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Fragmented dual patrons: Analyzing regional bureaucracies' task and the coalition on governing Jeneberang watershed landscape

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Abstract. The research investigates actors' power on Jeneberang watershed management. By using bureaucratic politics framing, we found that central government actors' patron much more drives the power. It is also found that dominant information and national budget incentives are used to segregate a dual coalition, such as watershed-based coalition under Ministry of Environment and Forestry (KLHK) patron and dam - river basin management coalition under the Ministry of Public Works and Public Housing (PUPR). The provincial government is trapped in these two major coalitions; they can not disburse these two strong patrons. These strong dual fragmentation coalitions also lead to the issue of comprehensive uncoordinated on managing a watershed landscape.

1. Introduction

Jeneberang watershed landscape consists of upstream, midstream, and downstream parts located in three districts in Sulawesi Selatan province, Gowa, Takalar, and Makassar [1]. Gowa is the largest upstream areas, while Makassar city is the upstream areas which are the biggest areas getting the benefit, as the capital of Sulawesi Selatan province. In the upstream watershed, Ministry of Environment and Forestry (KLHK) has the responsibility for managing the sustainability areas. In the midstream, essential dam infrastructure was developed and is maintained as the resources for irrigation and electric power resources that almost benefit for Makassar city at downstream. During the rainy season, the Jeneberang river once overflowed, as happened in December to January 1975 which caused almost two-thirds of Makassar city to be flooded. The emergence of inundation areas has made the government build dams to prevent flooding. This dam is named the Bili-Bili DAM, which is built and maintained by the Ministry of Public Works and Public Housing (PUPR) as part of their responsibility on managing the river basin sector. The benefits of the construction of the Bili-Bili DAM are the control of the Jeneberang river flood, the supply of drinking water, air industry, irrigation water, and hydroelectric power plants [2]. The source of funds for the construction of the Bili-Bili Dam is obtained from the loan OECF. The Bili-Bili DAM has the benefit of controlling the Jeneberang river flood from the discharge of 2,200 m³/sec to 1,200 m³/sec. With 50-year return period flood control, provide raw water of 3,300 m³/sec of irrigation water services, hydropower with an installed capacity of 20.1 MW, water sports and fisheries [3].

The above context has put KLHK and PUPR as the central patron for their both regional agencies forming the coalition to deliver their program. In this research, we will analyze detailed bureaucratic contestation among actors on delivering their mandate, forming the coalition, and deploy their interest.



Our main framing that bureaucracies are divided into two main categories: it is the administrative unit or implementing agencies [4]. These bureaucratic politics on governing watershed landscape is needed theoretically to see answer the call for research gap on polycentric governance of watershed politics analysis [5].

2. Methods

We used bureaucratic politics framing [6,7] on measuring actors and delivering their mandate and making a coalition. To collect empirical material, we conduct interviews [8] with related actors, observation [9], and content analysis of related documents [9]. Observation is done by using authors experiences on involving in practical watershed landscape forum in the region. Data collection was held in 2017. Observation and interviews are done to identify actors and coalition, while content analysis is used mainly to analyze formal task and fragmented governance system of Jeneberang watershed in Indonesia. Legal law (*Undang Undang*), Government regulation (*Peraturan Pemerintah*), Ministerial regulation (*Peraturan Menteri*) and other regional related government regulations are our main documents to be analyzed.

3. Results

3.1 Dual governance of watershed management landscape bureaucracy

3.1.1 In the upstream sector

In the upstream areas, we hypothesized that upstream is located as preserving forest areas which refer to forest governance in Indonesia. As Sahide and Giessen [10] mention that the current structure of forest governance in Indonesia derives from the Dutch colonial era when it was assumed that forest governance should be divided into at least two basic features, namely *bestuur* (management) and *Beheer* (administration). Table 1 provided our summary of our content analysis came from legal jurisprudence of forest governance in Indonesia. This governance is laid out on the fragmented dual land system [9] that forest areas in under forestry ministerial administration. It is the minimum requirement for administration and management in Indonesia's forestry governance system, in which here, interpreted as watershed upstream governance.

Table 1. The fragmented forest sector governance in Indonesia

Administration	Management
Regulating the domestic ratification of international principles, norms, and rules related to forest administration and management, as well as regulating domestic principles of forest management (such as transparency and accountability)	Forest management plan (on-site administration and management planning)
Allocating budget for national forestry sector program	Forest utilization
Forestry planning (macro-planning)	Forest rehabilitation
Regulating the area and issuing forest use permits (the process of designating a forest area)	Forest protection
	Forest harvesting

They are regulating the management system (labor issues, tenure issues, dispute resolution mechanisms, transportation of products, and a system for tracing forest (timber) products).	A system for tracing forest products Forest conflict management
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3.1.2 In the river-basin sector (middle stream)

In the river basin sector, it is seemingly simple that only governing river basin due to the mandate that water resources management is under the authority of the central government, however, it is complex due to it is also asked to synergize with the regional government (provincial, regency/city governments, in this case, the government of South Sulawesi Province), as well as the strong connection of river basin management to other sectors e.g. overlapping of watershed definition between forestry administration and river basin administration. Table 2 below summarizes our legal document analysis of river basin governance

Table 2. The fragmented river basin sector governance in Indonesia

Administration	Management
Macro planning and policy, including preparation of water resources management patterns and water resources management plans in the river area	Detailed (project/programmatic based) river planning e.g. feasibility studies and technical planning/design/ development of water resources
Monitoring and evaluating policy and supervision	Preparation of feasibility studies and technical planning/design/ development of water resources;
Allocating budget and implementation supervision of river basin management sector	water resources management which includes conservation of water resources, e.g., urban drainage management; Management of the hydrological system; utilization of water resources, and control of the destructive power of water in the River Region, operation and maintenance of water resources in the river area

3.2. Coalition in the upstream sector: KLHK patron

We found that the coalition in the upstream sector is lead by BP DAS Jeneberang, a regional agency of the central government of KLHK ministerial in that mandated in administering and implementing watershed maintenance. Starting from this main actor, they vertically coordinated with Provincial forestry agency working with other actors. Table 3 below express our identification of actors coalition in Jeneberang watershed

Table 3. Actors identification of upstream governance

Actor/institution	Type of institution			
	Geographi- cal formal scoping patron	Administra- tion governance	Managem- ent governanc e	Multi- Stakeholder actors
<i>Balai Pengelola Daerah Aliran Sungai (BP DAS) Jeneberang</i> – Regional agency of KLHK on managing Jeneberang Watershed	C	√√	√	
Dinas Kehutanan Pemerintah Sulawesi Selatan – Provincial forestry agency	P	√√		
Forum DAS Jeneberang – Jeneberang watershed forum	C-P			√√
NGOs and local university	P			√√
KPH Jeneberang – Jeneberang Forest Management Unit	P		√√	

Remark: √ : half type

√√ : full type

P : Provincial government and patron

C: Central government and patron

C-P: Central patron but followed by provincial support

Regional agency of KLHK on managing Jeneberang Watershed (BP DAS Jeneberang)

BP DAS Jeneberang is the regional agency for KLHK under forest protection bureaucracy. Therefore, in the recent government, they enhance the name with Jeneberang Watershed Agency and Protection Forest (*BPDAS-HL Jenneberang or Balai Pengelolaan Daerah Aliran Sungai dan Hutan Lindung Jenneberang*). This institution is a technical implementation unit for watershed management that is responsible for carrying out the planning, implementation of forest and land rehabilitation and soil and water conservation, institutional development, control of damage to inland waters and evaluation of watershed management based on several statutory regulations contained in Article 2 of the Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number: P.10 / Menlhk/Setjen/ OTL.0/1/2016. The main partner of this agency is the Provincial forest agency (*Dinas Kehutanan Provinsi*).

Provincial forestry agency (Dinas Kehutanan Provinsi Sulawesi Selatan)

The Provincial Forestry Service is a regional government responsible for implementing several studies of watershed management, as the consequence of decentralized forestry sector on production and

protection forests types in Indonesia. The Forestry Service requests protection, preservation, and management of forest resources, as capturing watersheds

Jeneberang Forest Management Units (KPH Jeneberang)

KPH Jeneberang or Jeneberang Forest Management Unit is the implementing unit of forest operation that governed by Provincial governed. This should be lead by *Dinas Kehutanan Provinsi*. In South Sulawesi, there are two FMUs related to Jeneberang areas such as KHP Jeneberang I and KPH Jeneberang II. Both of them are mandated to rehabilitate and managing forest protection including watershed management issues

DAS Jeneberang forum

This forum is established under BP DAS Jeneberang's coordination and guideline. BP DAS Jeneberang is allocating budget for some meetings for this forum. The forum mostly consists of local universities, NGOs, and forestry service agency. This forum has no strong legal jurisprudence backup on coordinating and have a very small budget for meeting operationalization from BP DAS Jeneberang. It is expected that Forum DAS conduct study, coordination, consultation and communication in realizing integration in the planning, implementation, control, monitoring and evaluation stages of the watershed which is used as input to stakeholders in making decisions both to the executive and legislative at the central and regional levels

NGOs, local university

NGOs and local university are also somehow as a part of Forum DAS Jenebreang, but it also can be categorized as one separated actor entity. This actor entity is much more independent on their involvement in forest management advocacy, such as rehabilitation, illegal logging, and social forestry in the upstream areas.

3.3. Coalition in the river basin sector: PUPR patron

We found that the coalition in the river basin sector is lead by BBWSPJ, a central government PUPR agency in the region that mandated in administering and implementing watershed maintenance.

Table 4. Actors identification of the river basin governance

Actor/institution	Type of institution			
	Geographi cal formal scoping patron	Administra tion governance	Managem ent governanc e	Multistakehol der actors
<i>Balai Besar Wilayah Sungai Pompengan Jeneberang (BBWSPJ) - Regional agency for Pompengan Jeneberang river management</i>	C	√√	√	
<i>Dinas Pengelola Sumber Daya Air Provinsi (DSDA)- Provincial water management service</i>	P	√√		

<i>Dewan Sumber Daya Air (DSDA) - Provincial Water Resources Council</i>	C-P	√	√√
NGOs and local university	P		√√
<i>Pengelola DAM Bili-Bili – Task force unit for Bili Bili Dam management</i>	C	√√	

Remark: √ : half type

√√ : full type

P : Provincial government and patron

C: Central government and patron

C-P: Central patron but followed by provincial support

Regional agency for Pompengan Jeneberang river management or Balai Besar Wilayah Sungai Pompengan Jenebarang (BBWSPJ)

BBWSPJ or Regional agency for Pompengan Jeneberang river management is the regional PUPR agency at the Jeneberang river administration and management. This regional agency is directly related to the funding and management of the Bili-Bili DAM under on supervising the operations and maintenance of Water Resources Pompengan Jeneberang task force unit or familiarly called *OP Satker*

Provincial water management agency (Dinas Sumber Daya Air, Cipta Karya dan Tata Ruang Provinsi Sulsel (DSDA)

DSDA agency is under provincial government institution. DSDA service has a role in managing, regulating, and coordinating Water Resources in South Sulawesi according to Governor's Decree Number 2938 of 2000. DSDA Service is specifically in the area of Rivers, Lakes, and Reservoirs included in those not handled by PUPR. PSDA received guideline and instruction from the governor, but, it is also mandated to coordinate and synergize their program with PUPR - BBWSPJ

DAM Bili-Bili management task force (OP Satker)

It is a (*task force*) level under BBWSPJ - PUPR, This is a daily direct unit to maintenance Bili-Bili Dam. To support its daily activity, this task force is also mandated to coordinate with several institutions that directly utilize Bili Bili Dams such as Water service management of Makassar city (Dinas PDAM Makassar), Hydroelectric Power Plant unit (PLTA Bili-Bili), DSDA province and DSDA Gowa district. There are three forms of Bili-Bili DAM management activities handled by the OP Satker, namely periodic maintenance, routine maintenance, and routine operations.

The Provincial Water Resources Council (Dewan Sumber daya air provinsi)

The function of the Provincial Water Resources Council based on the national and provincial regulations are coordinating related parties (i) to integrate multiple policies and the achievement of understanding between sectors between stakeholders and interests in water resources management at the provincial level, (ii) to integrate and to align of interests between sectors, between districts and between owners interest in managing water resources at the provincial level, (iii) to monitor and evaluate the implementation of water resources management policies at the provincial level, (iv) to actively making consultation with relevant parties for the integration of hydrological, hydrometeorological and hydrogeological information system policies at the provincial level, (v) to monitor and evaluate the implementation of hydrological information system policies, hydrometeorology and hydrogeology at

the provincial level. The member of this council is coming from different government sectors, private and civil society. The member will be recognized by the governor

NGOs, local university

NGOs and local university are also somehow as part of Provincial Water Resources Council, but it is also can be as one actor entity. Local NGOs and universities are advocating water resources preservation and another related issue.

4. Conclusion

4.1 Strong fragmented dual patron coalition

To form multi-stakeholder backup, both PUPR and KLHK coalition using their strong national budget through their regional agency informing the multistakeholder forum. However, PURP with BBWSJP is more strategic due to their fix budget for Provincial Water Resources Council. It is different from Forum DAS allied with BP DAS Jeneberang - KLHK that only provide a small budget.

In the mandatory task character, it is very hard to link this river basin and watershed as compact coordination. It can be seen by their different definition of 'watershed' or 'critical watershed', both patron has different definition and approaches.

Dominant information patron from leading sector both PUPR and KLHK coalition is making their ally is dependent on this coalition patron. Dominant information could be on the centralization of regulation system, budgeting information system, and project-based information management system.

BBWSJP as the lead of PUPR coalition is having an only strong connection with forests actors through the development of the arboretum project. It is a botanical collection composed exclusively of trees that will be determined the species by Provincial Forestry Agency or other forestry agencies mandated by BBWSJP. OP Satker will find out the Arboretum location.

4.2 Provincial government in the middle

Actors that under governor is joint differently. DSDA is allied with BBWSJP-PUPR and Forestry service ally with BP DAS-KLHK. The provincial government is trapped in these two major coalitions. Actors under the provincial government cannot disburse these two strong patrons and making broader watershed management is ineffectively managed

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