LAKE SINGKARAK MANAGEMENT ACTION PLAN: PROVISION OF ENVIRONMENTAL SERVICES (PES) CONTEXT

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I. INTRODUCTION.

Rewarding upland poor for environmental services (RUPES) is a kind of activity which trying to find a basis to encourage local people in targeted area to take initiative in provision of environmental services (PES) at local level. The involvement of the local people in PES expected to create positive impacts in the sense that it would give them income earning opportunities, create local ownership and responsibility for environmental management, and sustaining the PES themselves. In order to realize these impacts there is a need to create a framework which could facilitate actions to be taken by local people. This paper presenting action plan for PES in Singkarak which formulated based on previous research.

The research has been conducted with the following steps: **First**, reviewing the rules and regulations related to the environmental management in general and provision of environmental services in particular both at national and local level. **Second**, consultations/in-depth discussions with National Power Company (PLN), relevant government institutions both at provincial and kabupaten levels, and with village (nagari) institutions. **Third**, integrating results of first and second steps. Fourth, clarification and feedback from stakeholders. Fifth, formulating proposed institutional frameworks and strategies for PES in Singkarak (please see Figure 1).

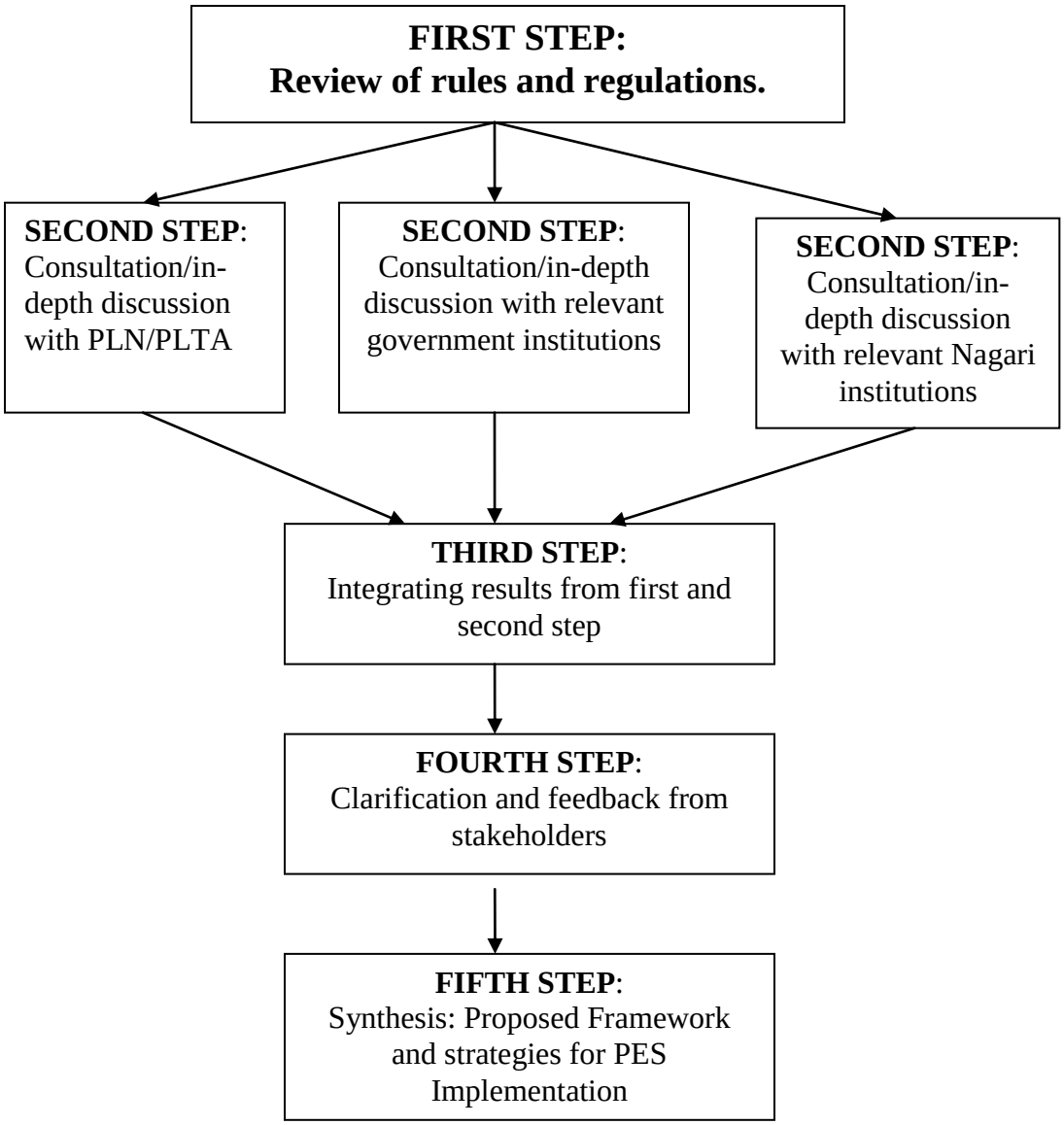


Figure 1: Steps in formulating proposed framework and strategies for PES implementation in Singkarak.

II. LAWS AND REGULATIONS RELATED TO RUPES.

2.1 National Level.

There are at least five laws and regulations at national level related to RUPES.

- UU No. 23/1997 on Environmental Management
- UU No. 41/1999 on Forestry
- UU No. 34/2000 on the amendment of UU No. 18/1997 on Local Government Tax and Revenue
- PP No. 25/2002.
- UU No. 32/2004 on Local Government.
- UU No. 33/2004 on the Balance of Budget between Central and Local Government.
- PP No. 34/2002 on Forest governance, preparation of forest management planning, forest and forest area usage.

Reviews of the related laws and regulations indicated that the existing laws and regulation were not mentioned anything specific about rewarding the people (the poor) for their environmental services. However, there are a number of relevant articles that stressing the important of people participation, empowerment of local capacity and facilitation, and commitment to finance initiative for environmental conservation. All of these articles can be used as the basis to device an institutional mechanisms for RUPES. The following are some of the main points from the articles:

- The people have a broad and equal opportunity to involve in environmental management. These can be achieved through the following ways: (1) empowerment, improvement of self-help ability, and partnership; (2) develop pioneering capability of the people; (3) develop the responsiveness for social control; (4) provision of opinion and advice; and (5) submission of information and report. The government would develop financing mechanisms to support environmental conservation initiative in the context of existing laws and regulations in order to enable the use and development of natural resources for the benefit of the people. In addition to that, the government also has an obligation to realize, develop, expand, and

improve the partnership among people, private sector, and the government in order to conserve carrying capacity of the environment (please see Articles 7, article 8 (2) e, and article 10 (c) of UU No. 23/1997 on Environmental Management).

- In the effort to rehabilitate forest condition, the people may request facilitation, services, and support to NGO, other parties, and the government (please see UU No. 41/1999 on Forestry).

- The revenue from surface and groundwater tax has to be given to Kabupaten and Kota government at least 70%. The use of the revenue from the surface and groundwater tax is determined solely by the Kabupaten and Kota government [please see Article 2A, sub articles (1)c and (5) of UU No. 34/2000 on the amendment of UU No. 18/1997 on Local Government Tax and Revenue].

- In the case of forest grown on the land with title (land rights), will be converted to be conservation or protected area, the government may give incentive to the rights holder(s). Central, provincial, and Kabupaten or Kota government obliged to develop forest with land title through institutional development [see PP No. 34/2002 on Forest governance, preparation of forest management planning, forest and forest area usage, Article 69 (4) and Article 70)].

- The main roles of local government are to democratically protect the interests and improve welfare of the people. The welfare is measured by using human development index (HDI) with three main indicators: income, health, and education. According to the Law No. 32/2004, the local government performed the tasks which are under their authority except those of the authority of central government. The tasks performed by local government are categorized into two: mandatory and optional. The decentralization of the government tasks to local government (both province and district) is accompanied by fund, staff, and supporting infrastructures necessary to perform the tasks. The mandatory tasks include planning, utilization, and control of land use; and environmental control and management (please see Chapter III, articles 10 – 17, UU No. 32/2004 on Local Government).

- The local government's share of reforestation fund (Dana Reboisasi) is to be used for forest and land rehabilitation at local level (please see Article 16, UU No. 33/2004 on The balance of Budget between Central and Local Government).

- Reforestation (reboisasi) fund is used only for financing reforestation and forest rehabilitation activities and other supporting activities. The forest rehabilitations is done through the following activities: reforestation, re-greening, maintenance, increasing plant diversities, or application of conservation techniques in critical and unproductive lands. Re-greening activities are done through the following activities: the development of forest with land title, development of forest estate in relation to sustainability of forest, and development of agroforestry and conservation farming [please see PP No. 25/2002 Articles 16 (1) and Article 17 (1) and (3)].

There are two major points related to RUPES from the provisions in the laws and regulations stated above. First, different law and regulation provide different aspect of environmental management and provision of environmental services.

Second, there are articles that mandated the government to finance the rehabilitation of forest and land, which means that the government could also operate as a buyer of environmental services provided by local people or institutions.

Third, the articles did not mentioned anything specific about provision of reward for environmental services, however, some articles did provide room for devising a mechanism whereby local initiative can be given reward for environmental management and provision of environmental services (RUPES).

2.2 Provincial Level.

At provincial level there are two important legal products related to RUPES: (1) Provincial Regulation No. 4/2004 on the Surface and Ground Water Tax (Pajak Air Permukaan dan Bawah Tanah); and (2) Governors Decision No. 27/2003 on the Establishment of West Sumatra Provincial Council for Water Resources Management (Dewan Daerah Pengelolaan Sumberdaya Air

Propinsi Sumatera Barat – DDPSDA Propinsi Sumbar). The following are a number of articles from both regulations related to RUPES.

On the surface and groundwater tax:

- Except for personal, social, and subsistence purposes all others users have to pay water tax collected by provincial government.

- The tax collected will be distributed between provincial government and district/town governments. The provincial government has 30% share while the districts and town got 70% share. The district(s) and/or town(s) where the water source located got 35% share, and the rest will be distributed equally among the remaining districts and towns in the province.

On the Provincial Council for Water Resources Management (DDPSDA).

- DDPSDA is a coordinating forum at provincial level which consist of water resources management stakeholders (both government and non-government institutions).

- DDPSDA has the authority to make decision on technical policy related to water resources management (e.g. conservation plan, use and development, making priority of use, integrated river basin management, etc).

- The tasks of DDPSDA include provide consideration to the governor and drafting policy related to water resources management.

Those articles indicated that: (1) both the provincial and districts government has a source of income which could be used to finance the provision of reward for the upland poor for their environmental services (RUPES); (2) there is an institution exist to play role as the regulator for RUPES.

III. GOVERNMENT (AT DIFFERENT LEVELS) AND PLN (NATIONAL POWER COMPANY) AS POTENTIAL BUYERS FOR PROVISION OF ENVIRONMENTAL SERVICES (PES).

From the reviews of the laws and regulations it appeared that there are at least two potential buyers for the environmental services provide by local people or institutions. The first is the government agencies related to natural resources and environmental management. This is part of their compulsory duty (according to UU No. 32/2004). The implementation of this duty is also supported by legal provisions in other related laws and regulations. The second is the private sector especially those directly related to the use of water as an input in their activities. This section will specifically give attention to the private sector in this case is the National Power Company (PLN) which responsible for operation of hydroelectric power plant at Singkarak Lake.

The assessment of PT. PLN/PLTA as potential buyer concentrated on four issues, namely: community development (Comdev) program; conflict between PT. PLN/PLTA with other water users; the payment of surface water tax; and perception on the role of the government agencies in the past. The following section provide description of those issues.

3.1 Community Development Program: The Strategy and Organization.

Prior to 2003, the Comdev strategy is more on responding to the requests came from the community as well as from the local government agencies. The concept of the community itself was not well defined. Request for financial assistance from Comdev Program could come from any part of the community in the working area of PT. PLN. The activities proposed also vary and may not have a close relationship with land and forest conservation. The requests sent directly to PLN office with or without endorsement from local governments at different level (i.e. village, sub-district, and/or district). Local government agencies were also submitting proposals for financial assistance from Comdev Program. The achievement from the activities organized both by communities and local government agencies usually could not be evaluated. Part of it because there was no framework, procedures, criteria for selection of the proposals, and indicators of achievement agreed upon for this purpose.

Since 2003, there is an effort by PT. PLN to refocus its Comdev Program. PT. PLN in cooperation with LPM Unand and UBH trying to develop a five year plan which now at the stage of surveying of local condition and identifying opportunities for Comdev activities. The next stage will be conducting focus group discussions. However, it is still not clear yet the design of future Comdev Program. There is an impression that the effort is limited to encourage that the proposal for Comdev activities should come from the community themselves as a group not from individuals or other agencies. So that direction still not very clear. PT. PLN expected that a much clearer format can be formulated whereby PT. PLN could concentrate as one of the water user and not duplicating the role of the government. In this sense the cooperation with Unand and UBH may not move that far. Therefore, there is a chance by RUPES activities to fill in this gap. Between 2001 – 2003, PT. PLN/PLTA has allocated more that 2.8 billion rupiah for financing community development activities from which less that 25% used for financing activities related to conservation, mitigating environmental impact, and research related to environmental management. From the current strategy and organization of Comdev program it can be summarized that:

- PT.PLN/PLTA has regularly allocated some amount of fund for the purpose of financing community development activities.

- However, the Comdev program was more focus toward developing a "good neighborhood policy" rather than to environmental management related activities, therefore, there is a room to refocusing the activities.

- There is no standard procedure for requesting the Comdev fund and likewise there is no criteria to assess the achievement.

All of these indicated that: (1) there is fund available to be used for financing community initiatives ---including those related to environmental services provision---, and (2) a possibility to develop a framework whereby the Comdev fund can be used in such a way that it could provide incentive to the community to do organized activities related to environmental management and provision of environmental services.

3.2 Conflict Between PLN/PLTA and Other Water Users.

The main source of conflict between PLN/PLTA and the communities was water availability and allocation during dry and rainy seasons. During dry season, water level will be decreased an affecting various local economic activities (such as fish culture), while during rainy season the availability of water would exceed the demand and might caused flood and washed away the fish cages installed along the river/canals. It indicated that there is a need to manage water level at the lake/reservoir and regulate water allocation or discharge flow. Because there was no clear framework (even though there is committees set-up to deal with the problem) the conflicts arises were dealt with in ad-hoc manner.

On the other hand, it is recognized that the water level affected by the land and forest conservation at the catchments area but less attention was given to this matter in the Comdev Program. Most of the lands in the catchments area are under various types of ownership rights (i.e. ulayat nagari, ulayat suku, ulayat kaum, private land). This means that attention needs also to be given to the conservation of land and forest in the catchments.

PLN seems to agree with the role as a buyer for environmental services that will provided by the community in the catchments area.

3.3 Surface Water Tax.

PT. PLN has paid surface water tax to the Provincial Government since 2002. The payment is done on three-monthly basis. The water tax is counted based on the rate of Rp. 5/Kwh, and the amount paid were fluctuated depending on the amount of Kwh produced. The amount of Kwh produced is depended on the water availability which can be used to operate the turbines. PLN has paid Rp. 10 billion since the mid of 2002 up to May 2004.

The water tax was shared among the provincial and district government. The was also some amount that has distributed to the village (nagari) governments around the lakes. (Further information on this, need to be obtained from the respective level of governments).

3.4 On the Roles of Government Agencies in the Past.

PLN expected that there will a direction from government for the Comdev Program, but rarely the got it. So, PLN has to handle it by itself. The initiative to cooperate with universities is one effort by PLN to develop a more responsive Comdev Program which then will be communicated to the government. PLN has maintained a good communications with the governments, however, in term of action not much have been achieved. Part of it may be because of coordination problem among government agencies themselves (it need to be elaborated more with the government agencies).

There is a feeling that PLN has to perform the function as regulator and operator (which theoretically are not their function) as well as user (the position they would like to have with associated obligations and rights), which they would like not to be trapped in that situation.

IV. PROPOSED INSTITUTIONAL FRAMEWOK FOR RUPES.

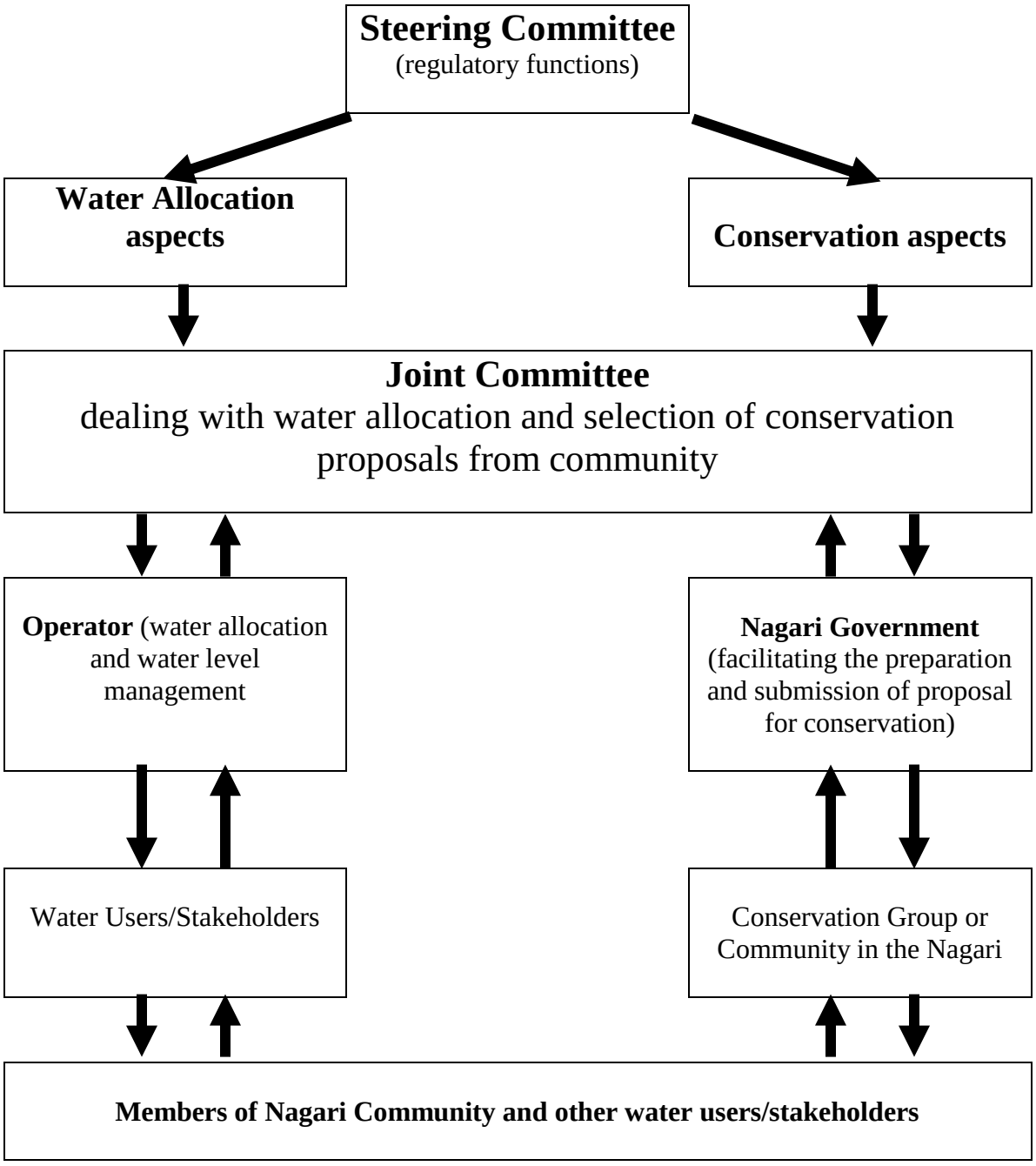
4.1 Initial Institutional Frameworks for RUPES.

There has been an effort to formulate tentative (initial) institutional frameworks/model for RUPES based on the discussion and past experiences. The objective was that to organize the preliminary information from the legal aspects and the experience of PLN/PLTA. By having the initial frameworks it would be much easier to get feed back from the Nagari and the relevant government institutions.

The institutional arrangements formulated with the following principles:

- Regulatory, operation, and user function need to be separated;
- There must be a participatory approach in the stakeholder interaction;
- Moving from supply driven approach toward demand driven approach in both conservation of land and forest in the catchments and water allocation (especially in dry season), and
- People welfare considerations (income, job opportunities, etc).

A tentative model of institutional frameworks that has been formulated is presented in the following diagram. Basically, the frameworks trying to create a "market" for the environmental services provided by the local people. In this sense, the local people will play a role as seller of the environmental services while the government institutions and private sector (in this case PT. PLN) as the buyers. The relationship between the seller and the buyers is structured based on regulations provided by a steering committee. The local community/institutions will take initiative to prepare a plan for the provision of environmental services (in this case is rehabilitation of forest and land/conservation activities and submitted it to a joint committee. This joint committee consists of a government agency assigned for this purposes from each administrative governments. This joint committee will prepare an annual meeting where the proposal from the community will be evaluated and the "price" for the services is negotiated. In a later stage, when field activities already carried out, this committee will play a role for progress monitoring and evaluation (annual joint audit of annual progress as the basis for the next year agreement).


Steering Committee
(regulatory functions)
Water Allocation aspects
Conservation aspects
Joint Committee
dealing with water allocation and selection of conservation proposals from community
Operator (water allocation and water level management
Nagari Government (facilitating the preparation and submission of proposal for conservation)
Water Users/Stakeholders
Conservation Group or Community in the Nagari
Members of Nagari Community and other water users/stakeholders

V. FEED BACK FROM NAGARI AND GOVERNMENT AGENCIES, AND THE IMPROVEMENT OF THE INITIAL INSTITUTIONAL FRAMEWORKS.

The institutional framework that has been developed was discussed in roundtable meetings with Nagaris (Panyinggahan and Muaro Pingai) and with relevant governments agencies both at local and national level (please see Attachments for the presentation materials). The following are points raised during the meetings.

Feed Back from Nagaris.

- The re-greening activities in the past tended to fail because the decisions on the design of the program and its implementation were made unilaterally by government agencies. Decisions on the type of plant (tree) to be planted and when to be planted made by project without consulting the community. The community only expected to involve in the implementation as wage labor. In addition to that it did not concerned with income generation, there was no clarity of ownership, and access road was not constructed which make it difficult for the community to give proper maintenance activities to the trees planted.

- The community did expect that a kind of bottom-up process and the involvement of the Nagari community and Nagari government in the planning and implementation would help in achieving the objective of the activities. In this regard, they see that the model proposed sufficiently accommodated their aspiration.

- However, the model will work well if:
    - (1) other projects (from various government agencies) would also follow similar approach. It was because in the past the agencies dealing with natural resources management and conservation tended to work on their own. If two or more projects implemented in different ways, then incentive to encourage community participation will be less.
    - (2) there must be a transparency and a clear roles of community leader and local organization.

- (3) considering also the interest of the community to earn income while handling the re-greening activities. In this relation they proposed that this model also include an income generating aspect such as support for cash crop farming while taking care the tree planted or livestock activities.
- (4) there are rules and regulation at local level regarding land ownership and use; natural resources and environmental management; and distribution of benefits from the payment of environmental services.

- There is already local capacity to produce seedlings of various type of trees. However, the re-greening projects implemented were not bought the seedlings from local sources, rather from outside. The model, from their point of view would enable them to use the seedling from the local source, creating market for local product.

Feed Back from Relevant Government Agencies.

The results of the assessment and the initial institutional frameworks have also presented and discussed with relevant government agencies at local level and national level[1]. The following are the main point raised in the discussions.

- There is a need for a regulation and guidelines related to the relationship between upstream and downstream in a watershed or river basin.

- The role of adat community need to be taken into account and a reward system must be based on the land tenure system and rewarding mechanisms for the rights holders must be clear.

- Roles and relationship among institutions involved in the institutional frameworks need to be made clear such as NGOs.
- The institutional framework is in line with the laws and regulation, however, the existing bureaucratic procedures and mechanisms may not sufficiently supportive to the implementation of the frameworks.

[1] Presentation and discussion have been done with BPDAS in November 2004 and with relevant government agencies from a number of provinces in Indonesia in seminar hold by Directorate General of Bina Bangda, Ministry of Home Affairs in Jakarta, December 2004.

Therefore, there is a need for a kind of adjustment and local community need to be informed properly about the reward mechanism.

- If a reward mechanism is to be implemented it is suggested that it will be implemented at a nation wide scale.

Based on the feed back from the nagaris and relevant government agencies the initial institutional framework was revised. The revision intended to make the arrangements clearer. The following diagrams (Diagram 1 and Diagram 2) presented the revised framework.

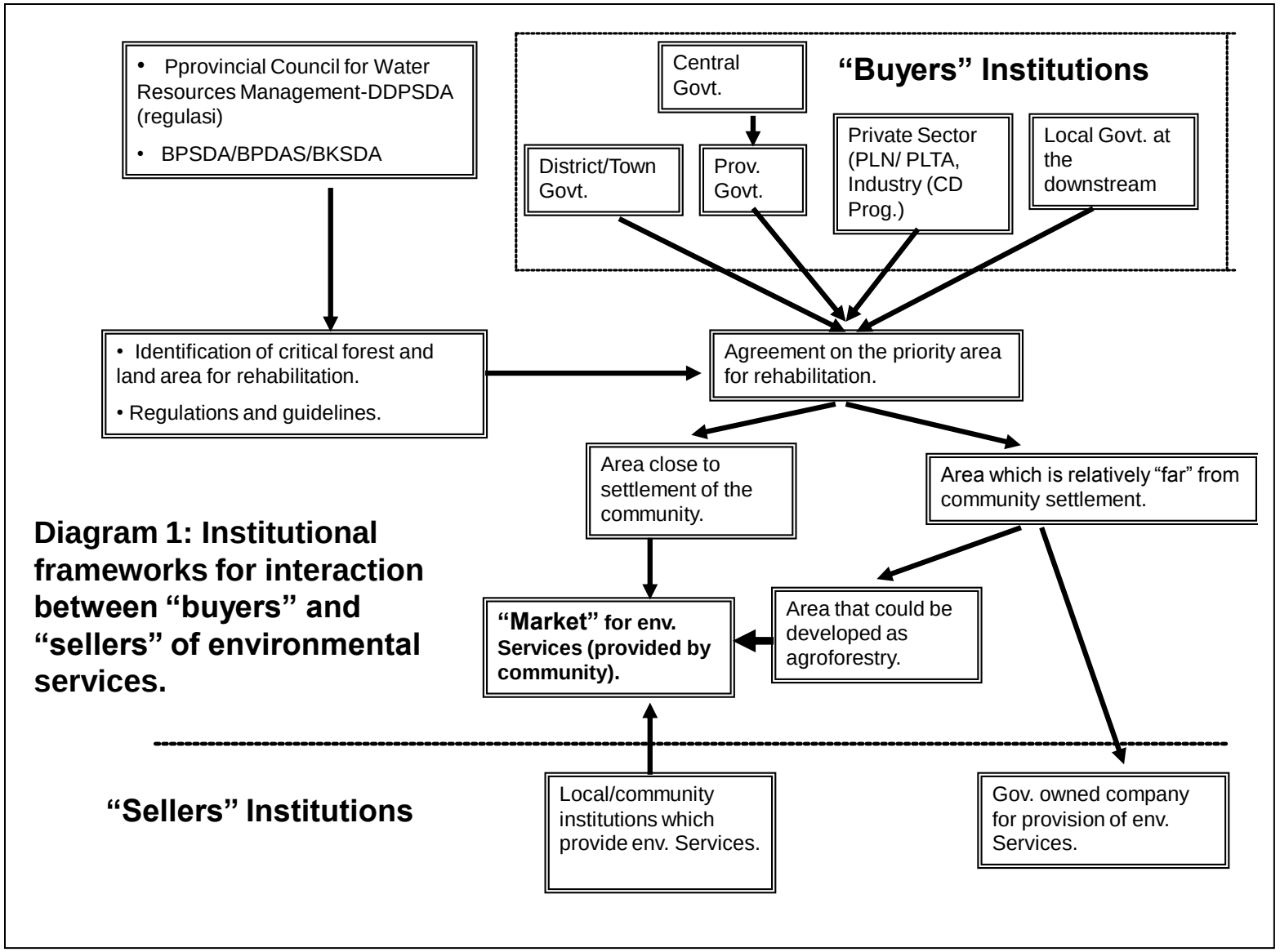


Diagram 1: Institutional frameworks for interaction between "buyers" and "sellers" of environmental services.

Diagram 2: INTERACTION PROCESS BETWEEN THE "BUYERS" AND "SELLERS" OF ENVIRONMENTAL SERVICS

