Participatory Prospective Analysis (PPA):
Scenario building approach for improving, exploring and anticipating challenges in complex multi-stakeholders systems
Bayuni Shantiko & Nining Liswanti
Outline

- Overview of PPA method
- Case study
- Lessons learnt
- Challenges
- Implications
Participatory Prospective Analysis

An applied foresighting approach developed by CIRAD
Principles of PPA

- **Sources:**
  - The knowledge of actors and “experts”
  - Existing documents and data

- **Forms of interaction:**
  - Group work based on “Expert meeting”

- **Methods:**
  - Qualitative data
  - Quantitative analysis when possible
The 8 steps of PPA

1. Define the limits of the system

2. Identify the variables

3. Define the variables

4. Analyze their mutual influences

5. Identify and select the key variables

6. Define the states of the variables

7. Build up scenarios

8. Implications of the scenarios and related actions
PPA APPLICATION

Case study in Indonesia (Kalimantan & Maluku)

31,000 km²
208,000 inhabitants

7,700 km²
175,000 inhabitants
Forestry and Land use planning issues in Indonesia

- Overlapping authorities (central vs district), ambiguous regulations
- Lack of coordination within sectors in spatial planning; development vs conservation
- Driven by large scale business and political agenda
- Lack of community participation that caused of tenurial conflict (Status of State owned land vs Customary land; local people vs investor/concession holder;
- Lack consideration of Ecosystem Services in the process (Ecosystem based LUP, Ecosystem Based Adaptation)
Objective

- What approach can allow multiple needs of land taken into account in land use decision making?

Organizing PPA

- Develop facilitator team
- Identification of stakeholders and Steering Committee
- 15-22 stakeholders: district government, parliament, NP, local community, customary leaders, private sector, NGOs, and universities
- Three series of “expert” group meeting
Q: What could be the future of land use?

Time: 20 years

Geographic boundary:

- Kapuas Hulu regency
- Central Maluku regency
Identification of Variables (2,3)

- Economic, social, politic, environment
- For example:
  - Customary law
  - Education
  - Income

<table>
<thead>
<tr>
<th>No</th>
<th>Nick name</th>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>KOORD</td>
<td>COORDINATION AMONG SECTORS</td>
<td>The pattern of work among sectors (Dinas), in accordance with the duties and functions</td>
</tr>
<tr>
<td>2</td>
<td>POLAPIKIR</td>
<td>MINDSET / PARADIGM</td>
<td>Perspective in viewing and analyzing the problem</td>
</tr>
<tr>
<td>3</td>
<td>HKADAT</td>
<td>ADAT LAW</td>
<td>Recognition and law enforcement within adat community and outsiders who go inside the area's territory</td>
</tr>
<tr>
<td>4</td>
<td>MURID</td>
<td>NUMBER OF STUDENTS</td>
<td>Number of children at school who attend the school</td>
</tr>
<tr>
<td>5</td>
<td>PENDPATAN</td>
<td>INCOME</td>
<td>Community income earned within a period of time</td>
</tr>
<tr>
<td>6</td>
<td>KESKATAN</td>
<td>LEVEL OF COMMUNITY HEALTH</td>
<td>Level of community health</td>
</tr>
<tr>
<td>7</td>
<td>AKSEHAT</td>
<td>COMMUNITY HEALTH ACCESS</td>
<td>Availability of facilities and health workers in serving the needs of public health</td>
</tr>
<tr>
<td>8</td>
<td>PENDIDIKAN</td>
<td>EDUCATION LEVEL</td>
<td>Average level of education attained by the community</td>
</tr>
<tr>
<td>9</td>
<td>KOMAPEM</td>
<td>COMPETENCY OF GOVERNMENT OFFICIALS</td>
<td>Ability of the officers in the implementation of governance public service</td>
</tr>
</tbody>
</table>
### Influence/Dependence Analysis (4)

#### Note

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>COORDINATION</th>
<th>MINDSET / PARADIGM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>COORDINATION AMONG SECTORS</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>MINDSET / PARADIGM</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>ADAT LAW</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>NUMBER OF STUDENTS</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>INCOME</td>
<td>-</td>
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</tr>
<tr>
<td>6</td>
<td>LEVEL OF COMMUNITY HEALTH</td>
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<td>7</td>
<td>COMMUNITY HEALTH ACCESS</td>
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<td>8</td>
<td>EDUCATION LEVEL</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td>COMPETENCY OF GOVERNMENT OFFICIAL</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>DEVELOPMENT POLICY</td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Variables’ Influence

- 50 INTERNAL VARIABLES
Influence/Dependence Analysis

- Direct influence variable $i$ to variable $j$;
- Direct influence $= 1$; No influence $= 0$
- Indirect influence ($i \rightarrow k$):

\[
\text{RTI}_{A,C} = M_{A,A} \cdot M_{A,C} + M_{A,B} \cdot M_{B,C} + M_{A,C} \cdot M_{C,C}
\]

Result: Indirect influence table
(5) **Key drivers:** Government policy, use of technology, customary law and wisdom, mindset, participation, education and skills
### Building Scenarios (6,7)

<table>
<thead>
<tr>
<th>No</th>
<th>Key variables</th>
<th>Similar variables</th>
<th>States</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>1</td>
<td>Community Participation</td>
<td>Community involved in planning, implementing, and monitoring of land use in a transparent system.</td>
<td>Top-Down approach in planning and land management (community, as the executor).</td>
</tr>
<tr>
<td></td>
<td>Legality</td>
<td>Customary Land Tenure</td>
<td>Customary rights and local wisdom are arranged in local legislation, and are implemented.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Local Wisdom</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Petuanan Customs Rights</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Policies</td>
<td>Central Government Policies</td>
<td>Head of Regional Policy and the Central Government accommodate the interests and welfare of the community.</td>
</tr>
<tr>
<td></td>
<td>Planning</td>
<td>Forest Land Uses and Planning Policies Palm oil Investment Policies</td>
<td>Spatial Policy in a rational and realistic manner, based on regional characteristics.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Forest Land Uses Land Conversion Policies</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Land Suitability for Plantation and Agriculture</td>
<td></td>
</tr>
</tbody>
</table>

**Key Points:**
- Community participation
- Legality of land
- Government policies
- Spatial planning policies
- Community empowerment policies
CONFLICT

EXCLUSION OF PEOPLE

REJECTED PARTICIPATION

COLLABORATION

NOT DESIRED

DESIRED
The sun is shining on Seram Island

Irresponsible policies

Maluku Scenarios
Kalimantan Scenarios

SKENARIO 1. STEPS IN HARMONY
- Policies that favor and compiled together with the community, enhance public participation in the planning process to monitoring and supervision.
- Access to education and skills are improved.
- People master appropriate and environmentally friendly technology.
- Synergy between customary law and positive law supports the course of development.

SKENARIO 3. PANNING THE GOLD GETTING THE STONE
- Indigenous peoples have split as a result of the weakening of customary law and indigenous knowledge.
- The stakeholders seek to win personal and group interests over the land use.
- Education is not accessible for all the people.
- Conflicts in society escalate triggered by the exclusion of the society in the development process.

VS
System map of proposed plan

Scenario for District planning

Customary institution

Community forestry

Regent regulation on CR

CSR program

SHs dialog

Revised spatial plan

LU survey

Identify NGOs

Partnership w NGO

CR boundary

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From scenarios to Action (8)

Proposed action:
- Integrated action plan for district mid-term planning
- Commitment of all stakeholders to implement the action plan
- LUP dialogue at national level involving key decision makers at MoF

Evidence:
- Decision maker agreed to legalize group PPA for future activities
- The district government prioritized programs relevant to key variables of scenario
- National stakeholders workshop stimulated policy discussion at national level
Ongoing Action

Recommendation to use 1:50,000 scale of land allocation map for district level
Lessons learnt

- The process involved many stakeholders that synergizes different interests on forest management
- PPA can improve governance, e.g. inclusive coordination, building trust
- Using bottom-up approach, will help the policy maker to better understand the needs of forest stakeholder’s
- Applicable approach for multi-stakeholders of forward looking forest management
- Element of success: involvement of key decisions makers since the beginning
PPA and policy making

PPA approach can be used to improve planning and programme in complex multi-stakeholders environment by:

- Incorporating long-term perspective to better inform decision making processes
- Integrating key drivers for better natural resource management decisions
- Influencing policy makers to integrate aspirations from many groups of stakeholders leading to better coordination between sectors
- The method is replicable, in other situation, other part of the world
- PPA is not only the tools but also new way of thinking
Future challenges

- How to ensure non-government stakeholders are equal partner in participatory decision making process?

- Embedding participatory forward looking process (PPA) into government system
Thank you

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