Final report:

Prospective Participatory Analysis (PPA) Report: The Development of Kapuas Hulu in 2030

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Collaborative Land Use Planning and Sustainable Institutional Arrangements for Strengthening Land Tenure, Forest and Community Rights in Indonesia (CoLUPSIA)

Table of Contents

List of Tables

List of Boxes

List of Figures

Background

Development aimed for improving the welfare of the community. Local government through Law No. 22/1999 on regional autonomy has the mandate as *agent of development* in the area. On the other hand, it requires the human capital, natural resources, financial resources and other capitals.

Despite the resources, development is a complex system, influenced by various driving forces and pull factors, and uncertainty. Therefore to understand such a complex issues requires collaboration between various stakeholders to enable them to share resources, knowledge, and expertise in order to result in constructive and problem solving-oriented view.

Understanding of the issues will help policy makers to identify the most appropriate analysis and development planning, prepare for a change and have the ability to deal with uncertainty.

In a specific context, the development in Kapuas Hulu has two-sided of the coin.First, the position of Kapuas Hulu regency which has an important role for the balance of the ecosystem of Borneo island in which there are two important conservation areas that is Betung Kerihun National Parks and Danau Sentarum National Park.

Second, geographically it lies in the border which is also the front veranda of Indonesia made the idea of development in all fields is more acceptable among the community and policy makers at the local level.

By looking at the above conditions, the strategic questions arise are as follows:

1.
What Could Happen possibly with the development in Kapuas Hulu in 20 years in the future?
2.
What development approach is possible and Suitable for Kapuas District considering both conservation and development 'needs?

Based on the above conditions, the Collaborative Land Use Planning Project (COLUPSIA) took the initiative to convene a stakeholders workshop to facilitate the sharing of knowledge and expertise related to development in the Kapuas Hulu district.

Through this process the stakeholders are expected to identify changes that may occur in the future and the factors that influence it, build understanding regarding to desire future and prepare measures to deal with probable changes and determine the necessary actions.

Organizing the PPA workshop

PPA is a participatory and multi-stakeholders methods. Therefore, the selection of participants involved in the workshops is an important first step.Participant selection process begins with a consultation with several key informants who have a comprehensive understanding of the issues in Kapuas Hulu following several criteria are:

a. Have expertise relevant to the topic
b. Have time available to attend a series of workshops. The concerned person also must obtain permission from the superior at his office.
c. Open-minded and can accept a different opinion

Based on the identification process, prospective participants were contacted and explained the workshop process flow, objectives and expected outcomes of the workshop.The participants are expected to participate fully in all activities of the workshop. This stage is to get feedback about time availability and recommend others with similar criteria and expertise if they have no time available.

PPA method recommends workshop participants around 10-12 people.The organizer invited up to 20 people covering various expertise in the areas of policy and development including some relevant practitioners.The number of participants is expected to represent the growing diversity of issues and consider the geographical conditions in Kapuas Hulu (list of participants attached).

PPA workshop series I was held on 26-28 May 2011, followed by PPA II workshops held on 23-25 June 2011 in Pontianak and PPA III held on July 25 to 27, 2011 in Putussibau.

Workshop Series	Number of Invitations	The number of participants present
1	20	17
2	20	16
3	16	13

PPA method consists of 8 stages which will be implemented through a series of workshops. PPA implementation in Southeast Maluku shows that a full-week workshop is less effective during the brainstorming process and exhausting for the participants.Therefore, serial workshop is the most sensible option to facilitate effective brainstorming process and can produce output that agreed by all stakeholders.

Table 1. Stages of PPA Workshop

Stages	Workshop Series
1. Definition of the system's limits Defining the issue in which collected and analyzed. The issue is a system that has the characteristics of space and time. *2. Identification of variables* Determine variables that influence the system from various perspectives of expertise. *3. Definition of key variables* Discuss the relevance of variables and definitions	Workshop I
4. Mutual influence analysis Stakeholders conduct structural analysis and agreed on direct influence and dependence between variables *5. Interpretation of influence / dependence links* The analysis will be processed with software provided so as to produce tabulations and graphs depicting the four types of variables: "driver"; "stake"; "marginal" and "output"	Workshop 2
6. Definition of the states of variables Describes the state of variable in the future where contrast and mutually exclusive of one another	Workshop 3

7. Building scenarios Build a scenario based on a combination of variables. Scenario is developed through brainstorming, clustering and merging variable	
8. Strategic implications and anticipated actions Describes the selected scenario include a strategy to realize the action	Workshop 4

Workshop opening rhyme
by H. Ade Ibrahim
Let's pick the fruit of papaya
For us to make salad
Our event is a workshop
Off course participants are wise

Workshop Series 1
(26 to 28 May 2011)

On the first day (18/07/2011), participants gather for agenda setting in which participants were asked to introduce themselves to each other and discuss their goals and expectations attended the workshop. The facilitator asked participants to walk around the room to meet the other participants to introduce themselves, so that at the end of the session participants will be able to introduce other colleagues' identity.

Facilitator also asked participants to write down the expectations attending the workshop. In general participants expect to know more about PPA method and process, to update and share recent discussion on development issues in Kapuas Hulu and in the future development can be properly planned and implemented for the benefit of all stakeholders.

Box 1. Participant's expectation

> ✓ To know the PPA process and methods
> ✓ To get the same perception in development of Kapuas Hulu
> ✓ To share about development issue in Kapuas Hulu
> ✓ To get information and input from various stakeholder groups in Kapuas Hulu for future development
> ✓ This meeting led to great results and benefits to community Kapuas Hulu
> ✓ To know the state of Kapuas Hulu in the past, present and the future from natural and scientific perspective
> ✓ Knowing what could be the obstacles in the development of Kapuas Hulu in the next 20 years
> ✓ Development in Kapuas Hulu pays more attention to nature conservation and the environment so that it can be enjoyed by children and grandchildren
> ✓ Expect for better infrastructure
> ✓ A clear plan for the next Kapuas district and its implementation

General description of PPA method

The facilitator explains the origin of PPA method and how the method is applied in the context of the problem, regions and different countries. The facilitator also shared the experience of organizing similar process in Yamdena island.

In general, the PPA method assists the stakeholders deal with uncertainty in the future.Therefore they are able to come up with better solution leading to the desired future as well as to anticipate unwanted future.

1. Identification of system boundaries

Before identifying the boundaries of the system, participants are invited to understand the system, the characteristics and behavior of the elements within the system. There are elements within the system or system components are interconnected with one another. The relationship between these variables are analyzed by the stakeholders to form a structure of the system.Of these structures would appear a few strong variables that have the most influence in the future.

Through an understanding of the system, policy makers will be avoided by new problems arising from a policy, a partial-look and prioritize short-term benefits than long-term costs.

Identification of system boundaries is important to focus the issues and discussions during the process.

In the context of Kapuas Hulu, the development is seen as a way to increase benefit of the all society. Development cover wide array of issues, not only provision of basic needs such as health, infrastructure and education, development is expected not to harm the environment.

Box 2. Limitation of the System

What is the topic question?
  □   What happened with Development in the future?
  Development is defined as an effort to improve the quality of the various sectors including education, health, infrastructure, economy, environment and so on.
Where is geographic boundaries?
  □   Administrative boundary of Kapuas Hulu
What is the period of time?
  □   20 years (Year 2030)
Who is involved?
  □   Indigenous peoples
  □   Traditional leaders
  □   Religious leaders
  □   Youth / Student
  □   The central government
  □   Local governments (Bappeda, forestry, mining, plantations, agriculture and animal husbandry, fisheries, PU, tourism)
  □   The provincial government
  □   Private sector (mining, fisheries, trade, farming, agriculture, forestry)
  □   Local parliament

  "What could happened with in DEVELOPMENT in Kapuas Hulu by year 2030"

Exercise: Exploring the future

One of the highlights of the PPA method is a method to discuss the vision, something that person/group wants to achieve in the future.

This exercise aims to stimulate participants to think about the future of Kapuas Hulu and put it in the form of images. Thinking in images is one way to convey the idea and believed to be more effective than oral or written (Lester, 2006)[1].

Facilitator divides participants into groups and each group should find images that represent an agreed vision and put on a flipchart paper.At the end of the session each group will present their vision to get feedback from participants.

Each group provides a unique title for his work, namely 1.Blossom; 2. Kapuas Hulu megapolitan based on environment; 3. I want to be a regent; and 4. Development based on people's rights.

Based on the exploration conducted within each group, it can be concluded that the agreed vision has shaped by several driving factors as well as pull factors. And in order to achieve certain vision, it can't be achieved alone but should involved other stakeholders. Participants recognized the importance of the involvement of other people because one person can not change and resolve all the issues in Kapuas Hulu.

2. Identification of variables

In the PPA method, identification of variables is a crucial step. Variable defined in this method is a factor that has an influence on the topic.

There are several criteria to determine variables:

a.   short sentence

example: "road conditions is difficult to pass during the rainy season", so the variable is "transportation access"

b.   a neutral sentence

example: "fertilizer is expensive", so the variable is "the price of fertilizer"

c.   not a physical expression

example: "money" is not a variabel but "capital access" is a variable

d.   characterize the different circumstances in the future

example: "The conflict between local communities and private companies", then the variable is "The relationship between local communities and private companies" because it can describe some circumstances such as: Believe: Do not believe; open conflict, no problem.

In the first stage, all variables are collected without critiquing its relevance.

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[1] Paul Martin Lester (2006). Visual Communication: Images with Messages, 4th edition, Thomson Wadsworth, Belmont USA

While the next stage is the elimination of the relevant variables, especially compliance with the criteria of variables and similarity among variables. Different variable is classified under new variable. See annex 2.

Table 2. Variables that affect the Kapuas Hulu DEVELOPMENT

Aspect	Variables
Policy	Development policy
	Government policy
	Investment policy
Academic	Number of pupils
	Level of education
	Distribution of teachers
	Cost of education
	Educational Facilities
	Competence of graduates
Fishery	Availability of fish
	Flood
	Water Debit
Health	The level of public health
	Access to Health Care
	Sanitation
	Environmental health
Economy	Employment
	Income
	Market Access
	District Revenue
	Utilization of NTFP
	Access to capital
	Professional entrepreneurs
Infrastructure and technology	Road infrastructure
	Use of Technology
	Access to technology
Demography	Population
	AREA
	Distribution of the population
Land use	Spatial plan
	Land allocation for palm oil plantations
	Indigenous land management
Environment	Sedimentation
	Forest fires
Agriculture	Pest
	Use of pesticides
	Farming systems
Mining and energy	The use of mercury
	Mine reserves
	Electricity infrastructure
Governance (governance)	Coordination between sectors
	Competence of government officers

	Competence of members of district parliament
	Access to information
	Community participation
	Law enforcement
Customs and culture	Customary law
	Indigenous knowledge on natural resource management
	Preservation of cultural assets
More	Paradigm
	Tolerance among religions
	Political dynamics

Sources: Workshop PPA 1

3. Defining the variable

The next stage is the participants to define the identified variable.This definition is important during analyzing influence-dependence of variables, the participants have the same perception. If the participants work with a different definition therefore it it would be difficult to achieve consensus.

Facilitator divided participants into three groups where each group was asked to discuss the definition of identified variables within the group and discussed the results in a plenary session.

Agreement PPA 2 follow-up plan
The workshop was closed with the agreement of participants to be present again in the next workshop to be held 23-25 June 2011 in Pontianak. The facilitator recalled the commitment of all participants to attend the meeting and those who had not been attended in the first workshop will be re-invited.

Workshop Series 2
(23 to 25 June 2011)

Review Workshop Series 1

Workshop PPA 2 was attended by 16 people.Few were absent and there were new participants which did not come in the previous workshop Before getting into the core material, the facilitator reviewed previous results and suggested to refine some variable's definition.

There were unclear meaning, that is population, customary law, educational facilities, pests, floods, area, and political dynamics.During the discussion, new variable was found namely transmigration policy that affects the dynamics of development in Kapuas Hulu.

The 2nd workshop series focused on analyzing the relationship between variables which according to previous PPA experience requires the most energy.

4. Analysis of mutual influence

The facilitator explained briefly about the mutual influence analysis, how to do it according to PPA method A.Analysis is conducted based on the direct influence of one variable to the other variables. Analysis of the indirect influence is not a concern since PPA software will automatically performs the calculations. The results of the analysis are direct influence and dependence variables.

To perform the analysis, PPA method uses scoring system where "0" score illustrates there is no direct influence, and "1" represents direct influence.

The number of variables to be analyzed as many as 54 variables that will produce 54x54 = 2916 relationships among variables. Because this process requires a critical analysis and properly done, the facilitator divided the participants into three small groups so that the time available can be used optimally.S ach group is facilitated by one facilitator.At the end of the session, the groups results will be integrated into one analysis and will be discussed at a plenary session to be agreed by all participants.

At the end of day 1 (June 23, 2011) participants had completed the analysis in each group, so that the plenary session began on day two.

Analysis of influence-dependence was difficult at the first time because difficulties in understanding the direct and indirect influence.In general the participants thought all variable influence each other, but it didn't. In fact, what they meant by "direct influence" was indirect influence or no influence at all.Especially, if the variable is related to one's field work, the person is likely to defend even if other participants began to understand that those variables have no mutual influence or just indirect influence.Sometimes the participants had their own pre-assumption about what is important and should be important especially with regard to personal field of work or knowledge.

In fact, the use of score of 0 and 1 leads to a psychological effect.Participants seem dissatisfied when the variable is assigned a value of 0 (zero), although it was found that there is no influence at all. They feel that the value of 0 (zero) for the influence variable made the variable less important and insignificant. Therefore participants tend to give the value of 1 (one) and try to back up with an argument that indicate on the other way around as indirect influence or no influence.

Observing this the facilitator changed the approach in communicating the scoring system.Participants were invited to agree that the influence between variables are considered "small / weak" then given the value of 0 (zero), while an influence "big / strong" is given a value of 1 (one). Similarly, if there is no influence between variable then given a value of 0 (zero). With this approach, participants will face three score options namely strong, weak and no influence. This system is psychologically accepted by all the participants and during the process it showed more effective process and visible results that accepted by all stakeholders.

In doing joint analysis, the participants began to engage and to understand how the influence-dependence analysis performed. When the nature of variable is dependent variable, some of the participants were able to sort out the correct analysis by looking at the variable in reverse direction. Participants were able to differentiate which are the direct influence, mutual influence and the indirect influence

The process took relatively slow at the first attempt, and the facilitator tried to help participants made a correct analysis, and repeat explanations need to be made. Participants were also trying to understand what the facilitator explained, but they sometimes forgotten therefore it needs to be reminded constantly.

It must be admitted that the PPA analysis part was the most crucial in the method not only related to the substance of the discussion but also related to the time allotted to produce the agreed analysis. In the second workshops series, analysis part occupied nearly two days activities. Although it took a little bit longer and tiring, at the end all the participants agreed on the results of the analysis.

Analysis and Results Interpretation

After completing the analysis stage, the next step is to explain the analysis results and its implications.To explain the analysis is by looking at variable strength namely direct, indirect and total strength which is a sum of direct and indirect forces (Table 3).

The total strength variable distributed in the top-list are KEBPEMDA, GUNATEKNO, LUASW, ARIF, JMPEND, POLAPIKIR, PARTICIPASI, HKADAT, TRAMPIL and FLOOD.

Table 3. Top 20 of the strength of the variables (direct, indirect and total)

	Direct Strength			Indirect strength			Total Strength	
1	KEBPEMDA	4.84	ARIF	2.24	KEBPEMDA	2.47
2	GUNATEKNO	4.35	JMPEND	2.14	GUNATEKNO	2.46
3	LUASW	3.44	KOMDPRD	2.05	LUASW	2.27
4	POLAPIKIR	3.01	LUASW	1.98	ARIF	2.21
5	FLOOD	2.48	HKADAT	1.97	JMPEND	2.19
6	JMPEND	2.32	PARTICIPATION	1.96	POLAPIKIR	2.18
7	TRAMPIL	2.25	GUNATEKNO	1.95	PARTICIPATION	1.93
8	PENDIDIKAN	2.17	POLAPIKIR	1.94	HKADAT	1.91
9	ARIF	2.04	KEBPEMDA	1.83	TRAMPIL	1.85
10	KOORD	1.74	DISTPEND	1.78	FLOOD	1.85
11	PARTICIPATION	1.74	TRAMPIL	1.76	PENDIDIKAN	1.77
12	KEBTRANS	1.74	PENDIDIKAN	1.67	KOMDPRD	1.75
13	HKADAT	1.63	FLOOD	1.66	DISTPEND	1.72
14	INFRAJALAN	1.51	KOORD	1.59	KOORD	1.63

15	DISTPEND	1.41
16	PROFUSAHA	1.29
17	ALOSAWIT	1.03
18	AKINFO	0.99
19	KEBINVES	0.98
20	DEBIT	0.86

AKINFO	1.57
PROFUSAHA	1.50
KEBAKARAN	1.45
KOMAPEM	1.41
AKTEKNO	1.41
TATARUANG	1.36

PROFUSAHA	1.47
AKINFO	1.46
KEBAKARAN	1.29
DEBIT	1.26
KOMAPEM	1.25
AKTEKNO	1.23

Sources: Workshops PPA 2

KEBPEMDA is the most influence variable but has low indirect influence. This indicates that government policy plays a significant role in development in the Kapuas Hulu district.If government policy fails to address particular issue such infrastructure therefore such sector will be lagging and vice versa.

GUNATEKNO is concerning with how do people acquire and use the technology. The use of technology becomes an important variable since the technology is perceived to be able to provide solutions to human problems such as limited natural resources, fuel, health and various other aspects of life.

POLAPIKIR is a variable that is discussed quite intensively. POLAPIKIR influence DEVELOPMENT in a way that experience, knowledge, education and information collide.POLAPIKIR is characterized as outcome variable.

FLOOD influence Kapuas Hulu development since it has been a common cycle. Moreover, big flood has just inundated Putussibau and several other area neighboring Kapuas river in the end of 2010. This event was mainly caused by high rainfall during the months.

ARIF represents indigenous knowledge in natural resource management has the highest indirect influence. It closely related to HKADAT and PARTICIPATION. In DEVELOPMENT context, indigenous knowledge becomes an important variable influencing the management of natural resources both at local and the district. Therefore failure in incorporating this variable will lead to rejection or conflict.

Indigenous wisdom is inseparable from the existence of customary law in the Kapuas Hulu.

Community PARTICIPATION is essential element for building sense of ownership in development process and its output. It has to be supported by the government and followed by the government's commitment.

Second, by explaining the variables' position on the graph as shown below (Figure 1).

a. Quadrant I is located on the upper left side shows the driving variable which drives the system. They have a strong influence and low dependence.

b. Quadran II is located on the upper right side of the graph act as connector and leverage. Variables in this quadrant are strong in both influence and dependence.

c.Quadrant III is located in the lower right side is the dependent variable which naturally is output variable.

d.Variables in the lower left quadrant is a marginal variable, meaning that it has insignificant influence to the system in question.And the variables that lie in the gray area called *bunch variables* where its role is unclear.

Figure 1. Role of variables (direct and indirect influence)
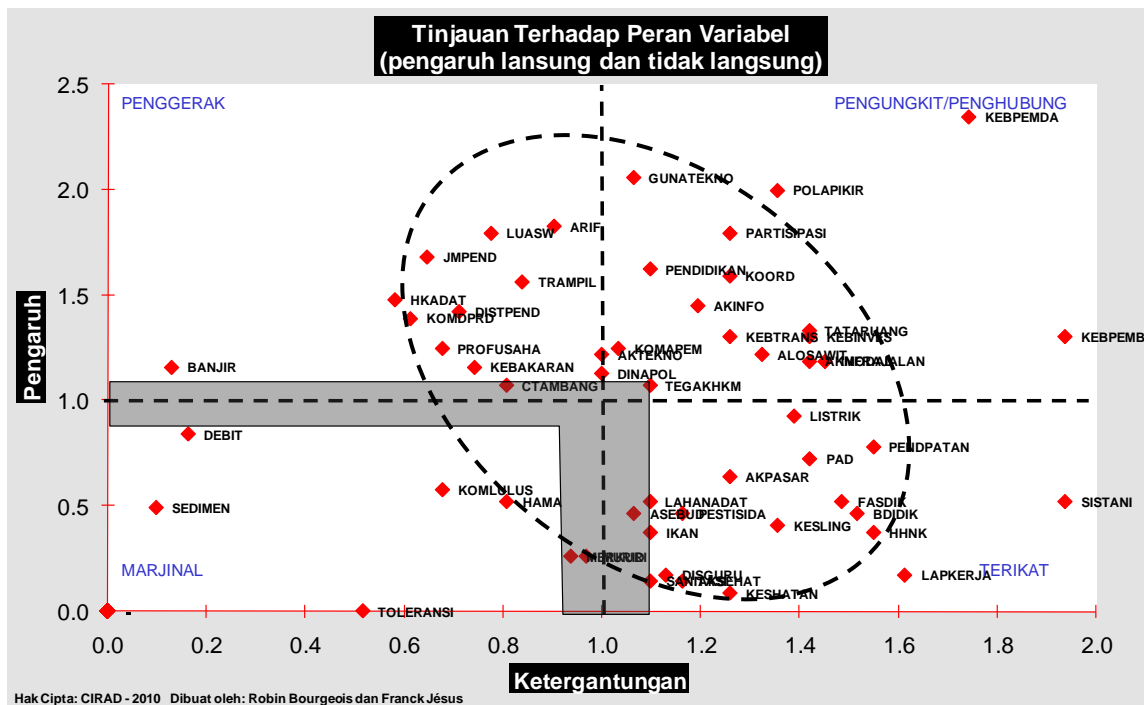
Sources: Workshops PPA 2

Based in Table 3 above, variables with the highest rank are located in quadrant I and II. Strong variables such as KEBPEMDA, GUNATEKNO and POLAPIKIR are both strong influence and dependent so they affect the stability of the system. It is increasingly difficult for the driving variable such as ARIF and HKADAT to affect the changes in DEVELOPMENT in Kapuas Hulu.Overall the structure of the system is unstable (variables gathered on the dotted circle) therefore to make the necessary changes an integrative approach in all lines is required.

PPA 3 agreement follow-up plan
The workshop was closed by agreeing on the implementation of the third workshop in Putussibau on 25 to 27 July 2011. The participants agreed last workshop be conducted in district capital since the topic concerning development of Kapuas Hulu.

Review workshop series 2

Workshop Series 3 opened with a review of the results of PPA 2. In the analysis stage, it mainly focus on the internal variables that is variable in which the decision makers can influence direct and indirect. The facilitator suggested several variables that should be categorized as external variable.External variables are variables in which unable to control by stakeholders, usually due to nature factor. Eg. the climate is the result of a complex interaction of natural conditions and not involving any human' decision.

Variables that are supposed to be an external variable is population (JMPEND), FLOOD, SEDIMENTATION and water Debit (DEBIT) for following reason.

a. Total Population (JMPEND)

According to World Bank data, population is increasing every year, although the government has been applying family planning programs since 1980s. This shows population can not be influenced by government policies, instead government can intervene through declining the rate of population growth.In the period of 1960 - 2008, the population growth rate fell from 2.2% to 1.2% in 2008.

b. FLOOD, SEDEMENTASi and water discharge (DEBIT)

Sedimentation is influenced by soil structure, Debit and Flooding are affected by the amount of water flow and rainfall.These factors are beyond the control of policy makers.

The workshop 3 focused on development of scenario based on key variables generated in the analysis stage.In addition, the workshop provide room for the stakeholders to discuss follow up plan once the scenarios are built.

5. Identifying and selecting key variables

The facilitator explained the stages in building the scenario as follow:
   a. Selection of key variables
   b. Define the state of key variables
   c.Select incompatible combination of variable' state
   d.Combine the variables and build the scenario

The selection of key variables are based on the largest rank of global strength.The number of key variables suggested by the method are 5-6 variables. These number are considered manageable combination.

From the results, the key variables were selected from variables that have the highest global rank. Several adjacent variables can be combined for instance HKADAT with ARIF, and TRAMPIL with EDUCATION. Therefore key variables agreed are KEBPEMDA, GUNATEKNO, ARIF+HKADAT, POLAPIKIR, PARTICIPATION, and TRAMPIL+ EDUCATION.

Table 4. Variables with the highest scores based on the results of the analysis

Variables	Ponderate d direct strength	Variables	Ponderate d indirect strength	Variables	Ponderate d total strength

1	KEBPEMDA	5.396542	ARIF	2.366772	KEBPEMDA	2.647688
2	GUNATEKNO	4.750754	KOMDPRD	2.212034	GUNATEKNO	2.637504
3	POLAPIKIR	3.285483	GUNATEKNO	2.09128	ARIF	2.353505
4	TRAMPIL	2.456586	PARTICIPATION	2.066407	POLAPIKIR	2.263956
5	PENDIDIKAN	2.375377	HKADAT	2.050871	PARTICIPATION	2.068545
6	ARIF	2.230215	POLAPIKIR	1.988917	HKADAT	2.011721
7	PARTICIPATION	2.000317	KEBPEMDA	1.940407	TRAMPIL	1.969867
8	KOORD	1.900302	TRAMPIL	1.856554	PENDIDIKAN	1.923682
9	KEBTRANS	1.878566	DISTPEND	1.828128	KOMDPRD	1.891671
10	HKADAT	1.781533	PENDIDIKAN	1.807014	DISTPEND	1.808215

6. Definition of the state of key variables

The facilitator explained that the state of can be described various positive and negative circumstances. The main rule in making variable's state is one state to another has to be contrast.

To facilitate this stage, the facilitator stimulated the participants with the following questions:

1. What circumstances are most desired to occur?

2. What are the most feared situation occurs?

3. What circumstances are possible to occur?

4. What rupture (extraordinary circumstance) might happen?

The participants wrote their opinion on a piece of paper and the facilitator helped grouping under the same header if similar opinions occur and clarify if the opinion has unclear meaning.

Table 5. State of key variables

No.	The key variables	A	B.	C.	D
1	KEBIJAKAN PEMDA	Policies drawn up together, and siding with the people' interest	Policy in favor of certain groups and interests		
2	GUNATEKNO	Mastery of appropriate technology and environmentally friendly in all sectors	People do not own and control technology (technological dependence	The use of environmentally damaging technologies	
3	CUSTOMARY LAW AND LOCAL Wisdom	Synergies between customary law and national law	Local wisdom and traditional laws acknowledged, and maintained for the benefit of district' image	Customary law becomes dissappear and national law is getting recognized and stronger	

4	POLAPIKIR	Environmentally sound development mindset	Opportunistic mindset and favor for group interests in land use among others the commercialization of customary law	Not thinking about the need for land use	15
5	PARTICIPATION	Participation of the community planning process to control development	Development process does not involve the community	People refused participation	Community to participate only if immediate benefit exist
6	EDUCATION AND SKILLS	Good educatuin access and skills at all levels	Lack of government attention to education	Access to education and skills in all levels are difficult and in favor of certain groups	

7. Developing the scenario

In this scenario building phase, the participants were given an initial understanding of what a future scenario and examples of future scenarios that have been made both in Indonesia and overseas.

Future scenarios is not a new method but useful tool to create a future planning. Scenarios should involve various stakeholders and known to the public to build a shared vision among the stakeholders. Here are examples of scenarios that have been made in the context of a particular country or issue.

☐ **Scenario Indonesia 2010**

1. On the Edge (Diujung Tanduk): an authoritarian government with a pro-growth policies

2. Fall into crocodile jaws: an authoritarian government with pro-government policy orientation

3. Paddling broken canoe: combination of variants of democratic system and pro-growth economic policy orientation.

4. Slow but Safe: Combination of democratic system and pro-equity policy orientation.

☐ **China 2025 scenario**

1. Regional Relations

2. Unfulfilled promise

3. *New* Silk Road

Scenario-building is done by combining the state of each of the key variables above (Table 5).Based on the above table, scenario that may result are about 2x3x3x3x4x3 = 216 combinations.To avoid the complexity of the combination of scenarios, elimination of incompatible combination is necessary. (Table 6).

Table 6. Incompatible combination of the state of key variables

No.	The key variables	A	B.	C.	D
1	KEBIJAKAN PEMDA	Policies drawn up together, and siding with the people' interest	Policy in favor of certain groups and interests		
2	GUNATEKNO	Mastery of appropriate technology and environmentally friendly in all sectors	People do not own and control technology (technological dependence	The use of environmentally damaging technologies	
3	CUSTOMARY LAW AND LOCAL Wisdom	Synergies between customary law and national law	Local wisdom and traditional laws acknowledged, and maintained for the benefit of district' image	Customary law becomes dissappear and national law is getting recognized and stronger	
4	POLAPIKIR	Environmentally sound development mindset	Opportunistic mindset and favor for group interests in land use among others the commercialization of customary law	Not thinking about the need for land use	
5	PARTICIPATION	Participation of the community planning process to control development	Development process does not involve the community	People refused participation	Community to participate only if immediate benefit exist
6	EDUCATION AND SKILLS	Good educatuin access and skills at all levels	Lack of government attention to education	Access to education and skills in all levels are difficult and in favor of certain groups	

The facilitator briefly explained how to combine the state of variables into one scenario, that is one scenario consists of a combination of state of key variables.

To stimulate the process, the facilitator asked participants the following question:

1. What is the most expected scenario to happen?

2. What is the most feared scenario to happen?

3. What is other scenarios that might happen (other than the two scenarios)?

4. What is other scenario (exceptional, extraordinary) that might happen?

16

Furthermore, these scenarios are grouped by looking at the content of each opinion. After grouping the scenario, participants were asked to review and agree on final scenarios. It generated four scenarios, namely

Table 7. Combination of key variables and scenario

The key variable	Scenario			
	1	**2**	**3**	**4**
1	A	B.	B.	B.
2	A	B.	C.	B.
3	A	B.	C.	C.
4	A	B.	C.	B.
5	A	A	D	B.
6	A	B.	B.	C.

The next stage was to write narrative on the agreed scenario. The facilitator divided the participants into four groups where each group formulated one narrative in the form of a series of stories. The story should satisfy the logic and easily understood by others, especially for general public that did not directly involved in the workshop. The groups were also asked to discuss the suitable title for each scenario. It supposed to relevant with the content of the scenario.

The brief narrative of scenario are the following table.

Table 8. Final Scenario

Scenario title	Combination of state of key variable	Brief Narrative
Langkah Serampak	1. A 2. A 3. A 4. A 5. A 6. A	✓ Policies that favor and compiled together with the community, can enhance public participation in the planning process to monitoring and supervision. ✓ access to education and skills would improve and open up horizons and mindset of the people to master the appropriate and environmentally friendly technology. ✓ Synergy between customary law and positive law supports the course of Kapuas Hulu development
Lempar koin	1. B. 2. C.	✓ This scenario describes the attitude and mindset of favoring certain groups interests so that most policies have always

sembunyi tangan (Throwing a coin but hiding the hand)	3. C. 4. C. 5. D 6. B.	✓ been biased against the certain parties and groups. ✓ In education sector has received less attention than of the other sectors. This resulted in the low technological mastery, and the technology used has caused environment destruction. Moreover, no one in the district care about the importance of land use planning. Instead of improving the society' welfare, the cost of the damaged environment increasingly eroded local revenues. ✓ The formal/positive law is widely accepted as many stakeholders perceives customary law as traditional and old fashioned product. The state of indigenous people becomes non existance and marginalized. ✓ Pseudo participation is commonly practice that is people participate if direct benefit is provided
Mendulang Emas mendapat batu (Panning the gold but gets the stone)	1. B. 2. B. 3. C. 4. B. 5. B. 6. C.	✓ Education is not accessible for all the people led by policies that mostly favor to certain group in the society. It results on more dependency of technology use ✓ Indigenous peoples have been split as a result of the weakening of customary law and indigenous knowledge that is slowly becoming obsolete. ✓ It also happening in land use planning where the stakeholders sought 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. Poverty and inequality in development encourages apathy of the public in the form of refusal to participate in any development
Makan tuba buah (Eating "Tuba Fruit")	1. B. 2. B. 3. B. 4. B. 5. A 6. B.	✓ This scenario describes opportunistic attitudes and tendencies to favor the group interests are increasingly shown especially in district policy and land use. ✓ Lack of attention to the education sector led to low levels of technological mastery. The worst, people are just being the consumers of the technology and become dependent. ✓ Indigenous peoples and customary law are recognized but their existence are just for sake of good image of the district. Similarly community participation is widespread especially for donor projects but not so much for government' project. ✓ This situation shows slow development caused by the changing policy priorities often by certain group/interest.

Follow-up plan

After finalizing the scenario, at the end of the day 3 the participants discussed follow up plan for the scenario PPA can be adopted by local governments. Various proposals had emerged and were converging on a plan to expose the PPA result to the District Secretary of Kapuas Hulu.

During the discussion it was agreed that the participants would attend a meeting. Furthermore the meeting will also be scheduled with the district parliament to share information and seek political support.

The facilitator encouraged the presentation delivered by the PPA team involved in the workshop but participants suggested that it would be better if the facilitator as a neutral

stakeholder present the PPA result to the District Secretary and participants' representative would attend the meeting.

The results of the meeting with District Secretary

The meeting with District Secretary was attended by four representatives of the PPA participants. The purpose of the meeting was to report on PPA activities have been done, submit the workshop results to the Secretary and to to get input on the follow-up direction.

The facilitator briefly explained the background of the activities, processes had been achieved so far and the results of the four scenario. As a team, the facilitator expected the results of PPA activities could be integrated into government policy.

In general, the District Secretary welcomed the initiatives undertaken by CoLUPSIA projects related to the scenarios of future development in Kapuas Hulu by 2030. Currently government is still committed to the conservation district with a focus on ecotourism. At the same time, the government is working on a revision of five-year (medium term development plan) so the government was pleased and welcomed PPA team can work together to provide input into the revision plan. In addition, the PPA can be input into one of the government program namely the regional innovation system (SID).

With regards to PPA input on the land allocation in Kapuas Hulu, the local government will pursue land use according its designation. So not all land will be converted into palm oil, considering Kapuas Hulu is still committed to the conservation district.

At the end of the meeting, the Secretary requested that any activities were communicated and notified at early manner so that the schedule can be tailored by local government.

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PPA closing rhyme
by Haji Ade Ibrahim

Asam payak buah berbau
Buat memasak si sayur ikan
Acara lokakarya di Putussibau
Tahun dua ribu tiga puluh menjadi kenyataan

</div>

Lesson learned

The workshop was successfully in bringing together diverse stakeholders, namely policy makers, practitioners, community and private sectors. In the forum stakeholders began communicate each other, to listen to the opinion of other stakeholders. At the early stage, the interaction among the stakeholders was minimum, but by the end of the workshop they could communicate freely as if they were a big family.

Participants also have different educational background that affect the discussion.Domination of some participants were inevitable. Therefore, the facilitator actively encouraged them, especially providing opportunity for passive participants to speak. In spite of this, intensive discussions might overcome the knowledge gap through the exchange of ideas between the stakeholders.

The participants appreciated the PPA method and expressed interest in following up the whole stage.The stakeholders from the government saw this method is good and would suggest the same process can be done with local government officials.

The process of analyzing was a hardest task and energy consuming, however the stakeholders learnt from each other, especially for the certain knowledge that is only mastered by particular experts.

The method has powerful tool to invite the stakeholders to sit together and to reach consensus so that when the agreement should be drawn so each stakeholder could accept the decision as a collective agreement.

Appendix

1. List of participants

A. PPA workshop series 1

Name	Dimensions of Expertise
Adhittia Egha P	Youth
Rupinus	Township and village governments
Yohanes Entungan	Empowerment of rural practitioners
Alexander Burung	Farmer
Chairuddin Ambong	Palm oil business practitioners
Indra Kumara	Forestry policy
Piet Sumaryoto	Plantation policy
Baco Maiwa	Construction supervision and legislation
Andi Juliansyah	Timber business practitioners
M Jemali	Fisheries policy
Luther	Dayak customary law
Markus Kelambu	Practitioner of infrastructure
H. Ade Ibrahim	Malay customary law
H. Abdullah HS	Practitioners fisheries
Hendra Butar Butar	Mining policy
Alex Rombonang	Conservation and border

B. PPA workshop series 2

Name	Dimensions of Expertise
Adhittia Egha P	Youth
Rupinus	Township and village governments
Yohanes Entungan	Empowerment of rural practitioners
Indra Kumara	Forestry policy
Baco Maiwa	Construction supervision and legislation
Andi Juliansyah	Timber business practitioners
Rismawati	Fisheries policy
Luther	Dayak customary law
Markus Kelambu	Practitioner of infrastructure
H. Ade Ibrahim	Malay customary law
H. Abdullah HS	Practitioners fisheries
Hendra Butar Butar	Mining policy
Alex Rombonang	Conservation and border
Rusvan Aswad	Urban spatial
Agus Darmanta	Infrastructure policy
M. Sudirman	Agricultural Policy

C. PPA workshop series 3

Name	Dimensions of Expertise
Rupinus	Township and village governments
Yohanes Entungan	Empowerment of rural practitioners
Indra Kumara	Forestry policy
Baco Maiwa	Construction supervision and legislation
M Jemali	Fisheries policy
Rismawati	Fisheries policy
Luther	Dayak customary law
H. Ade Ibrahim	Malay customary law
H. Abdullah HS	Practitioners fisheries
Hendra Butar Butar	Mining policy
Rusvan Aswad	Urban spatial
Dedy, ST MT	Infrastructure policy
Jumanang	Agricultural Policy

2. List of variables and definitions

INTERNAL VARIABLES

No.	NICKNAME	Variables	Definitions
1	**KOORD**	Coordination between sectors	The pattern of labor between the sectors with other sectors, in accordance with the duties and functions
2	**POLAPIKIR**	Paradigm	Perspective in viewing and analyzing a problem
3	**HKADAT**	Customary law	Recognition and enforcement of local and indigenous people coming into the customs territory
4	**MURID**	Number of pupils	The number of school-age children who attend school
5	**PENDPATAN**	Income communities	Income that was obtained by a certain time
6	**KESHATAN**	The level of public health	Public health
7	**AKSEHAT**	Access to Health Care	Availability of facilities and health workers in serving the needs of public health
8	**PENDIDIKAN**	Level of education	Average education held by the public
9	**KOMAPEM**	Competence of government officials	Ability in the operation of the apparatus of governance
10	**KEBPEMB**	Development policy	Direction of development to be achieved and is the result of agreements between the parties as outlined in the document development plan (central and local)
11	**DISGURU**	Distribution of teachers	Distribution of teachers in schools
12	**BDIDIK**	Cost of education	Costs to be incurred by the public for

			education
13	**FASDIK**	Educational Facilities	Number of budgets and educational facilities provided by Local Governments
14	**LAPKERJA**	Employment	Availability of opportunities for employment of the various sectors
15	**KOMLULUS**	Competence of graduates	The quality of graduates (after completion of education) in the world of work
16	**KOMDPRD**	Competence of members of parliament	Personal ability in carrying out the functions of legislation, budgeting and monitoring
17	**FISH**	Availability of fish	Fish stocks both in the wild and aquaculture are available
18	**LISTRIK**	Electricity infrastructure	Electrical facilities to provide electrical energy to the community for community needs
19	**ARIF**	Indigenous natural resource management	The procedure or practice in the use of natural resources a particular region
20	**ASEBUD**	Preservation of cultural assets	Efforts to preserve and maintain the diversity of local culture
21	**PARTICIPATION**	Community participation	Community participation in planning, implementing and monitoring, as well as enjoying and maintaining the development
22	**CTAMBANG**	Mine reserves	Availability of minerals held as capital construction
23	**KEBPEMDA**	Government policy	The rule made by the executive and legislative in governance and development
24	**INFRAJALAN**	Road infrastructure	Availability of infrastructure and road conditions in supporting the development of mobility
25	**KESLING**	Environmental health	Environmental health conditions in the village / village
26	**SANITATION**	Sanitation	Availability of environmental health infrastructure (toilets, water supply, drainage etc.)
27	**LAHANADAT**	Indigenous land management	Arrangements agreed upon by the indigenous people on ways to use land owned by indigenous
28	**TEGAKHKM**	Law enforcement	Implementation and compliance with local regulation
29	**TOLERANSI**	Tolerance between religions	Appreciate the distinction between religious beliefs that are recognized by the State
30	**PROFUSAHA**	Professionalism entrepreneurs	Managerial ability by businessman
31	**HAMA**	Pests and diseases	Intensity (quantity and frequency) attacks

			animals, insects and diseases (viruses, bacteria, fungi) that interfere with and undermine the productivity of farm
32	**LUASW**	AREA	Coverage area that can be managed administratively
33	**KEBAKARAN**	Forest fires	Intensity of forest fires intentionally or unintentionally
34	**GUNATEKNO**	Use of Technology	levels of ability ~~and~~ use of technology by the public
35	**AKTEKNO**	Access to technology	The level of ease in getting the technology available
36	**AKPASAR**	Market Access	Level of ease in obtaining and marketing products include creating market opportunities
37	**AKINFO**	Access to information	The level of ease in getting information -
38	**PAD**	Revenue	Income earned by local governments through local taxes, levies and other legal pendapatn
39	**ALOSAWIT**	Allocation of land for plantations	Designation of areas / regions for the cultivation of oil palm plantations
40	**PESTICIDES**	Use of pesticides	Use of chemicals used to eradicate pests and plant diseases
41	**MERKURI**	The use of mercury	Levels of mercury use in mining activities without a license
42	**TATARUANG**	Layout	The division of an area designated for each sector of the construction
43)	**DISTPEND**	Distribution of the population	Distribution of the population in a region
44	**AKMODAL**	Access to capital	Ease of obtaining and get venture capital
45	**KEBINVES**	Investment policy	The regulations governing investment in the region
46	**HHNK**	Non-wood forest products utilization	Utilization and marketing of NTFPs by communities
47	**SISTANI**	Farming systems	Methods used by the public for agricultural cultivation
48	**DINAPOL**	Political dynamics	Conditions and circumstances of local politics
49	**KEBTRANS**	Resettlement policy	Policy to put the migrants to the region Kapuas
50	**TRAMPIL**	Skill	Skills sourced from the talent, experience and non-formal education

EXTERNAL VARIABLES

1	**INTERNAS**	International influence	effect caused by the interaction between the upstream Kapuas district with outsiders, including international policy (EXTERNAL)
2	**HUKUMNEG**	State law	Rules and regulations set by the government which must be adhered to all citizens of the State and if the break will earn a place sanctions / penalties (EXTERNAL)
3	**JMPEND**	Population	The number of people who lived / living in an area
4	**FLOOD**	Flood	Intensity (quantity and frequency) flood in a region
5	**DEBIT**	Water discharge	Conditions the volume of water in rivers and lakes
6	**SEDIMEN**	Sedimentation	Condition of material buildup in the bottom of rivers and lakes

3. Strength of the variables (direct, indirect, total)

	Ponderated Direct strength		**Ponderated Indirect strength**		**Ponderated Total strength**	
1	KEBPEMDA	5,396541868	ARIF	2,36677243	KEBPEMDA	2,647688263
2	GUNATEKNO	4,750753819	KOMDPRD	2,212034481	GUNATEKNO	2,63750391
3	POLAPIKIR	3,285483005	GUNATEKNO	2,091280119	ARIF	2,353505275
4	TRAMPIL	2,456586376	PARTISIPASI	2,066407493	POLAPIKIR	2,263955645
5	PENDIDIKAN	2,375376909	HKADAT	2,050870594	PARTISIPASI	2,06854524
6	ARIF	2,230214987	POLAPIKIR	1,988917212	HKADAT	2,011721456
7	PARTISIPASI	2,000317397	KEBPEMDA	1,940407036	TRAMPIL	1,969867499
8	KOORD	1,900301528	TRAMPIL	1,85655367	PENDIDIKAN	1,923682472
9	KEBTRANS	1,878566053	DISTPEND	1,82812767	KOMDPRD	1,89167143
10	HKADAT	1,781532682	PENDIDIKAN	1,807014083	DISTPEND	1,808215337
11	INFRAJALAN	1,727546843	AKINFO	1,701840865	KOORD	1,729105916
12	DISTPEND	1,689156913	KOORD	1,669994627	AKINFO	1,588317457
13	PROFUSAHA	1,407630761	PROFUSAHA	1,561159507	PROFUSAHA	1,541819463
14	ALOSAWIT	1,187688455	KEBAKARAN	1,561159507	KEBAKARAN	1,399515804
15	KEBINVES	1,125178536	KOMAPEM	1,495208483	KOMAPEM	1,333465482
16	AKINFO	1,077717302	AKTEKNO	1,495208483	AKTEKNO	1,30750293
17	AKMODAL	0,923757687	DINAPOL	1,445428113	DINAPOL	1,288443121
18	HAMA	0,824783649	TATARUANG	1,39574032	KEBINVES	1,271401409
19	TATARUANG	0,760741625	CTAMBANG	1,367994465	TATARUANG	1,259992869
20	KEBAKARAN	0,703815381	LUASW	1,361653301	KEBTRANS	1,212306909
21	KOMAPEM	0,659826919	KEBINVES	1,301294514	CTAMBANG	1,19770593
22	AKPASAR	0,659826919	KEBPEMB	1,277790434	LUASW	1,192486839
23	PESTISIDA	0,659826919	TEGAKHKM	1,183075819	ALOSAWIT	1,135578624
24	DINAPOL	0,659826919	AKMODAL	1,126583677	AKMODAL	1,094033064

No	Name	Value	Name	Value	Name	Value
25	KOMDPRD	0,603270326	ALOSAWIT	1,112460641	INFRAJALAN	1,080851943
26	AKTEKNO	0,527861535	KEBTRANS	1,046362548	KEBPEMB	1,076243909
27	KEBPEMB	0,517304305	LISTRIK	0,913651757	TEGAKHKM	1,043715167
28	CTAMBANG	0,475075382	INFRAJALAN	0,913651757	LISTRIK	0,769694165
29	LUASW	0,475075382	KOMLULUS	0,664537103	PENDPATAN	0,572130634
30	TEGAKHKM	0,469210254	PENDPATAN	0,616817307	KOMLULUS	0,533674665
31	PAD	0,422289228	PAD	0,531361927	PAD	0,513148717
32	PENDPATAN	0,412391825	LAHANADAT	0,413781092	AKPASAR	0,445342307
33	MERKURI	0,395896152	AKPASAR	0,398998385	HAMA	0,443360491
34	SISTANI	0,366570511	HAMA	0,361276359	LAHANADAT	0,352878758
35	MURID	0,339339558	ASEBUD	0,324721177	ASEBUD	0,284626488
36	IKAN	0,237537691	FASDIK	0,298213326	FASDIK	0,278888051
37	LISTRIK	0,237537691	BDIDIK	0,249785521	SISTANI	0,25059506
38	FASDIK	0,197948076	SISTANI	0,219599356	PESTISIDA	0,250159999
39	HHNK	0,182721301	IKAN	0,213772994	BDIDIK	0,227701191
40	AKSEHAT	0,175953845	PESTISIDA	0,174393758	IKAN	0,219978094
41	DISGURU	0,150817582	HHNK	0,14726584	HHNK	0,155501756
42	SANITASI	0,150817582	MURID	0,088359504	MURID	0,127140141
43)	BDIDIK	0,131965384	MERKURI	0,05522469	MERKURI	0,094875496
44	ASEBUD	0,131965384	LAPKERJA	0,044776776	DISGURU	0,049262277
45	LAHANADAT	0,131965384	DISGURU	0,033134814	LAPKERJA	0,037671153
46	KOMLULUS	0,065982692	AKSEHAT	0,01060314	AKSEHAT	0,027544499
47	KESHATAN	0,029325641	SANITASI	0,009817723	SANITASI	0,025114102
48	KESLING	0,029325641	KESHATAN	0,002548832	KESHATAN	0,006099139
49	LAPKERJA	0,018852198	KESLING	0,002366772	KESLING	0,005769456
50	TOLERANSI	0	TOLERANSI	0	TOLERANSI	0