tr>
<tr>
<td>Rice crop 2</td>
<td>1,074</td>
<td>1,549</td>
<td>475</td>
</tr>
<tr>
<td>Rice crop 3</td>
<td>1,138</td>
<td>1,609</td>
<td>471</td>
</tr>
<tr>
<td>Lotus cultivation</td>
<td>800</td>
<td>2,300</td>
<td>1,500</td>
</tr>
</tbody>
</table>

Results of qualitative analysis

The application of lotus-based farming at the research site started from 2001 and have made a positive societal change and local lives. 80% of respondents agree and have the desire to maintain and replicate lotus farming for their livelihoods.

Discussion and conclusion

- Benefits gained from lotus-based farming is 3 times higher than rice (especially triple-rice crops), meanwhile the cost is much lower.
- Lotus cultivation also limits environmental pollution and keeps ecological balance.
- The biggest difficulty to maintain this model is the uncertainty of market and labor forces.
- 80% of people agree and have the desire to maintain and replicate lotus farming for their livelihoods due to the positive societal changes.

Main Reference