Shifting contestation into cooperation: Strategy to incorporate different interest of actors in medicinal plants in Meru Betiri National Park, Indonesia

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ABSTRACT

Meru Betiri National Park (MBNP) is home to a variety of medicinal plants that local communities collect for individual use and sale. In MBNP, a variety of actors are interested in medicinal plants for different reasons. This paper analyzes the interest and influence of ten important actors related to medicinal plant collection and use in MBNP: national park management, the Plantation and Forestry Office of Jember District, farmer groups (juket resi), medicinal plant collectors (pendarung), medicinal plants purchasers (penggupu), small-scale medicinal plant industries of Toga Sumber Waras, Bandarlaut plantation company, a conservation NGO (LSM KAIL), loggers (blandong), and log buyers (borek kayu). To examine and map the position of different interests and influences of actors involved in medicinal plant usage, this paper uses a power grid matrix. The analysis confirms that five of the ten aforementioned actors play a direct role in the medicinal plant policy process, while five actors do not and can be categorized as context setters, subjects, or crowd. This paper ends by recommending a strategy for considering policy options that promote shared interests and minimize anticipated objection from actors concerning the harvest of medicinal plants in MBNP. It concludes that the utilization of medicinal plants in MBNP, together with protection of natural resources, should become an integral part of the park’s conservation strategy.

1. Introduction

The proper conservation of protected areas is essential for biodiversity conservation and for long-term climate change mitigation and adaptation. The effects of human interactions on the “natural component” of national parks are particularly strong at the local level (Carter et al., 2014). Conservation areas in Indonesia are allocated to maintain the protection, preservation, and utilization of natural resources. The human activities permitted in Indonesian conservation areas are thus minimal or completely prohibited. However, many conservation areas, particularly in densely-populated regions, are now under growing pressure from economic-oriented human activities (Herman and Sota, 2014; McCarthy, 2006; Roslinda et al., 2012). Local communities often encroach into conservation areas to obtain forest products for subsistence and income-generating activities (Adetola and Adetoro, 2014). The regulatory regimes focused on ecological preservation often lead to latent conflicts between the management of conservation areas and local communities (Setiawan et al., 2017). These conflicts in Indonesian forests and conservation areas are usually related to issues of tenure and rights to access natural resources (Marwa et al., 2010; Nurrochmat et al., 2012, 2014). Thus, although the most immediate threats to national parks are often local in scale, park management and sustainability is of global concern.

Following Ribot and Peluso (2003), natural resource rights contain de facto and de jure elements, and exclusion can be legal and/or informal (Himberg et al., 2009). According to the Ministry of Forestry (MoFor) Decree 277/1997, the legal rights for Meru Betiri National Park (MBNP) belong to the central government, represented by the national park management (BTN). This decree states that the BTN administers all activities related to the national park. Meru Betiri National Park (MBNP) in East Java, Indonesia, is one of the country’s richest preserves of floral biodiversity. It contains 355 plant species within 92 families (Zohud et al., 2009). Although BTN retains formal control over MBNP, local people have harvested and used natural resources for their livelihoods. Therefore, it is important to incorporate the interests of local communities in the management of MBNP.
resources in this area long before MBNP was formed. This tension between local use and legal exclusion has resulted in conflict between park authorities and local communities (Famuyide et al., 2013).

Medicinal plants are the primary commodities produced from MBNP. Of 355 plant species within the park, 81.7% of them have a known medicinal function (Zuhud et al., 2009). Local people use these plants personally, or sell them for income. However, the price collectors receive for medicinal plants are usually very low (Zuhud et al., 2009).

“Middle men” often control the local market price and information about medicinal plant products, and collectors have little control over what they are paid. Consequently, local people over-harvest medicinal plants, which lead to over-exploitation. Medicinal plants are becoming scarce, and collectors have to travel far from their village when they want to collect medicinal plant materials (Nugroho et al., 2016). The utilization of medicinal plant resources must be addressed to ensure the sustainable management of MBNP.

This research evaluates the interests and influences of different actors involved in the collection of medicinal plants within, and the management of, MBNP. This text proceeds in four subsequent sections. The second section establishes the theoretical background that provides the foundation of enquiry and analysis for this research. Section three addresses the methodology used to identify, stakeholders, analyze data, and support conclusions. Section four presents the results from this study, and section five concludes this text by reiterating the main findings and summarizing a policy recommendation that encourages cooperation and minimizes contestation from actors in and around MBNP.

2. Theoretical background

Forests are multidimensional resources in which many actors are often interested (Krott, 2005; Maryudi, 2016). Different actors may have different, even opposite, interests (Hubo and Krott, 2013; Susanti and Maryudi, 2016), and they may compete for priorities to achieve their respective interests (Schusser et al., 2015, 2016). Reed et al. (2009) suggest that analyses of policy implementation and outcomes should seek to understand the role of involved actors. In policy sciences, an actor is often defined as a social entity, a person, or an organization, that is “able to act on or exert influence on a decision” (Enserink et al., 2010, p. 79).

Lunenberg (2012) defines power as the ability to influence others and the ability to exclude other individuals, people, or groups from realizing their influence or interest (Winkel, 2011; Gaus and Kukathas, 2004). Sources of power include personal as well as organizational power. There are five source of power: legitimate, reward, coercive, expert, and referent power (French and Raven, 1959; Raven, 1992). The two most important factors for discussing power are interest and influence (Reed et al., 2009). Enserink et al. (2010, p. 54) define interests as “the total of values and desires that an actor finds important, regardless of the specific situation.” They include several categories and sub-categories. Within social interests, actors may have interests in social equity and justice; within environmental interests, biodiversity and ecosystem welfare; and within economic interests, growth and competitiveness.

In this paper, referring to Lunenberg (2012), power is an actor’s ability to influence others according to their interest concerning medicinal plants in MBNP. Actors who compete for access to the forest and its resources compete to gain power over natural resources (Ribot and Peluso, 2003), including access to the medicinal plants. Access differs from a strict property rights. It is “a bundle of power” whereas property is defined as “a bundle of rights” (Ribot and Peluso, 2003). Securing rights does not necessarily lead to the ability to benefit from the forests. This paper assumes that actors who harvest medicinal trees as timber, compete with the others who utilize plant materials for medicine, research, or biodiversity preservation purposes.

This paper evaluates different interests in medicinal plants in a multi-actor environment. Assuming that “… no individual single actor will be able to unilaterally impose their desired solution onto the others” (Enserink et al., 2010, p. 79), actors are interdependent and they must cooperate. Thus, knowing who the actors are, and understanding their role in medicinal plant utilization, is important for mapping their interest and influence to define their power. This paper presumes that mapping actors will support information for strengthening the policy process regarding different interests and influences of actors toward medicinal plants. Thus, it is important to analyze the range of actors involved and their networks (Enserink et al., 2010).

To provide a summary illustration of important patterns in the actor environment, “power-interest matrices” have certain advantages over tables (Enserink et al., 2010). Within these matrices, the power and interests of actors classifies different actors, whereas pluses and minuses are used to indicate if an actor supports or opposes the main interests and objectives of a defined problem (Enserink et al., 2010).

3. Methodology

Data collection and field observation were conducted from January to August 2015 in two villages, Andongrejo and Curahnongko, which are adjacent to the national park. These villages were selected purposely, based on the regularity with which their inhabitants collect medicinal plants in MBNP.

The methodology for this research relies most on guidelines for stakeholder analysis using power-interest matrices (Eden and Ackermann, 1998; Bryson, 2004; Reed et al., 2009; Enserink et al., 2010). Since this method of stakeholder analysis focuses on the dimensions of power and interests of actors, actor networks were investigated first, followed by the perceptions of actors. Following Enserink et al. (2010), the procedure for actor analysis proceeds through the following steps: 1) defining a problem as a “departure” of analysis; 2) making an inventory of the actors involved; 3) investigating tasks, authorities, and relations between actors and the current legislation; 4) determining the interests, objectives and problem perceptions of actors; 5) mapping out the position of actors by making inventories of resources and the subjective involvement of actors with the problem; 6) promoting a strategy to incorporate the different interests of actors, which is thought to minimize objection and allow for maximum cooperation among actors.

This paper discusses the presence of different actors that hold conflicting interests, expectations and activities related to medicinal plants in MBNP. Fig. 1 illustrates the analytical framework for evaluating the power of different actors according to their interest and influence in relation to medicinal plants.

The initial step of this study was to investigate the activities within and surrounding MBNP and their (potential) threats to park conservation as the “departure” of analysis. Then, we made an inventory of actors involved in the analysis and investigated their tasks, authorities and relations of actors as well as rules and regulations. Twelve key-informants, representing ten different actors, were purposively selected for in-depth interviews using snowballing. The positions of these key-informants include: the head of Meru Betiri National Park, the section head of medicinal plants/non-timber forest products of the park, the section head of forest planning of the Plantation and Forestry Office of Jember District, the head of the medicinal plants farmer groups (jaket resi), the coordinator of medicinal plant collection (pen-darung), purchasers of medicinal plants (pengepul), the owner of the small-scale medicinal plant industry Toga Sumber Waras, a manager of Bandenalt plantation company (who is also the acting as chairman of a village inside MBNP), the founder and chairman of the non-government organizations (LSM KAIL), the coordinator of logging activities (blan-dong), and log purchasers (borek kayu).

The interviews and observation provided information for understanding actors’ interests, objectives, and perception of problems. These data were structured into overarching problems that medicinal plant
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