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RESEARCH ARTICLE



# Gender power relations in development planning for forest and watershed management in Lampung, Indonesia

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## ABSTRACT

Development planning of forest and watershed management is a critical step for a sustainable natural resource. However, the interests, skills, and participation of women are hardly considered. This research investigates the development of a gender action plan (GAP) in a program called Strengthening Community-Based Forest and Watershed Management (SCBFWM) in upstream Way Besai (Besai River) in West Lampung, Indonesia. Data were collected through interviews, documents, and focus group discussions. We found that there are inconsistencies in government policies regarding commitment to gender. Although West Lampung Regency acknowledged gender equality as a goal, which is shown through its vision, there was barely any mention of it in their local offices' policies, programs, activities, and budget. The gendering of the forest and watershed management has changed in recent years, with women's community-based organizations (CBOs) and the community having acknowledged the importance of women's interests and participation in promoting sustainable forests and watersheds. The gap between ignorance and knowledge within the government, in the context of more knowledgeable and skillful community members, may create tensions between governments, community-based organizations, and community members. This study hopes to strengthen the awareness among government officers in gendering forest and watershed sectors development.

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Development planning; forest and watershed management; gender power relations; gender roles; government policies

## Introduction

Gender and power are inseparable topics when we talk about natural resource management. The reason is that gender is differentiated not only based on experiences of the environment between men and women through materially distinct activities and responsibilities, but also that their interests are gender-differentiated through their distinctive roles, responsibilities, and knowledge (Agarwal, 2015; Elmhirst & Resurreccion, 2008). Natural resources, particularly in development planning, are rarely managed

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explicitly using gender perspectives; yet women have been shown to play a strategic role in water management and environment-based development programs (Andajani-Sutjahjo, Chirawatkul, & Saito, 2015). In forestry and watershed management, gender is contested and negotiated and as such management is affected by gender perspectives in resource use and sharing patterns (Wagle, Pillay, & Wright, 2017). Moreover, policies in forestry and watershed management often ignore women's roles. This article offers insights into the importance of gender-responsive development planning in forest and watershed management; suggesting that different knowledges, experiences, and interests between man and women need to be considered in development planning in forest and watershed management.

Indonesia is among the 10 countries with the biggest forests in the world. Politically, since its independence in 1945, Indonesia has experienced drastic changes in political regime from the unstable politics of post-colonial rule (the era between 1945 and 1966) to an authoritarian regime during the new order era (between 1966 and 1998) and finally to a democratic Reformation era (1999–current period). The shift in the types of regime greatly affected the life of its people, including women and their participation. During the post-colonial unstable period, women were part of the multi-party political system, and enjoyed a relatively free politics, even established a women's party. However, the unstable post-colonial period was described as more focused on political processes than toward economic development.

A gender-biased attitude implies the lack of a gender-sensitive approach in the management of natural resources and assumes that women-focused approaches will not help to improve natural resource management (Buchy & Rai, 2008; Mwangi, Meinzen-Dick, & Yan, 2011). In this context, women tend to be second-class citizens, meaning that they are perceived as being only capable of doing domestic work, not taking public roles (Arsal, 2016). Moreover, gender biases in technology access and dissemination, labor constraints faced by women, and a possible limitation to women's sanctioning authority were the causes of poor performance by 'female-only groups' in forest management as well (Mwangi et al., 2011).

The improvement of forests and watersheds condition is an integral part of ecosystem sustainability. The improvement should contribute toward environmental conservation in surrounding areas of forests and watersheds, but also to better options with regard to community livelihood (Hadush, 2015; Swaminathan & Balan, 2013). The involvement of communities, particularly women, in the forest and watershed management is necessary for two main reasons. First, development must benefit communities and women as part of the community (Leisher et al., 2015). Second, development will be more efficient if public participation incorporated different knowledges, skills, and experiences (Khaleel, Merghani, & Abbas, 2014; Mwakaje, King'ori, Temu, Lokina, & Chalu, 2013; Pokharel, Gyawali, Yadav, & Tiwari, 2011; Sunderland et al., 2014; Wagle et al., 2017). Although women's participation is acknowledged to improve the effectiveness of development programs, gender has not been fully incorporated yet into the planning of development for forest and watershed management. Women have limited access to agricultural inputs and resources yet, at the same time, they carry a double burden between family and agricultural responsibilities (Murray, Gebremedhin, Brychkova, & Spillane, 2016). Moreover, women may not have the same power as men

in decision making on forest management and agricultural practices in general (Agarwal, 2001; Murray et al., 2016; Pandey, Meena, Sharma, & Dwivedi, 2011).

This article aims to analyze how gender power relations work in development planning for forest and watershed management. We mainly explore gender power relations at three levels: macro, meso, and micro. We focus on a community-based forest and watershed management project in Lampung Regency, Indonesia, which aimed to respond to the problem of forest and watershed degradation. Through this project, we explore to what extent gender awareness, sensitivity, and capability influence development planning for forest and watershed resources, especially at the village level in Lampung Regency. The article is organized as follows: First, we sketch the problem of community-based forest and watershed management in Indonesia. Second, we conceptualize the analytical framework. Next, we explain our research field and methods. In the subsequent sections, we present our research findings. Finally, the conclusion reflects on these findings on gender power relations in three forest and watershed management cases in Lampung, Indonesia.

### **Community-based forest and watershed management in Indonesia**

As mentioned before, improvement in the condition of watersheds becomes a vital component on ecosystem sustainability, which derives from the conservation strategies of biodiversity and watershed areas (Twumasi & Merem, 2006). The development of watersheds is crucial for rural development and natural resources in many countries because it contributes to the realization of welfare, empowerment, and conservation (Adhikari, 2001; Kerr, 2007; Suyanto, Khususiyah, & Leimona, 2007). Watershed management is a system with high complexity, but it has many benefits for the environment and community. Watersheds also play a role in the development of culture and civilization (Baguma, Hashim, Aljunid, & Loiskandl, 2013). However, in Indonesia, the growth in population has affected the balance between people and the surrounding river and forest. Java and Sumatra have been most adversely affected by the high density of its population (Banuwa et al., 2012).

The new order regime payed more attention to economic development and applied a uniform top-down approach toward that end. Government sponsored women's groups flourished during this period, but they remained mostly very dependent on government support and lacked initiatives. The Reformation period which started right after the economic crises between 1996 and 1999, took a different approach from previous regimes. The focus on decentralization as the cornerstone of its central-local government relationship put local governments in a much more powerful position; and local initiatives were expected to bring more welfare for the people based on the principle of 'bringing government closer to the people' (Darmastuti, 2014, 2015). However, this new approach has not always been successful since public participation in development, including women's participation, did not easily materialized, including in the forest and watershed sectors.

The project, Strengthening Community-Based Forest and Watershed Management (SCBFWM), aimed to respond to the problems of forest and watershed degradation in Indonesia, such as droughts, floods, landslides, and mudslides. This project was initiated by the Ministry of Forestry of the Republic of Indonesia with the support of the

United Nations Development Programme (UNDP, 2013) and Global Environmental Facility (GEF), and was implemented from 2010 to 2014 (Banuwa et al., 2012). The policy of community-based forest management aims to recover previous forest conditions by involving community participants and all stakeholders. Although this policy benefits the community, it also raises questions regarding the domination of Perhutani<sup>1</sup> as the authorizing agency and the lack of community participation in the planning of forestry resource use (Rosyadi & Sobandi, 2014).

Forest and watershed management as an inseparable part of regional development has to deal with complex problems. First, there is a lack of coordination among authorized actors, and a lack of awareness among community members regarding sustainable forest and watershed resource use. Second, most watersheds cross regional administrative boundaries. This has created serious difficulties, especially for those trying to create synergistic and holistic vertical and horizontal policies and programs among many development actors, from the center down to village levels. Forest and watershed forums have been established by the Indonesian government in several regions in Indonesia to develop awareness and commitment to sustainable forest and watershed management. However, during the new decentralization era, this policy has not fully materialized (Darmastuti, 2013).

The Government of Indonesia (GOI, 2007) has a set of regulations related to the national development planning. Some of those regulations are the law number 25, year 2004 regarding the National development plan system, the Government regulation number 38, year 2007 regarding the allocation of governmental matters between central, provincial, and local Governments, and the Presidential Instruction number 9 (2000) regarding the general guidelines for the implementation of gender mainstreaming. Those policies state that local autonomy and local development planning must be based on the principles of democracy, transparency, participation, equality, and fairness, as well as gender justice. Those principles are basic aspects to guarantee that all human resources and community members share equal rights and responsibilities. The fulfillment of equal rights and the distribution of equal responsibilities ensure the fulfillment of public welfare.

The development of a gender action plan (GAP) in forest and watershed management is a step towards achieving gender equality, as gender disparities have persisted in many countries and regions (Razavi, 2012). The development of GAP in forest and watershed management is therefore not only a technically important document and a project-based activity but it is also assumed to improve gender awareness among forest and watershed development stakeholders.

## **Analytical framework**

Gender inequality and unfairness between women and men relate to women's more limited access to resources of various kinds, including the kinds of education that would enable them to have more voice in public decision-making spaces at various levels. In many regions in Indonesia, families still give less priority to education and literacy for women compared to men. The low level of formal education among women restricts their options to improve livelihoods and participation in public affairs. Therefore, development planning with regards to natural resources management

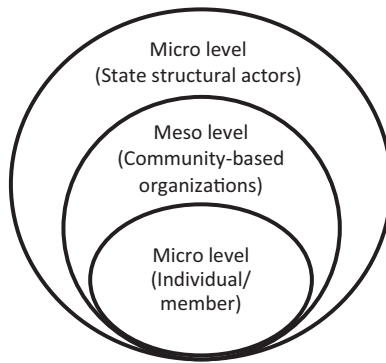
barely incorporates women's interests (FGDs with Women's Empowerment Board in Lampung Province, 2014).

Acknowledging the failure of the Women in Development (WID) approach to bring real gender equality in development, The Government of Indonesia (GOI, 2014) adopted a new approach in Gender and Development. Gender and Development (GAD) refers to an institutional tool to achieve gender equality in many aspects of development (Darmastuti & Ikram, 1997). The WID approach invited more women to participate in development project (e.g., in Indonesia, *via* the Improvement of Women's Status Peningkatan Peran Wanita/P2W) by creating specific activities and projects for women, and increased women's skills in domestic duties. In contrast, GAD was based on the following assumptions: (1) women were not the source of development problems; (2) development should focus on unequal gender relations; (3) development must pinpoint these unequal gender relations, the impact of unfair development and women's inability to fully participate in development; (4) the objective is to create fair and sustainable development; (5) the solution is to empower marginalized women and to change unequal gender relations into more equal ones. In short, the focus of GAD is to fulfill women's needs to become the subject of development (Darmastuti & Ikram, 1997). In the Indonesian context, this shift from a top-down approach, however, has had more impact on academic debates rather than on the practical lives of people, especially women. This article will show in subsequent parts that the term gender itself is not clearly understood by government officers, the most important people responsible for shifting the approach in day-to-day government business.

Meanwhile, the GAP for incorporating women's interests in the planning and management of forests and watersheds has become a critical aspect to realize gender equity in terms of access, participation, control, and benefits from forest and watershed resources (Christie & Giri, 2011; Leisher et al., 2015; Pokharel et al., 2011; Roy, Khan, & Shamma, 2013; Sunderland et al., 2014). Moreover, forests and watersheds are the two most important resources for human livelihoods in many areas (Elmhirst & Darmastuti, 2015).

Here, we adopt a feminist post-structuralist approach (Lubis, 2006) that aims to analyze gender power relations in the development planning of forests and watersheds through the dynamic interactions of three main stakeholders; government institutions, community-based organizations (CBOs) and community members as individuals. Through this approach, we seek to produce a conceptual framework for understanding gender power relations in the interaction between structure (government institutions with their regulations) and actors' (women's CBOs' and individuals') interests and behavior in the development planning of forest and watershed resources. We have been influenced by Theda Skocpol's 'bringing the state back in' (Susser, 1992), identifying interaction between 'structure and agents' (Marsh & Stiker, 1995) in making decisions regarding natural resources to the study of politics (Dasgupta, 2015; Lubell & Fulton, 2007; Singh, 2008; Wagle et al., 2017; Willy & Holm-Müller, 2013).

This approach may not be new in the study of forest and watershed outside Indonesia. However, it is only under Indonesia's democratic regime of the reformation era that power interactions between government institutions and the people become more interesting to study as compared with the top down authoritarian regime of the



**Figure 1.** Three levels of gender power relation. Source: Klaus von Beyme's approach (Caramani, 2014).

previous new order. This approach is relatively new to study forest and watershed development planning in Indonesia.

Using an adaptation of Klaus von Beyme's approach (Caramani, 2014, p. 23), gender power relations will be analyzed within three levels (see Figure 1), namely the macro level (state structural actors), meso level (CBO), and micro level (community members).

Figure 1 shows the three levels: First, the macro level refers to the government of West Lampung Regency. We will analyze whether gender has been considered in the development planning of forest and watershed resources by Regency Offices and officers. Second, in the meso level, we analyze CBOs. We mainly analyze whether woman's CBOs can influence development planning of forest and watershed resources, especially at district level. Third, in the micro or individual level, we analyze individual and community members' responses.

## Research methods

We apply a qualitative research approach in order to examine the gender power relations in the development planning of forest and watershed management in Lampung, Indonesia. The research was conducted in two districts in West Lampung and in the capital city of Lampung province.

The study site was chosen based on some considerations. First, West Lampung Regency in the Lampung province, is a unique area with a well-established social forestry program in which forests exist side by side with other farming practices, especially coffee. This gives more opportunities for the surrounding communities to sustain forests while earning a living from other on-farm and off-farm livelihoods (Elmhirst & Darmastuti, 2015). This is quite different from other forest areas in Indonesia, such as in Kalimantan which is known as Indonesian Borneo and Papua where forests are mostly exploited by large commercial timber industries. Second, since the new order era, the area has been given specific attentions by both national and international agencies, such as the World Agroforestry Centre; as a result, there are well-established CBOs concentrating on the issue of social forestry. Third, power contestation from a gender perspective can be more accurately understood through the interactions of many actors from grassroots individuals up to state actors. It would be more difficult

to study such topic in other forest areas in Indonesia as they usually involve only larger players, especially big timber companies and government agencies and government officials.

In terms of data collection, in-depth interviews with key informants were used to gain a comprehensive view of the actors involved in the process of development planning. We interviewed government officers of West Lampung, extension officers, CBO organizers, and their members, the facilitators of the SCBFWM project, and other relevant community members. The interviews were conducted from March to June 2013. Then, we continued the interviews until the end of July 2015. A total of 33 informants were interviewed, ranging from provincial forestry officers, local government (forestry, planning, and women's affair) officers, SCBFWM provincial project managers and officers, forest affair extension officers, SCBFWM site project coordinators, women's CBO organizers, members of women's CBOs, and members of SCBFWM project field workers.

Second, we analyzed documents related to gender roles in the SCBFWM project. For example, the midterm development plan of the West Lampung Regency, and other public documents from governmental offices, especially the Planning Board, the Office of Family Planning and Women's Empowerment, the Office of Forestry as well as documents from Provincial and Central Offices.

Third, we also conducted Focused Group Discussions (FGDs) at Regency, district, and CBO levels. The FGD in West Lampung Regency was conducted in March 2013, three CBO FGDs were conducted between March and June 2013, and one CBO level FGD was conducted in July 2015.

### **At macro level: lacking human resources and policy inconsistencies**

West Lampung is the only Regency in Lampung (from a total of 15 Regencies and Cities) that includes gender equality as part of its priority (The District Government of West Lampung, 2012). However, we found that this policy has not been fully implemented; gender equality is not always the focus of other related offices on the issue of forest and watershed management, especially the Planning Board, the Office of Family Planning and Women's Empowerment, and the Office of Forestry. Those three offices do not show institutional requirements and support for implementing gender mainstreaming in their respective institution, let alone making gender equality a priority. Those offices do not have institutional regulations or a specific unit responsible for applying gender mainstreaming. None of them have developed specific policies and programs for gendering the development processes related to the forestry and watershed sectors. Moreover, they do not have any target for bringing women's CBOs closer to the development planning process and do not have a standard operational procedure (SOP) for ensuring the incorporation of women's interests in the development planning process.

The word 'empowerment', which is embedded in the name of the Office of Family Planning and Women's Empowerment, was simply translated as providing women with specific programs from the government, i.e., soft skills, small funds for family or economic-group activity, and other relevant trainings (Interview with a woman



informant from the Office of Family Planning and women's empowerment, May 2013). This statement was also repeated by the secretary of the office, who happened to be a man, as did the chairperson of the office. The fact that the office's strategic positions (chairperson and secretary) are men indicated the lack of human resources devoted to gender mainstreaming within the office. Throughout the interviews in this office, the words 'women' and 'social and political empowerment', were missing. This suggests that the government did not see that mainstreaming gender in the development planning process was necessary.

The same situation occurred in the other two offices: The Planning Board and Office of Forestry. The words 'gender' or 'women' were even harder to find, both in documents and interviews. The five missions of the Forestry Office (improvement of forest protection, forest rehabilitation, forest management and usage, integrated planning of the forestry sector, improvement of human resources and management) clearly must be gendered since they all involve partnerships 'with the communities'. None of the documents from the Office of Forestry shows that women were meant to be part of the 'communities'. The interviews in the office suggested the same pattern, with the words 'gender' and 'women' perceived as unfamiliar words. When asked whether there was a specific effort to bring women and gender interests to social forestry policies, programs, and activities, one of the office informants said that,

They (women) do not specifically need to be involved; their husbands can represent their needs and interests. Besides, social forestry involves group activities; it is their choice whether they want to involve women or not. Since farmer groups as the specific targets of social forestry mostly consist of men, we do not see why we have to involve women or as you call it gender interests. I do not know if it is our duty (to involve women and gender interests in our planning). I think gender and women's interests are somewhere else, in the Office of Family Planning and Women's Empowerment, not ours.

Documentation for the development planning process of the Planning Board, the most important institution in local development planning, reflects similar views to those of the other two institutions. The words gender and women's interests were not mentioned as necessary in the process of development planning; gendering development planning was not seen as necessary. However, when confronted with the principle that 'when you do not involve women in the development planning process then you will not get their interests, their needs in your plans, which will mean that you do not benefit them', the informant from the Planning Board (a man) said,

We think you are right. So, we need to develop a standard operational procedure of the development planning process from the village level to the regency level, which ensures women's participation in it. I think it is a good idea and we could do that.

The informant also said,

We know your point concerning the need to involve women in development. We, in this office, noticed that giving a little capital to women's groups often gives more benefit than giving it to farmer groups. Most of the women's groups have a good management, are trustworthy, and their businesses grow quite well. Close to this Capital of West Lampung, we see some women's groups that produce instant coffee and other small businesses prosper.

The quick and positive response from the officer of the Planning Board shows that he is more responsive toward the need of gendering development planning than the Office of Women's Empowerment. None of the three resources from the Office of Women's Empowerment indicated an awareness of what 'empowerment' means, other than providing women with practical life skills and skills for domestic duties. It is, therefore, not surprising that the documents from the Office of Family Planning and Women's Empowerment were often mentioning the word 'women' but remained silent on the word 'empowerment'.

The post-structuralists believe that structure is not an institution which has written regulations and policies, but that regulations, policies, and programs are the product of interactions (Marsh & Stiker, 1995, p. 189–206). Structure (government institutions in this regards) interacts with agents (officers of the institutions). When the human beings (resource persons as development agents) lack gender awareness, then the structure (government institutions) will create the same lack of awareness. Although West Lampung Regency puts gender equality as part of its formal vision, women's empowerment and gender equality are still missing from the agents' awareness and other development planning documents; the lack of human resource awareness produces inconsistent policies.

### **At meso level: more power and interests of the women's CBOs**

In contrast with the macro level, we found that in the upstream of Way Besai watershed, women's CBOs showed better knowledge and skills related to management of forests and watersheds as well as management of their CBOs. As stated by the chairperson of Kelompok Wanita Tani (KWT, Women Farmers Group) Melati (and affirmed by other members of her CBOs),

This social forestry gives us more chance to learn about technical things regarding forests, such as planting and cultivation techniques, soil and land conservation, weeding techniques and more. It also gives us an opportunity to establish a strong women farmers group. We have developed our cooperatives in which we run a small supermarket, process and produce our instant coffee; farming ginger and processing it into herbal medicine products. We started our cooperatives years ago with only 19 members, but now it has increased up to 60 members, and more people want to join. Now, we can pay our members who produce instant coffee as well as our cooperatives management team with quite decent salaries. This coming *Idul Fitri* (Islamic festivity), we will distribute quite large amounts of food (frying oil, sugar, syrup, margarine, eggs, powder and more) for our members. Indeed, this women's group is our way of improving our livelihoods.

Moreover, the self-empowerment of women's CBOs was gained through diversification of economic activities which do not only depend on forest resources, but also and mostly on other activities, such as running a cooperative that sells groceries and products for daily needs, producing instant coffee, making brown palm sugar, producing bottled honey, and farming ginger to produce herbal medicine. The strength of the women's CBO was not an instant result, however, as it has developed over 20 years, during which membership grew from 19 to 60 members. The rigor of the CBO through their cooperative was apparent while conducting this study. During the

interviews in the CBO office, located beside the CBO cooperative, many members came and went shopping in their grocery store, others were busy drying coffee beans, others helped clients grind coffee using a grinding machine owned by the cooperative, some other members were busy packing brown palm sugar, and others did administrative activities.

Apart from this success, the same resource person stated that women's groups still need to advance to accomplish further targets, and one of the targets is influencing the development planning process at a higher level. As stated by the chairperson of KWT Melati below,

Personally, I want to be involved in the development planning process at a higher level, such as at the district level and if it is possible at the regency level. I know, there are many opportunities for us to access, such as programs and funds from many offices. Here in the village, we have to wait for somebody to come. We can no longer rely on such generousities since they will disappear someday. At this critical moment, we still need empowerment, and we are not ready yet to be left by Mr. Z (Regional Facilitator of the SCBFWM Project).

However, such a success story and the powerful position were not uniformly acknowledged by another women's CBO. The chairperson of KWT Sindang Pagar said that:

We just started our women farmers group program. If KWT (*Kelompok Wanita Tani/* Women Farmers Group) Melati succeeded because they started their activities much earlier than we did, we do want to learn from them. We do not know whether we will be as successful as they have been. Maybe time will be a problem for us because as far as we know, this project (SCBFWM) which provides the women's groups with training, small funds, and technical guidance] will not last forever, so we have to race against time. We want to take more roles in influencing policies and management of forests and watersheds, but we still suffer from so much backwardness.

Her anxiety was caused by her view that the CBO (KWT Sindang Pagar) was not as 'strong' as KWT Melati yet. This was related to the fact that KWT Sindang Pagar, which was established in 2011, has never received any funds from the government or other institutions. They also have little experience in managing a CBO or in conducting group activities in social forestry and have limited skills in communicating their interests to other institutions as well as in accessing funds from funding agencies. A similar situation was also mentioned by another women's group from Mekarjaya (another district) which started its activities at around the same time as the Sindang Pagar women's group. Although all the women's groups are encouraged to organize more activities and play greater roles in development, their capacity and power in facing other institutions in the development planning and management of forests and watersheds were uneven.

Other than the fact that the two women's CBOs (Melati and Sindang Pagar) operated during a different period, the two informants told contrasting stories of previous encounters with funding and empowerment agencies. KWT Melati, which started its operation in the mid-1990s, has been supported by many previous agencies before the last SCBFWM. The most important ones were Watala (Mahasiswa Pecinta Alam or Nature Lovers Students) and ICRAF (World Agroforestry Center) Sumberjaya Office. Early on, some programs had been supported with grants, such as a revolving fund,

training related to economic activities, training for group management and more. However, KWT Sindang Pagar does not have this kind of support. The 'powerlessness' of KWT Sindang Pagar compared to KWT Melati came from the absence of previous experience with funding agencies.

During FGDs, we found some interesting findings. Other than KWT Melati, most of the women's CBOs do not yet have good institutional capacity to perform their roles in development planning and the management of forest and watershed resources. Most of the CBOs acknowledged that they still need continuous capacity building for some important roles, such as stronger roles in the physical aspect of forest and watershed management, in the development of group planning and group management, in the capability to access resources from other institutions, in facing challenges and changes, in advocating for the group's interests, and in sustainably improving group performance. The shortfalls show that most of these women's groups suffer from what Rai (2002) called a lack of political space in which to organize their varied interests.

Another critical aspect that needs to be emphasized is the strength of KWT Melati, which was not without problems. The strength came from the chairperson of the group who has been dedicating her time continuously to establish, develop and manage the women farmers' group from the mid-1990s until now. As she said,

I have been saying over and over that I want to resign and give the post of chairperson to another woman, the younger generation which may have more knowledge and energy to further advance our women's group. However, so far, nobody wants to replace me. It should not be like this; it will not be suitable for the group to depend on me continuously. I am concerned about this.

This problem was also mentioned by one extension officer from the Office of Agriculture. In an informal dialog at the regency level, the officer said that KWT Melati has been very dependent on the chairperson, and he was also concerned about the situation. In his opinion, the situation was not good for the future of the women's group.

In short, at the meso level, the women's group, i.e., KWT, which has more experience in capacity building and empowerment, tends to have more bargaining power with governmental institutions (represented by officers of the West Lampung Regency Government) and other farmers groups (with its membership dominated by men). Other groups that have been more recently established show less bargaining power, but also acknowledged a gender power dynamic within the group. However, to be able to get stronger and more gender-responsive power, they expressed the same need for continuous empowerment from supporting agencies.

### **At micro (individual) level: more awareness, skills, and interests**

To figure out how women as individuals perceive their power related to that of state and groups related to forest and watershed development planning and management and what their power means to gender power relationships among those players, we conducted individual interviews. Further analysis was directed to find out more at three specific levels. First, we looked at women's gender power at the domestic level.

This further divided into three aspects: (1) whether women's control on technical aspects of forest and watershed management encouraged them to influence development planning at village level; (2) whether women's control on children-related knowledge and skills regarding forest and watershed management ensured the sustainable forest and watershed planning and management; and (3) whether women's relation to their husbands allowed them to be independent subjects in development planning and management of forests and watersheds. Second, we examined women's gender power at the community level based on their aspirations and participation in development planning, especially at the village level. Third, we looked at whether women may have more power to influence planning at district and regency level.

To answer the question of whether women have control over technical aspects regarding forest and watershed management that give them more power to influence decision making at village level, one of the members of KWT stated as follows,

Now I know how many coffee trees must be planted in acreage to comply with the regulations regarding social forestry. We must plant 500 trees in a hectare, and only by abiding by the regulation will we be given a longer-term social forestry license, which lasts for 25 years. I know the proper technique of planting trees. We also need to ensure that nobody cuts the trees, so everybody is policing the forest without being paid. We also must conduct proper tillage to prevent mudslides, and I know this as well. I also know the technique of weeding, fertilizing trees. It is crucial for me since sometimes I must do it to help my own family or for our "revolving human resource cooperatives" in our women farmers group.<sup>2</sup> I always think that our men counterparts are now more respectful towards us since we are more knowledgeable and skillful than before. I am more confident not only when talking with my husband, but also with village leaders when we advance our women farmer group's interests.

Other informants informed us that by having the skills to process non-timber forest products, such as producing bottled honey, banana chips, bamboo handicrafts, they were not only able to raise money but gained respect from their husbands and this gave them confidence to communicate with village dignitaries (interview with two members of KWT). They went further saying that village leaders respect them more since they have more productive activities based on their knowledge and skills compared to the past when women in their village only had limited productive activities in public.

These statements reveal that individual knowledge and skills encourage a woman to participate more, not only at the household level, but also at the village level. This also implies that husbands and village leaders are more respectful toward independent women's groups and individuals who can advance their interests based on knowledge and skills. Today power is dynamic and works reciprocally, which is entirely different from the new order era when State power (here represented by Village leaders and village officers) always dominated over individuals, especially women. Planning for forest and watershed management has become a power contestation among many players, individuals, CBOs, and state officials. This situation implies that actors at the local level play essential roles in political democratization during this reform era in Indonesia (Zuhro, 2009).

This important finding must be understood more carefully. Women activists play more roles in planning and management of forests and watersheds at both domestic

and village levels. However, other women did not have the same access and did not participate in decision making at the village, district or regency levels. FGDs at village level revealed that for most women, time constraint due to women's multiple roles limited their ability to gain access and to participate more, especially when they needed to travel to distant district capitals and leave their children at home.

However, traveling to district capitals sometimes was seen as an exciting break from daily routine, other than getting more access to relevant information and decision making. A woman said that as long as she does not need to travel frequently, she would be pleased to participate in district CBO meetings since she can have a break from her daily routine and be more participative in public and state activities.

We have seen that power relations at the regency level were very similar to that of village and district levels. Only the most active women were able to make the trips and participate at higher levels. Key reasons include the importance of being able to participate and share their interests at higher levels of power; the need for more time and financial availability, the required knowledge and skills for advancing interests, and high self-confidence. However, the chairperson of KWT Melati has those abilities, as she suggested,

I have traveled a lot, attended many meetings at Regency, provincial, and under SCBFWM sponsorship, at the national level. Now I am in the process of looking for a partnership with a herbal company in Central Lampung (different regency) since our women's farmer group is starting ginger farming and we will produce herbal medicine from ginger. We need the technical know-how regarding herbal medicine, packing techniques and so on. The boss of the company has agreed to work together and help us, maybe to enlarge the business.

An active individual with a precise determination can improve the status of women at many levels and ensure the existence of the women's group since the group strongly depends on a specific patron (Khan, 2001). As we have seen in the KWT Melati case, women's participation is not only crucial for their physical participation but also for power-sharing in decision-making (Chhetri, 2001). Planning decisions about forest and watershed management are, indeed, a gender power contestation that is dynamic.

## Conclusion

Development planning of forest and watershed management is a critical step for a sustainable natural resource. However, during implementation, policymakers do not always consider the interests, skills, and participation of women. This study found inconsistencies in government policies regarding gender in the West Lampung Regency. In the Office of Family Planning and Women's Empowerment, the Planning Board, and the Office of Forestry, the acknowledgment of gender equality is part of the broader vision. However, their officials do not have any specific policies to make it a reality. The absence of specific government policies for incorporating gender perspectives in forest and watershed management has created dissatisfaction among women's civil society organizations. The gendering of the forest and watershed management as well as the introduction of social forestry programs in the last couple of

years has changed the picture with more and more women's civil society organizations as well as male and female community members acknowledging the importance of women's interests and participation for sustainable forest and watershed management through a more aware society, stronger civil society organizations, and more knowledgeable and skillful community members. Women appreciate the recognition of their skills and, therefore, they would be able to contribute more to economic improvements if they were given opportunities such as training (Johnson et al., 2015). However, the gap between an 'uninformed government' and a more aware, more knowledgeable one, as well as more skillful community members may create tensions between governments and CBOs as well as community members. Finally, we hope that this study will contribute to raising the awareness of government officers in gendering forest and watershed sectors development.

In terms of implications for other studies on gender power relations in forest and watershed development planning, the argument presented here is assumed to be unique for the study site since different forest areas in Indonesia have different stakeholders, including women and women's organizations, and differences in structural organizations, both among government agencies and private big timber businesses. However, this research shows some similarities with a previous study which concluded that, in the reformation era, government agencies in cocoa sustainability sector have also been outdated in term of sustainable agriculture knowledge by private sectors and people's aspirations (Wijaya, Glasbergen, Leroy, & Darmastuti, 2018). As such, government agencies are less aware compared to both its people and the private sector regarding what they must do in development planning.

## Notes

1. Perhutani is a public company that engages in the protection and management of forest in Indonesia. Perhutani's interest is to ensure that the activities within the forest are managed by the village forest community in accordance with the principles of protected forest management. The village forest community is a group of people who has the right to manage the area surrounding the forest or within the forest. This community can plant coffee, rubber or other plants and they will share the profit with Perhutani (for more information see Wijaya, Glasbergen, & Mawardi, 2017, p. 702).
2. Revolving human resource cooperative is a cooperative in which women members will work in each member's farm field without being paid. They simply count the hours of work, and they must reciprocate with the same number of hours of work on other members' fields. At the end of the season, they will count the difference and pay the extra hours with money, usually during harvest season.

## Disclosure statement

No potential conflict of interest was reported by the authors.

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## References

- Adhikari, J. R. (2001). Community-based natural resource management in Nepal concerning community forestry: A gender perspective. *A Journal of the Environment*, 6, 9–22. Retrieved from <https://pdfs.semanticscholar.org/513f/f4818440596e3cf496eb5d2ec184ccd89a21.pdf>
- Agarwal, B. (2001). Participatory exclusions, community forestry, and gender: An analysis for South Asia and a conceptual framework. *World Development*, 29, 1623–1648. doi:10.1016/S0305-750X(01)00066-3
- Agarwal, B. (2015). The power of numbers in gender dynamics: Illustrations from community forestry groups. *The Journal of Peasant Studies*, 42, 1–20. doi:10.1080/03066150.2014.936007
- Andajani-Sutjahjo, S., Chirawatkul, S., & Saito, E. (2015). Gender and water in Northeast Thailand: Inequalities and women's realities. *Journal of International Women's Studies*, 16, 200–212. Retrieved from <https://vc.bridgew.edu/jiws/vol16/iss2/13/>
- Arsal, T. (2016). The involvement of women in the production of Emping Melinjo (Melinjo chips) to improve the economy of rural farmer household. *Komunitas: International Journal of Indonesian Society and Culture*, 7, 243–250. doi:10.15294/komunitas.v7i2.4720
- Baguma, D., Hashim, J. H., Aljunid, S. M., & Loiskandl, W. (2013). Safe-water shortages, gender perspectives, and related challenges in developing countries: The case of Uganda. *The Science of the Total Environment*, 44, 96–102. doi:10.1016/j.scitotenv.2012.10.004
- Banuwa, I. S., Setiawan, A., Wulandari, C., Yuwono, S. B., Abidin, Z., Budiono, P., Istanto, K., & Affandi, I. (2012). *The community-based of forest and watershed management: Lesson learned from Way Besai Lampung. Organized by the office of watershed management of Way Seputih-Way Sekampung, Bandar Lampung*. Lampung: Aura Publishing. Retrieved from [https://www.academia.edu/11669927/Pengelolaan\\_Hutan\\_dan\\_Daerah\\_Aliran\\_Sungai\\_Berbasis\\_Masyarakat\\_Pembelajaran\\_dari\\_Way\\_Besai](https://www.academia.edu/11669927/Pengelolaan_Hutan_dan_Daerah_Aliran_Sungai_Berbasis_Masyarakat_Pembelajaran_dari_Way_Besai)
- Buchy, M., & Rai, B. (2008). Do women-only approaches to natural resource management help women? The case of community forestry in Nepal. In B. P. Resurreccion & R. Elmhirst (Eds.), *Gender and natural resource management: Livelihoods, mobility and interventions* (pp. 127–147). Abingdon: Taylor & Francis Group.
- Caramani, D. (2014). *Introduction to comparative politics*. Oxford: Oxford University Press.



- Chhetri, G. (2001). A social and cultural perspectives of women and community forestry in Nepal. *Contribution to Nepalese Studies*, 28, 53–72. Retrieved from <https://www.questia.com/library/journal/1G1-87457348/a-social-and-cultural-perspective-of-women-and-community>
- Christie, M. E., & Giri, K. (2011). Challenges and experiences of women in the forestry sector in Nepal. *International Journal of Sociology and Anthropology*, 3, 139. Retrieved from <https://vtechworks.lib.vt.edu/bitstream/handle/10919/82518/ChristieWomeninForestry2011.pdf?sequence=1&isAllowed=y>
- Darmastuti, A. (2013). Technical report on gender action plan for strengthening community-based forest and watershed management in Lampung, Indonesia. Indonesia: The University of Lampung.
- Darmastuti, A. (2015). Arah politik pemerintahan UU No. 23/2014. *Arianto, B. desentralisasi atau resentralisasi*. Yogyakarta, Indonesia: CV Bulaksumur Empat.
- Darmastuti, A. (2014). Local autonomy and inter-sector performance based governance in Lampung province, Indonesia. *Journal of Government and Politics*, 5(2), 169–175. doi:10.18196/jgp.2014.0016.
- Darmastuti, A., & Ikram. (1997). *Konsep dan Implikasi Gender*. Lampung, Indonesia: Seri Monografi Lembaga Penelitian Universitas Lampung.
- Dasgupta, P. (2015). Critical challenges: Rebuilding community through the social capital in watershed management. *Journal of Research in Humanities and Social Science*, 3, 09–15. Retrieved from <http://www.questjournals.org/jrhss/papers/vol3-issue5/B350915.pdf>
- Elmhirst, R., & Darmastuti, A. (2015). Material feminism, and multi-local political ecologies: Rethinking gender and nature in Lampung, Indonesia. In R. Lund, P. Doneys, & B. P. Resurreccion (Eds.), *Gendered entanglements: Re-visiting gender in rapidly changing Asia* (pp. 177–206). Copenhagen, Denmark: NIAS Press.
- Elmhirst, R., & Resurreccion, B. P. (2008). Gender, environment and natural resource management: New dimensions, new debates. In B.P. Resurreccion & R. Elmhirst (Eds.), *Gender and natural resource management: Livelihoods, mobility and interventions* (pp. 3–22). Abingdon: Taylor & Francis Group.
- Hadush, M. (2015). The role of community-based watershed management for climate change adaptation in Adwa, central Tigray zone. *International Journal of Weather, Climate Change and Conservation Research*, 1, 11–35. Retrieved from <http://www.eajournals.org/wp-content/uploads/The-role-of-Community-based-watershed-management-for-Climate-Change-Adaptation-in-Adwa-central-Tigray-Zone.pdf>
- Johnson, N., Njuki, J., Waithanji, E., Nhambeto, M., Rogers, M., & Kruger, E. H. (2015). The gendered impacts of agricultural asset transfer projects: Lessons from the Manica smallholder dairy development program. *Gender, Technology, and Development*, 19, 145–180. doi: 10.1177/0971852415578041.
- Kerr, J. (2007). Watershed management: Lessons from common property theory. *International Journal of the Commons*, 1, 89–110. doi:10.18352/ijc.8
- Khaleel, M. S., Merghani, E. A., & Abbas, S. E. (2014). Contribution of the women's forestry project to rural development in Shendi area (Sudan). *IOSR Journal of Humanities and Social Science*, 19, 91–98. doi:10.9790/0837-19259198
- Khan, N. A. (2001). *Social forestry versus social reality: Patronage and community-based forestry in Bangladesh*. Gatekeeper series no. 99. London: International Institute for Environment and Development (IIED).
- Leisher, C., Temsah, G., Booker, F., Day, M., Agarwal, B., Matthews, E., ... Wilkie, D. (2015). Does the gender composition of forest and fishery management groups affect resource governance and conservation outcomes: A systematic map protocol. *Environmental Evidence*, 4, 1–7. doi: 10.1186/s13750-016-0057-8
- Lubell, M., & Fulton, A. (2007). Local policy networks and agricultural watershed management. *Journal of Public Administration Research and Theory*, 4, 1–24. doi:10.1093/jopart/mum031
- Lubis, A. Y. (2006). *Dekonstruksi epistemologi modern, dari postmodernism, teori kritis, postcolonialism hingga cultural studies*. Jakarta, Indonesia: Pustaka Indonesia Satu.

- Marsh, D., & Stiker, G. (1995). *Theory and methods in political science*. New York, NY: ST. Martin Press, INC.
- Murray, U., Gebremedhin, Z., Brychkova, G., & Spillane, C. (2016). Smallholder farmers and climate smart agriculture: Technology and labor-productivity constraints amongst women smallholders in Malawi. *Gender, Technology, and Development*, 20, 117–148. doi:10.1177/0971852416640639
- Mwakaje, A. G., King'ori, J., Temu, S., Lokina, R., & Chalu, H. (2013). The impact of reducing emissions from deforestation and degradation (REDD) on forest-dependent livelihoods by gender in Tanzania and the role of the institutional framework for equitable benefits. *International Journal of Biodiversity and Conservation*, 5, 165–175. doi:10.5897/IJBC12.107
- Mwangi, E., Meinzen-Dick, R., & Yan, S. (2011). Gender and sustainable forest management in East Africa and Latin America. *Ecology and Society*, 16, 17. Retrieved from <http://www.ecologyandsociety.org/vol16/iss1/art17/>
- Pandey, S., Meena, B. S., Sharma, P., & Dwivedi, R. N. (2011). Gender involvement in the decision making of on-farm and off-farm activities. *Journal of Community Mobilization and Sustainable Development*, 6, 42–45. Retrieved from [https://www.researchgate.net/profile/Lakhwinder\\_Kaur10/publication/326146235\\_Mobilization\\_Journal\\_Vol\\_132\\_May-August\\_2018\\_book/links/5b3b11174585150d23f1ebb1/Mobilization-Journal-Vol-132-May-August-2018-book.pdf?origin=publication\\_detail](https://www.researchgate.net/profile/Lakhwinder_Kaur10/publication/326146235_Mobilization_Journal_Vol_132_May-August_2018_book/links/5b3b11174585150d23f1ebb1/Mobilization-Journal-Vol-132-May-August-2018-book.pdf?origin=publication_detail)
- Pokharel, R. K., Gyawali, A. R., Yadav, R. L., & Tiwari, K. R. (2011). Increasing women access to financial resources through micro-credit of Nepal's community forestry. *International Journal of Social Forestry*, 4, 1–16. Retrieved from [http://ijsf.org/dat/art/vol04/ijsf\\_vol4\\_no1\\_01\\_pokharel\\_woman\\_access\\_nepal.pdf](http://ijsf.org/dat/art/vol04/ijsf_vol4_no1_01_pokharel_woman_access_nepal.pdf)
- Presidential Instruction number 9 year 2000. *General Guidelines for the Implementation of Gender Mainstreaming Policies* [Pengaruhutamakan Gender dalam Pembangunan Nasional]. The Government of Indonesia. Retrieved from <https://www.kemenkeu.go.id/sites/default/files/inpres-no-9-tahun-2000-tentang-pug.pdf>
- Rai, S. M. (2002). *Gender and the political economy of development, from nationalism to globalization*. Cambridge: Polity Press.
- Razavi, S. (2012). World development report 2012: Gender equality and development—A commentary. *Development and Change*, 43, 423–437. doi:10.1111/j.1467-7660.2012.01743.x
- Rosyadi, S., & Sobandi, K. (2014). Power relation between perhutani and community in managing forest resources in banyumas: Business versus community empowerment. *Komunitas: An International Journal of Indonesian Society and Culture*, 6, 47. doi:10.15294/komunitas.v6i1.2939
- Roy, S., Khan, S. H., & Shamma, W. T. (2013). Exploring perceptions of Mangrove forest “Sundarbans” goers' women about environmental security. *The Macrotheme Review*, 2, 216–232. Retrieved from [http://macrotheme.com/yahoo\\_site\\_admin/assets/docs/RoyMR21f.34140724.pdf](http://macrotheme.com/yahoo_site_admin/assets/docs/RoyMR21f.34140724.pdf)
- Singh, N. (2008). Equitable gender participation in local water governance: An insight into institutional paradoxes. *Water Resources Management*, 22, 925–942. doi:10.1007/s11269-007-9202-z
- Sunderland, T., Achdiawan, R., Angelsen, A., Babigumira, R., Ickowitz, A., Paumgarten, F., ... Shively, G. (2014). Challenging perceptions about men, women, and forest product use: A global comparative study. *World Development*, 64, S56–S66. doi:10.1016/j.worlddev.2014.03.003
- Susser, B. (1992). *Approaches to the study of politics*. New York, NY: Macmillan Publishing Company.
- Suyanto, S., Khususiyah, N., & Leimona, B. (2007). Poverty and environmental services: Case study in Way Besai Watershed, Lampung Province, Indonesia. *Ecology and Society*, 12, 13. Retrieved from <https://www.ecologyandsociety.org/vol12/iss2/art13/ES-2007-2070.pdf>
- Swaminathan, B., & Balan, K. C. S. (2013). Dryland management in India: Backdrop, focus and the future. *American International Journal of Research in Formal, Applied & Natural Sciences*, 4, 58–63. Retrieved from <http://iasir.net/AIJRFANSpapers/AIJRFANS13-339.pdf>
- The Government of Indonesia. (2007). *Government regulation number 38 the year 2007 regarding distribution of authorities among central, provincial, and local governments*. Indonesia: The Government of Indonesia.

- The Government of Indonesia. (2014). *Law number 25 the year 2004 regarding National development plan system*. Indonesia: The Government of Indonesia.
- Twumasi, Y. A., & Merem, E. C. (2006, May 1–5). *Management of watersheds with remote sensing and GIS: A case study of river Niger Delta region in Nigeria*. ASPRS 2006 Annual Conference Reno, ASPRS, Las Vegas, NV.
- United Nations Development Programme. (2013). *Technical report: Gender action plan on strengthening community based forest and watershed management*. Indonesia: Ministry of Forestry of the Republic of Indonesia, UNDP, and GEF.
- Wagle, R., Pillay, S., & Wright, W. (2017). Examining Nepalese forestry governance from gender perspectives. *International Journal of Public Administration*, 40, 2015–2225. doi:[10.1080/01900692.2015.1091015](https://doi.org/10.1080/01900692.2015.1091015)
- The District Government of West Lampung. (2012). *West Lampung Mid-Term Development Plan 2012-2017*. Indonesia: The District Government of West Lampung.
- Wijaya, A., Glasbergen, P., Leroy, P., & Darmastuti, A. (2018). Governance challenges of cocoa partnership projects in Indonesia: Seeking synergy in multi-stakeholder arrangements for sustainable agriculture. *Environment, Development and Sustainability*, 20, 129–153. doi:[10.1007/s10668-016-9874-8](https://doi.org/10.1007/s10668-016-9874-8)
- Wijaya, A., Glasbergen, P., & Mawardi, S. (2017). The mediated partnership model for sustainable coffee production: Experiences from Indonesia. *International Food and Agribusiness Management Review (IFAMR)*, 20, 689–708. doi:[10.22434/IFAMR2017.0021](https://doi.org/10.22434/IFAMR2017.0021)
- Willy, D. K., & Holm-Müller, K. (2013). Social influence and collective action effects on farm level soil conservation effort in rural Kenya. *Ecological Economics*, 90, 94–103. doi:[10.1016/j.ecolecon.2013.03.008](https://doi.org/10.1016/j.ecolecon.2013.03.008)
- Zuhro, R. S. (2009). *Peran aktor dalam demokratisasi*. Yogyakarta, Indonesia: Ombak.