



# Participatory Prospective Analysis (PPA):

Scenario building approach for improving, exploring and anticipating challenges in complex multi-stakeholders systems

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# 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

**S0 – Definition of the system**

2. Identify the variables

3. Define the variables

4. Analyze their mutual influences

5. Identify and select the key variables

**S1 – Identification of the key factors that will shape the future**

6. Define the states of the variables

7. Build up scenarios

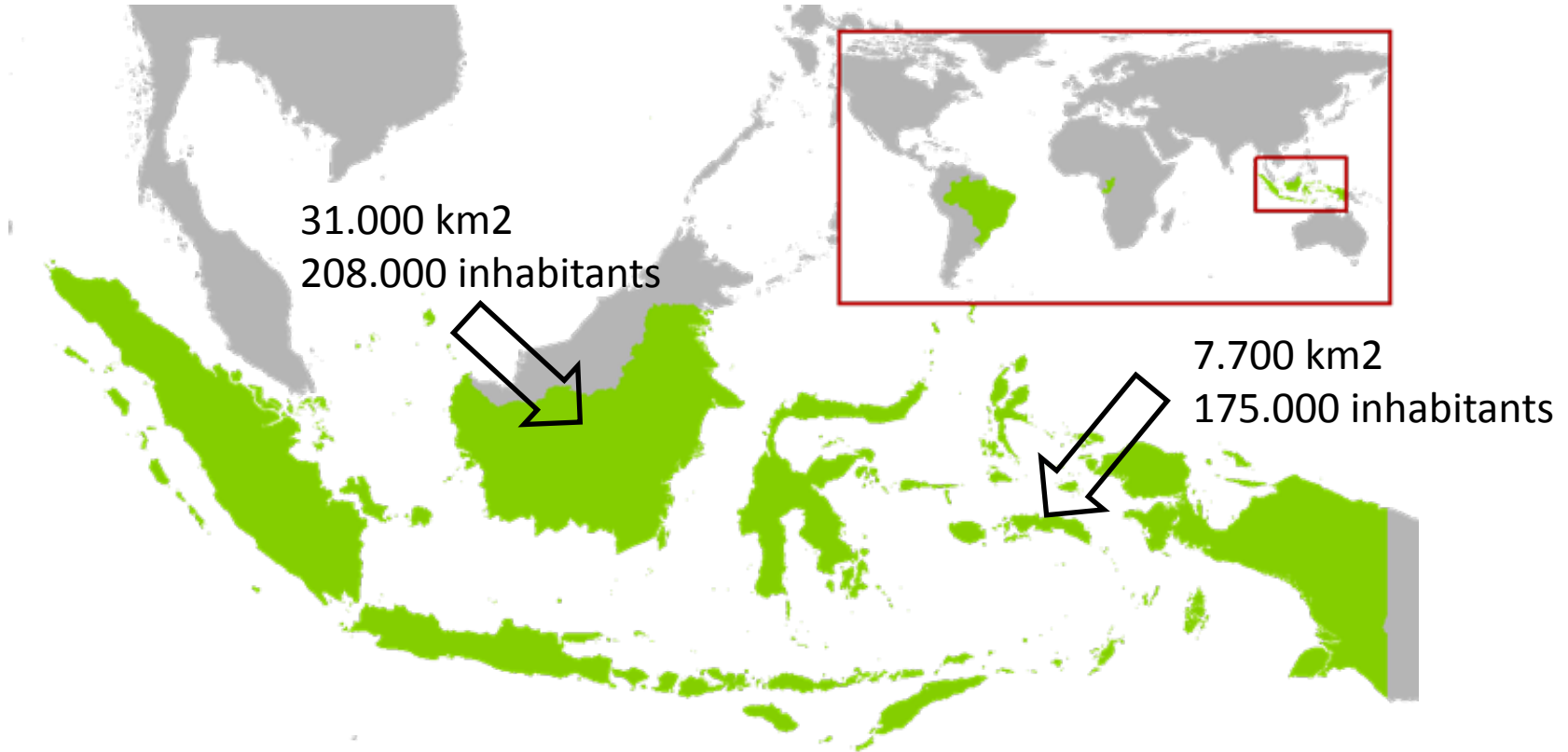
**S2 – Identification and description of the possible futures**

8. Implications of the scenarios and related actions

**S3 – Definition of a strategy**

# PPA APPLICATION

*Case study in Indonesia (Kalimantan & Maluku)*





# 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





# Define System Boundary (1)

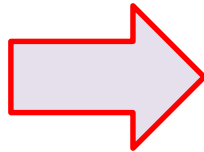


- ❖ Q: What could be the future of **land use**?
- ❖ Time: **20 years**
- ❖ Geographic boundary:
  - ✓ Kapuas Hulu regency
  - ✓ Central Maluku regency



# Identification of Variables (2,3)

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



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

# Influence/Dependence Analysis (4)

**Note**  
0 = no direct  
1 = direct influ

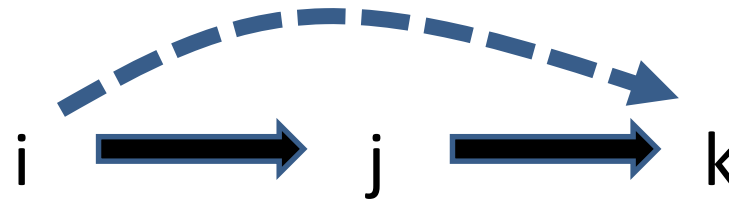
	From↓ To→	COORDINATION	MINDSET /
1	COORDINATION AMONG SECTORS	0	-
2	MINDSET / PARADIGM	1	
3	ADAT LAW	-	-
4	NUMBER OF STUDENTS	-	-
5	INCOME	-	-
6	LEVEL OF COMMUNITY HEALTH	-	-
7	COMMUNITY HEALTH ACCESS	-	-
8	EDUCATION LEVEL	-	-
9	COMPETENCY OF GOVERNMENT OFFICIALS	1	-
10	DEVELOPMENT POLICY	1	-
11	DISCIPLINE	-	-

Variables' influence    Variables' total influ    Feuil1    Variables' total s

Kekuatan langsung terbobot	Rank	Kekuatan tidak langsung terbobot	Rank
PERANSERTAMASY	3.790	PERANSERTAMASY	2.176
HAKPETADAT	2.738	HAKPETADAT	2.065
JAKKEPALADAERAH	2.536	JAKKEPALADAERAH	1.976
JAKTAFUKAHT	2.373	POTENTAMBANG	1.831
KEARIFLOKALSDA	2.373	EFEKLEMBLOKAL	1.765
LEGALITASLAHAN	2.136	LEGALITASLAHAN	1.665
EFEKLEMBLOKAL	1.884	KESESLHNTAN&BUN	1.657
KESESLHNTAN&BUN	1.758	JAKTAFUKAHT	1.630
JAKBERDYMASYA	1.648	JAKLINGKHIDUP	1.604
JAKTATARUANG	1.643	PERANAKADEMIS	1.569
HARGKOBUN&TAN	1.605	JAKPEMPUSAT	1.492
JAKINVESSAWIT	1.601	JAKPEMPROV	1.446
JAKKONVERSILHN	1.601	KEARIFLOKALSDA	1.436
JAKPEMPUSAT	1.557	JAKTATARUANG	1.390
JAKPEMPROV	1.388	JAKPENGELHUTAN	1.377
JAKWILTANGKAIR	1.358	PASTIHKUMTA	1.374
PERANAKADEMIS	1.308	JAKKONVERSILHN	1.374
POTENTAMBANG	1.308	KUASDMSYARKAT	1.362
JAKPENGELHUTAN	1.282	ETOSKERMAS	1.313
PASTIHKUMTA	1.073	JAKWILTANGKAIR	1.263
JAKLINGKHIDUP	0.996	JAKINVESSAWIT	1.195
KUASDMSYARKAT	0.981	KESEPPEMDAERAH	1.181
OTOMDAERAH	0.971	KONSISPELJAKHGU	1.142
KONSISPELJAKHGU	0.930	PERTUMPENDUDUK	1.111
JAKTRANSMIGRASI	0.908	JAKPARIWISATA	1.095
ETOSKERMAS	0.890	JAKTRANSMIGRASI	1.030
PERTUMPENDUDUK	0.872	JAKBERDYMASYA	0.965
BANGKOMUNGGDAE	0.841	JAKHGU	0.952
JAKVESKA&CO	0.768	OTOMDAERAH	0.935
SISTEMPERTAN	0.734	DINAPOLDAERAH	0.908
KONSERSVDHEKO	0.664	BANGKOMUNGGDAE	0.865
PHASEOUTSAWIT	0.605	HARGKOBUN&TAN	0.837
JAKHGU	0.534	PEMANFLAHUT	0.807
PEMANFLAHUT	0.519	HUMAS&PERUSH	0.789
MANFAATHSLHTN	0.464	KESESLAMUKIM	0.736
POLAGUNLAHAN	0.462	POLAGUNLAHAN	0.711
JAKPARIWISATA	0.419	JAKVESKA&CO	0.701
DINAPOLDAERAH	0.392	SISTEMPERTAN	0.672
HUMAS&PERUSH	0.349	STATLHNPNUNGSI	0.582
KESEPPEMDAERAH	0.317	SIKMASLOKTRANS	0.556
MATPENCAMASY	0.287	MANFAATHSLHTN	0.465
PENDAMASY	0.287	PHASEOUTSAWIT	0.460

50 INTERNAL VARIABLES

# Influence/Dependence Analysis



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

Direct influence table:  
Copied for multiplication

	Var. A	Var. B	Var. C
Var. A	$M_{A,A}$	$M_{A,B}$	$M_{A,C}$
Var. B	$M_{B,A}$	$M_{B,B}$	$M_{B,C}$
Var. C	$M_{C,A}$	$M_{C,B}$	$M_{C,C}$

Direct influence table:

	Var. A	Var. B	Var. C
Var. A	$M_{A,A}$	$M_{A,B}$	$M_{A,C}$
Var. B	$M_{B,A}$	$M_{B,B}$	$M_{B,C}$
Var. C	$M_{C,A}$	$M_{C,B}$	$M_{C,C}$

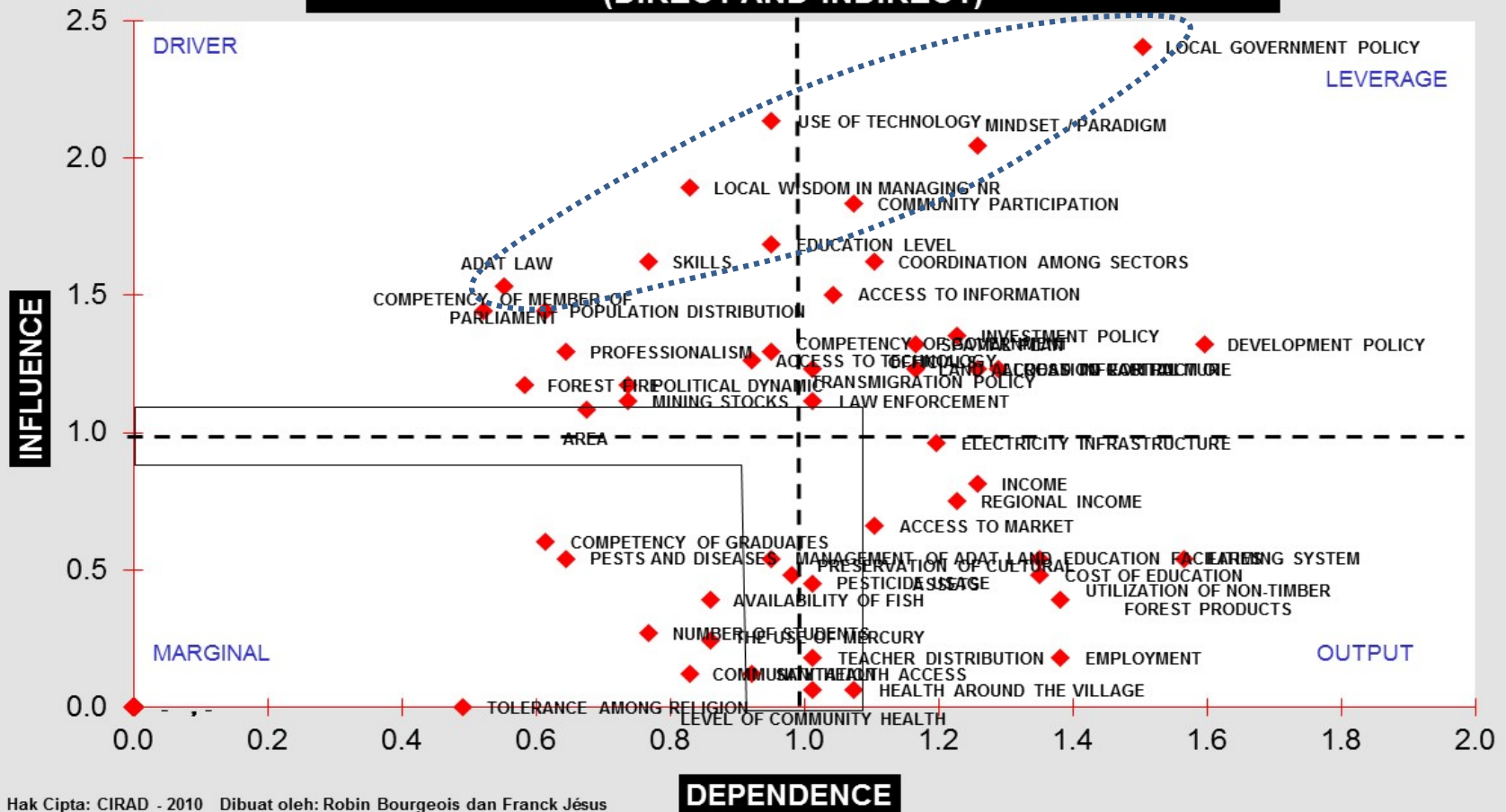
	Var. A	Var. B	Var. C
Var. A	$M_{A,A}$	$M_{A,B}$	$M_{A,C}$
Var. B	$M_{B,A}$	$M_{B,B}$	$M_{B,C}$
Var. C	$M_{C,A}$	$M_{C,B}$	$M_{C,C}$

$$RTI_{A,C} = M_{A,A} * M_{A,C} + M_{A,B} * M_{B,C} + M_{A,C} * M_{C,C}$$

Result: Indirect influence table



## OVERVIEW OF THE IMPORTANCE OF DIFFERENT VARIABLES (DIRECT AND INDIRECT)



**(5) Key drivers: Government policy, use of technology, customary law and wisdom, mindset, participation, education and skills**

# Building Scenarios (6,7)

No	Key variables	Similar variables	States			
			A	B	C	D
1	Community Participation		Community involved in planning, implementing, and monitoring of land use in a transparent system.	Top-Down approach in planning and land management (community, as the executor).	Community refused to participate in the process of land management.	Communities manage land regardless of the formal rules.
	Legality	Customary Land Tenure	Customary rights and local wisdom are arranged in local legislation, and are implemented.	State controls of customary land and ignores the values of local wisdom.	There is no certainty of customary land law and a loss of local wisdom and values.	Petuanan customary rights of indigenous peoples without government regulation.
		Local Wisdom				
		Petuanan Customary Rights				
	Policies	Central Government Policies	Head of Regional Policy and the Central Government accommodate the interests and welfare of the community.	Head of Regional Policy and the Central Government is authoritarian, only in favor of certain groups, and did not consider the interests and welfare of the community.	Regent policies and regulation do not considered sustainable land use (social, economic, and physical).	Communities reject all policies, i.e., Regent's and the Central Government's policy in land use.
Planning	Forest Land Uses and Planning Policies Palm oil Investment Policies Forest Land Uses Land Conversion Policies Land Suitability for Plantation and Agriculture	Spatial Policy in a rational and realistic manner, based on regional characteristics.	Utilization of space that does not refer to spatial planning policies.	Determination of forest area that is not proportional to the spatial planning policies.	Spatial planning policies are not in accordance with regional characteristics.	
5	Community Empowerment Policies		Community empowerment policy in accordance with the capacity of community and business characteristics based on	Community empowerment policy which does not correspond to the capacity of the community and	Society refuses or does not utilize the empowerment of government policy	

- Community participation
- Legality of land
- Government policies
- Spatial planning policies
- Community empowerment policies

1

2

3

# CONFLICT

# EXCLUSION OF PEOPLE

# REJECTED PARTICIPATION

# COLLABORATION

## SKENARIO 4. MAKAN TUBA BUAH



Rencana dan kebijakan ngatur tanah ak di gensei pakai nggak selah ngurung keritik magang

Parorogka sekulan udah endak mungken-mungken nyuruh kita sekulah

Kalau aja proyek, masyarakat nonon magang

Kalijaban pambangunan enda tenru tadi, sei buh lara pagi lara, mana salah magang?

## SKENARIO 3. MENDULANG EMAS MENDAPAT BATU



Alas mana nialah lempih, akilal adal udah enda di pakai agal

Sepai yang memanggih, yak meh yang dipaji-sekulah

Kalau ada proyek yang perlu makai tanah, semua ngatur akil tanah!

Ujung-ujung bepadu sama dirik, akilal pambangunan enda merata

## SKENARIO 2. LEMPAR KOIN SEMBUNYI TANGAN

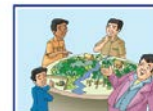


Mana bila salah sekulah, pemerintah magang naik pacul

Orang adal seutrapema Terhima lau, enda beang?

Nesak orang peduli untuk ngatur tanah akil. Derasa kita rusak, yak meh akilak tyi

## SKENARIO 1. LANGKAH SERAMPAK



Rencana pambangunan enda digawal kemarik oleh pemerintah, hap makai masyarakat dalam kalaja lalu martau hasil kalaja

Masyarakat makai centas, semua nabiah masuk sekulah

Ngimbal kemaju teknologi yang namah lingkungan

Sebagai masyarakat yang beradab, hukum adal lara: dipakai kalaja pambangunan kila beraturan dari damai

**NOT DESIRED**

**DESIRED**

## Skenario 3: PERJUANGAN SENG BERUJUNG



Pemerintah dong balang mengaku katong pung truk ulayat sehingga kedadang-kadadang katong harus barjuang setetanga mati par akang lai.

Kaku bodoh ada lepastian par huk ulayat yang katong mikil

Pendayaknialah katong bukan cuma par satu dua balang saja, tapi baling yang bui supaya katong bisa berdaya sekertanya

Kalo pemerintah mau bantu katong dengan cuma bilang kebijakan saja tapi harus biling jaga akil-akli nyata yang katong dapak rasakan di katong pung negeri

## Skenario 4: KEBIJAKAN YANG SENG BIJAK



Kebijakan pambudayaan masyarakat dan pambudayaan lahan yang sudah ditetapkan paling bagus e.e.e, tapi dong seng biling akang sesuai dong apa yang tu ditetapkan tuai

Katong mana ager pemerintah dong yang mau ator ak pemerintah dong pung mai sabb, tapi mau ator ager ngat kerdulak.

Kaku pemerintah ator sebarang, katong ak bing bilang ak katong pung mai lai, akilalnak bing beraturan lara kerdulak

Kaku ada sesuatu seng pas dong katong pung tanah tanah adat, mari katong ator akang bernama katong saling mambualatkan, jadi mari kita ator lahan ni bar-ban

## Skenario 3: MISKIN DI NEGERI SENDIRI



Carang pung sumber daya alam paling miskin, tapi katong seng bisa rasa akang karena semua pemerintah ngatur yang ator dan cuma memperhatikan kelompok tertentu saja

Katong ini negeri adal! jadi kaku mau biling sesuatu di katong pung perntasan adat, jang lara katong pung aturan-aturan adal yang sudah ada sejak katong pung leluhur

Wajibkan kerjasama antara masyarakat dan perusahaan, jangni ada dusa di antara katong

Banya kekayaan alam di pulau Seram, ator akang bae-bae, supaya jang katong tinggal miskin tarus.

## Skenario 1: MATAHARI BERSINAR DI PULAU SERAM



Kebijakan pemerintah tentang pengelolaan lahan di Maluku Tengah yang memperhatikan katong pung hak-hak supaya katong bisa sejahtera perlu dibikin dalam peraturan daerah

Tanah Ulayat adalah warisan leluhur per katong dong ana-ana pung hidop, jadi kaku bole ator akang bar-bae jang dong satu peraturan daerah yang pasi

Kebijakan pambudayaan masyarakat yang pemerintah biling itu paling bagus kalo akang cook dengan kerdulak yang ada di katong pung negeri, jang cuma asal nama pambudayaan saja

Supaya semua senang, maka pemerintah musti ator lahan-lahan sesuai keadaan setempat

# Maluku Scenarios

## The sun is shining on Seram Island



Tanah Ulayat adalah warisan leluhur per katong deng ana-cucu pung hidop. Jadi kalu bole alor akang bae-bae juga deng satu peraturan daerah yang pas!

Kebijakan pemberdayaan masyarakat yang pemerintah biking itu paling bagus kalo akang cocok dengan keadaan yang ada di katong pung negeri, jang cuma asal nama pemberdayaan saja



Supaya semua sanang, maka pemerintah musti ator lahan-lahan sesuai keadaan setempat

VS

## Irresponsible policies



katong minta agar pemerintah dong jang mao ator iko pemerintah dong pung mao saja, tapi musti pikir-pikir rayat kecil ni lai.



Kalu pemerintah ator sabarang, katong jua bisa biking iko katong pung mau lai, akibatnya bisa masalah labe basar lai



Kalu ada sesuatu seng pas deng katong pung tanah-tanah adat, mari katong ator akang bersama katong saling membutuhkan, jadi mari kita ator lahan ini bae-bae.



# 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



EDUCATION IS NOT ACCESSIBLE FOR ALL THE PEOPLE



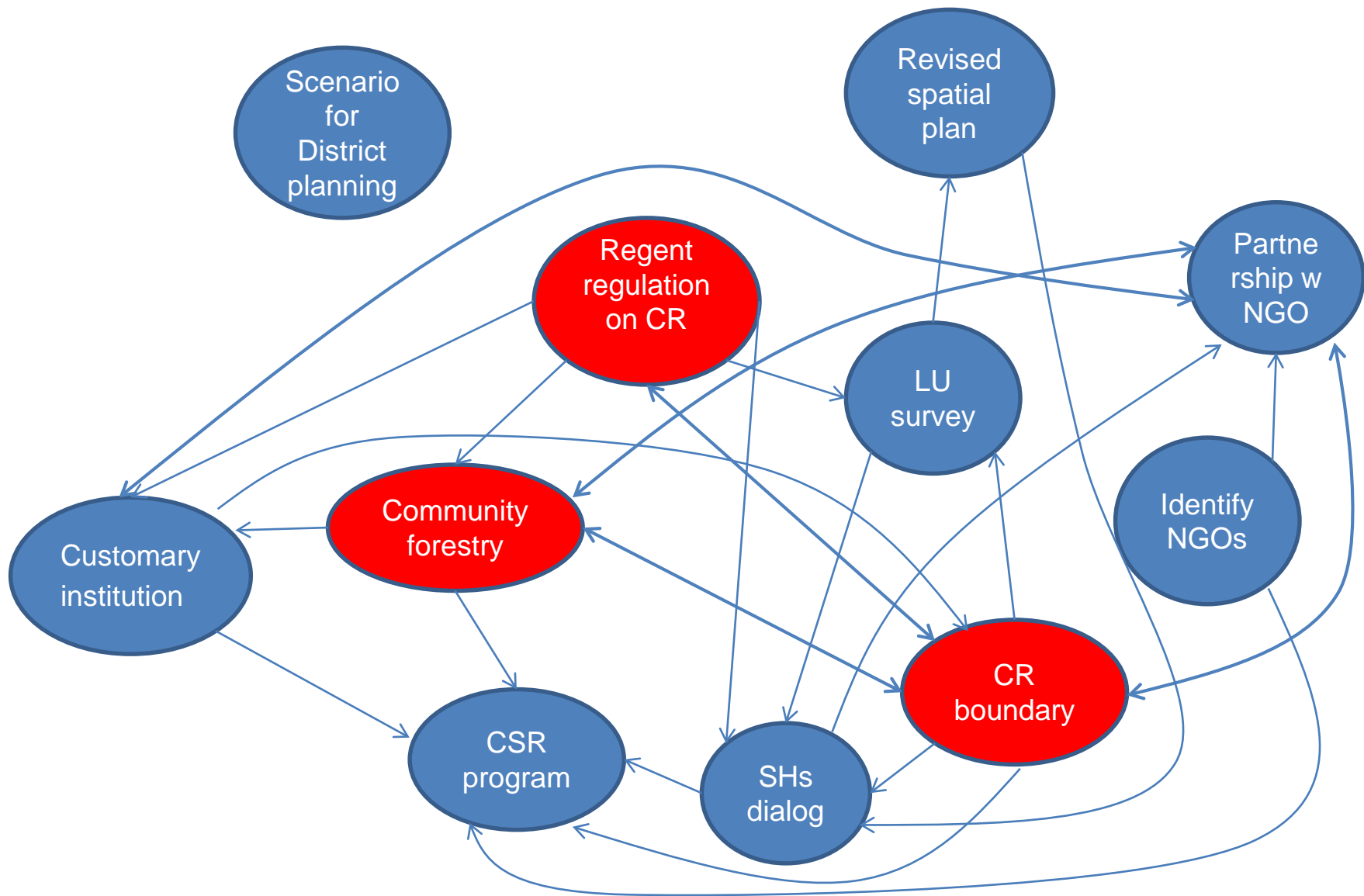
the stakeholders seek to win personal and group interests over the land use



Conflicts in society escalate triggered by the exclusion of the society in the development process

VS

# System map of proposed plan



# From scenarios to Action (8)

## Proposed action:

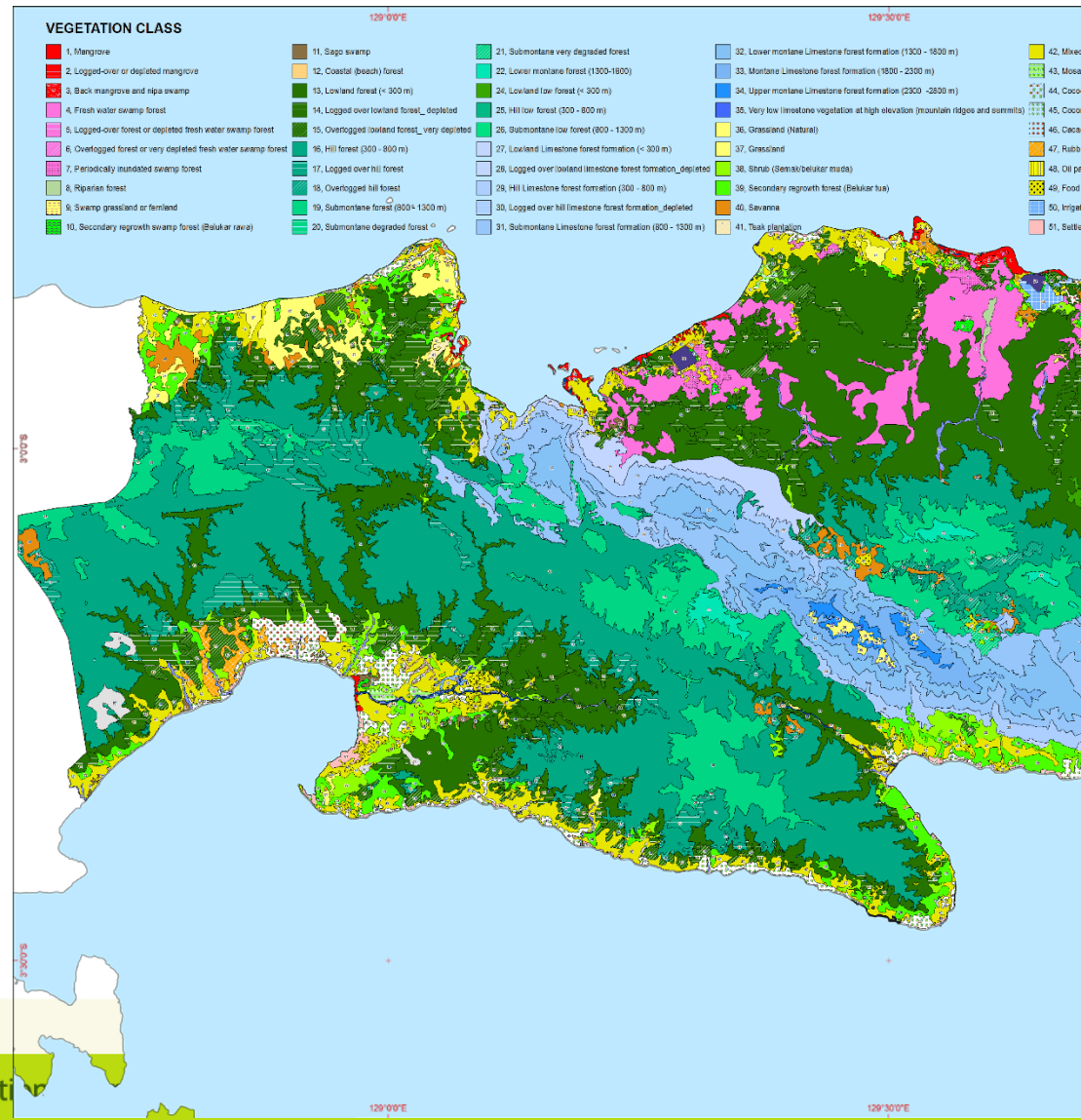
- ❑ Integrated action plan for district mid-term planning
- ❑ Commitment of all stakeholders to implement the action plan
- ❑ LUP dialogue at national level involving key decision makers at MoF

## Evidence:

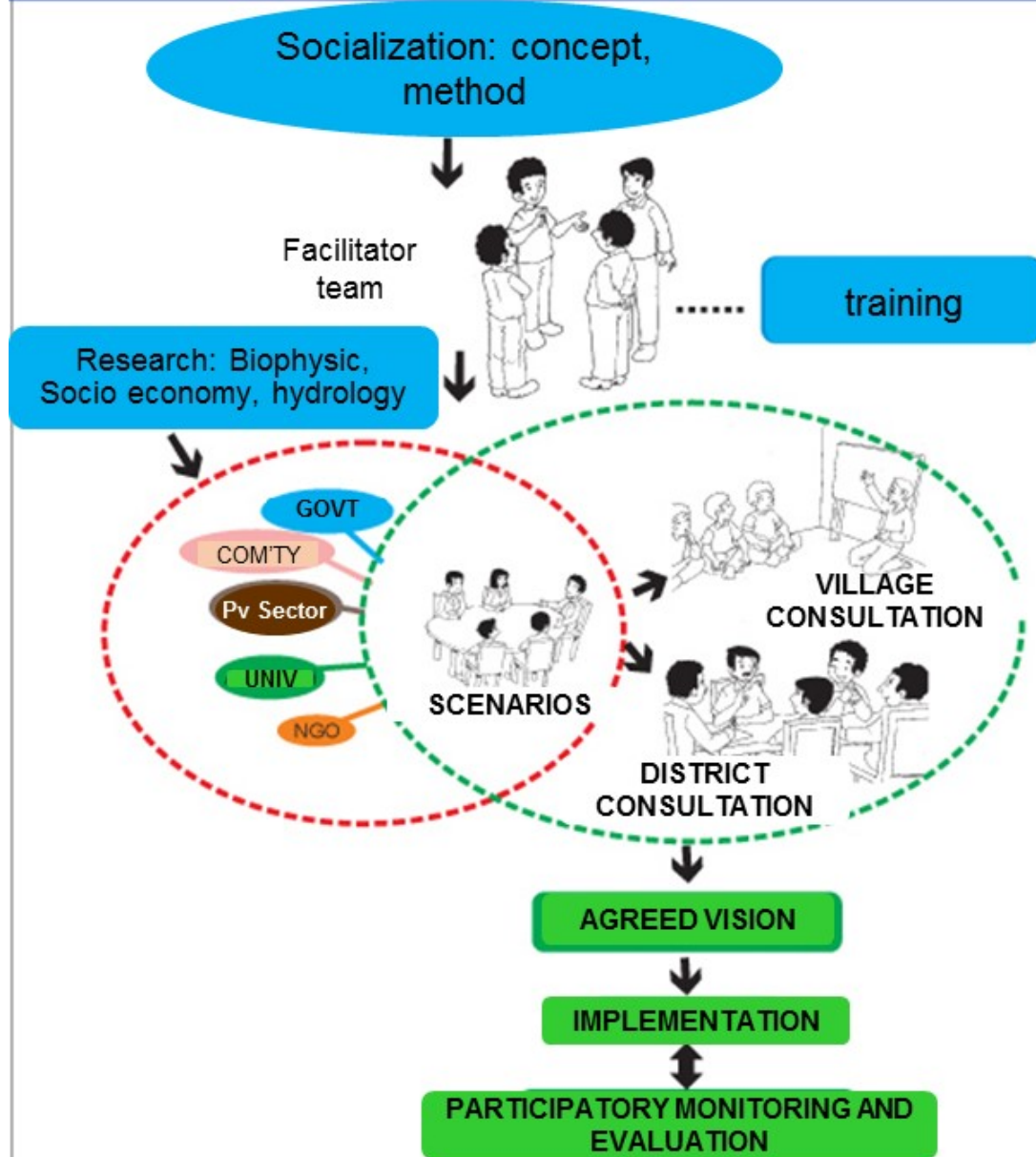
- Decision maker agreed to legalize group PPA for future activities
- The district government prioritized programs relevant to key variables of scenario
- National stakeholders workshop stimulated policy discussion at national level

# Ongoing Action

Recommendation to use 1:50.000 scale of land allocation map for district level



# PARTICIPATORY PROSPECTIVE ANALYSIS (PPA) PROCESS FLOW



# 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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