Lessons Learned from the Seed Park in Stone Village, Yunnan, China

By

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Seed Park in the Stone Village

• Naxi people’s early settlement and spiritual homeland
• Sitting on a rocky mountain overlooking Yangtze river
• Home of 220 Naxi families from 6 natural villages
• A biodiversity hotspot, with over staple 20 food crops and about 180 native varieties

With a history of 1400 years of terrace farming
• 3 Parallel Rivers of Yunnan Protected Areas, World Heritage, 
• Tea & Horse Road……..

- located within Tibetan plateau, bordering with Tibet, Sichuan..

- Up stream of Asia’s major Rivers supporting 1.4 billion people down stream

- biodiversity hotspot…

- rich cultures, over 32 ethnic people….
Tibetan Plateau is Facing massive “ecosystem shift” and changes ….. Researched by By Xu Jianchu, Ed Grumbine, etc, reported by Beth Walker ….

- Warming 3 time faster than World Average …
- Cold crops and forest moving up
- Biodiversity is disappearing
- Ethnic cultures are vanishing
- Climate Change and over economic grazing are continue …
- Uncertainty modeling the future, most scientific work based on global models of CC and downscaled to regional and sub-regional…
As IPCC Africa Country case since 2011……
**IPCCA Finding:** climate change affected all the 6 communities i.e. big drought, extreme weather, increasing pest...

### Farmers' Observation of Climate Change during 2002-2012

<table>
<thead>
<tr>
<th>Phenomenon</th>
<th>GX (%)</th>
<th>YN (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unusual Rain fall</td>
<td>70.1</td>
<td>61.8</td>
</tr>
<tr>
<td>temperature (summer/winter)</td>
<td>78.7</td>
<td>28.5</td>
</tr>
<tr>
<td>Wind strength</td>
<td>12.2</td>
<td>13.0</td>
</tr>
<tr>
<td>Sun shine</td>
<td>23.1</td>
<td>2.4</td>
</tr>
<tr>
<td>River water flow</td>
<td>34.4</td>
<td>17.9</td>
</tr>
<tr>
<td><strong>Drought</strong></td>
<td>37.1</td>
<td>80.5</td>
</tr>
<tr>
<td><strong>Flood</strong></td>
<td>22.6</td>
<td>13.8</td>
</tr>
<tr>
<td><strong>Insects/Pests</strong></td>
<td>69.2</td>
<td>39.0</td>
</tr>
<tr>
<td>Diseases (animal &amp; crop)</td>
<td>40.3</td>
<td>12.2</td>
</tr>
<tr>
<td><strong>Extreme whether</strong></td>
<td>5.9</td>
<td>6.5</td>
</tr>
<tr>
<td>Mud-rock flow</td>
<td>0.9</td>
<td>*</td>
</tr>
</tbody>
</table>
IPCCA Finding: Biodiversity is decreasing rapidly, losing related TK and Traditional culture, values.

- 50 native varieties despaired in the last 10 years, including 13 rice, 10 maize, 6 beans etc, e.g. traditional crops is despairing e.g. high land barley, sorghum, oak etc

Reasons for losing: hybrids, low productivity, labor etc

For keeping: drought resistance, quality, culture needs, emotional & spiritual needs ……
PPB as local adaptive innovation process for climate changes

PPB improved Landraces, Tolerant to drought and low nitrogen with little fertilizer and labor

Hybrid Variety, 杂交种
Seed Sovereignty for Food Sovereignty and Adaptation
Encouraging and reconstruction of Traditional values and culture

--Enhancing collective spirit, capacity through supporting local economic and culture activities..... association and cooperatives
Dec 2013, involving 22 rural communities,
4 public Agriculture R Org (CAAS, CAS),
2 Universities, NGOs, TWN, MOA, MOE,

-Farmer seed exchange, seed Production, PVS, PPB..

-3 Suggestions for “seed law” Revision to protec Farmers’ rights, 1 accepted by PC,

- Presented in CBD cop 12

-first news letter, Nov, 15, 2014
IPCCA linking to Ecosystem-based adaptation (EbA) projects for joint actions and informing policies

**Community level**: IPCCA and MCI networks, Seed park in stone village, farmer seed network in China,

**Provincial/regional level**: National and regional CCA strategy and Plan via CAS partners in Yunnan, CSA Tibetan Institute, Botanic Research Institute

**National/international Level**: Working with UNEP office in CAS on Climate Change using EbA in China through Dr. Linxiu Zhang (CCAP), Dr. Jian Liu (UNEP), and TWN In other neighboring Asian countries.