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# How can we mitigate power imbalances in collaborative environmental governance? Examining the role of the village facilitation team approach observed in West Kalimantan, Indonesia

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**Abstract:** Researchers have focused on collaborative governance as an effective measure to realise sustainable natural resource management through the participation of various stakeholders. However, the literature has indicated that issues such as power imbalances tend to undermine the effectiveness of collaborative governance. Powerful actors represented by the government tend to control collaborative processes and produce benefits for dominant groups, while less empowered local communities are often deprived of opportunities for livelihood improvement. Although numerous researchers have analysed the key factors that influence the processes and outcomes of collaborative governance, few have identified a concrete measure to reduce the risk of failure, particularly when managing power imbalances in developing countries. This study explored a methodology to address the power imbalances in collaborative governance based on a case study of a participatory peatland fire prevention project implemented in West Kalimantan Province, Indonesia. Semi-structured interviews and questionnaire surveys conducted with project participants suggested that measures such as establishing a joint team of government officers and villagers, providing a common facilitation training programme, training villagers as facilitators, promoting equal knowledge sharing, and allowing villagers to make their own decisions mitigated the power imbalances between the two groups.

**Keywords:** collaborative governance; power; facilitation; peatland fire; West Kalimantan; Indonesia

## 1. Introduction

Collaborative governance (CG) is defined as 'a governing arrangement where one or more public agencies directly engage non-state stakeholders in a collective decision-making process that is formal, consensus-oriented, and deliberative and that aims to make or implement public policy or manage public programs or assets' [1]. CG has the potential to enhance the quality of decisions on natural resources or environmental management using comprehensive information [2–4]. It incorporates a wide variety of knowledge and experience from different stakeholders, which produces innovative ideas [5] and workable solutions [6]. CG is expected to be responsive to rapid changes at local levels, making it easier to govern diverse and dynamic socioecological systems [7]. It is also effective in resolving conflicts among stakeholders with competing values and interests because it attempts to incorporate the opinions of all parties by reducing the risk of opposition [8]. Further, CG promotes mutual understanding and generates trust and social capital, which help mitigate future conflicts [9]. Even foreign, domestic, and local 'outsiders' can be involved effectively in the activities of CG, and such involvement and activities are expected to provide a breakthrough in solving the issues in natural resource management [10].

However, CG has its limitations, including fundamental differences in values and ideologies, power imbalances among stakeholders, imbalances in negotiation skills, and lack of trust [9]. In reality, it is often difficult to manage discussions in an equal and transparent manner with stakeholders with differing opinions and interests [11]. This tendency is frequently observed in natural resource management, since it requires input from multiple groups with competing values and interests [12,13]. Horizontal and vertical collaboration is difficult [14], and creating effective partnerships among policy makers and citizens for societal transformations remains a challenge [15]. Therefore, further research on learning-based, flexible collaborative platforms are necessary [16].

In particular, power imbalances have been discussed as one of the major obstacles to achieving sustainable natural resource management through CG. While 'power' is defined as 'the capacity of an actor to make another do something or impose his/her own will on others' [17], it also plays a positive role in realising rights or promoting synergy through partnerships [18]. Power imbalances often serve as barriers to promoting meaningful stakeholder engagement [4], by restricting the collaborative agenda [19]. Powerful actors, such as governments, often continue to control collaborative processes [20], resulting in benefits for dominant groups [21,22], which may hinder social capital development in powerless communities [23]. Elites, including government officers, tend to prevent transferring authority to local communities, which lowers the latter's empowerment [24,25]. Powerful communities at national levels tend to hamper multi-level collaboration with sub-national levels [26]. Even if consensus is reached by involving less powerful or marginalised actors in decision-making processes, equitable outcomes are rarely produced because of existing power structures [27]. Power imbalances could exclude the less powerful actors from decision-making processes, which may lead to a failure to reflect their interests and needs [21,28,29]. Power asymmetries undermine the effectiveness of synergy, trust, creativity [30], and the implementation of socially and environmentally desirable policies [19].

These issues are particularly prominent in Indonesia, where local communities have fewer opportunities to present their opinions. In general, government officers and private companies tend to have stronger influences on deciding forest management [31]. Owing to the lack of understanding among policymakers about the importance of involving communities, local communities in Indonesia remain far from being empowered despite the implementation of decentralised forest management policies for decades [32]. Indeed, Indonesian government authorities often ignore local communities' needs [33]. The disdain for traditional ecological knowledge is one of the major issues that hamper participatory forest management in Indonesia [34]. The benefits gained by local actors through collaborative forest management remain suboptimal because of elite capture and poor local governance in countries such as Indonesia [35]. Thus, to achieve sustainable, community-based natural resource management, particularly in countries like Indonesia, it is essential to identify concrete measures to mitigate power inequalities.

Local people can play a critical role in natural resource management through daily management practices and by using local, indigenous, or traditional knowledge [36]. Local knowledge obtained through a community's long experience in a particular place can complement, correct, or provide alternative perspectives to the scientific or professional knowledge of policymakers [37]. CG involving local stakeholders is expected to be an effective measure to reinforce the capacity of local governments. If local government officers and local people can effectively collaborate on natural resource management, the latter can complement the former by serving as practitioners who adopt measures to manage resources sustainably [38]. Thus, devolution of power to the local people is key to the success of sustainable natural resource management [24].

Although numerous studies have analysed the processes and factors that promote or hinder CG, few researchers have identified a concrete measure to realise successful CG, especially for addressing power imbalances. In particular, ensuring effective collaboration in the context of inequitable power relations remains a difficult problem to solve [27]; these issues remain poorly understood in the literature [28]. Cullen et al. [11] presented a

two-tier collaborative forest management planning methodology that enables all stakeholders, including powerless indigenous peoples, to reach consensus. Reed and Abernethy [39] stressed the importance of skilled facilitators to ensure successful knowledge production by involving diverse parties. Sherriff et al. [40] stated that empowerment of powerless communities is one of the success factors for power sharing. Partidario and Sheate [41] highlighted that knowledge sharing and shared decision-making processes may create opportunities for power sharing in impact assessment. Levesque et al. [42] suggested that institutional arrangements, such as valuing good ideas from anyone during decision making, would contribute to the equalisation of power. However, these studies were mostly based on case studies conducted in industrialised countries with better governance; few examples can be found in developing countries such as Indonesia, where severe power imbalances and hierarchies still exist. In a study conducted in Myanmar, Lundsgaard-Hansen et al. [43] emphasised that a mediator can promote smallholders' participation in decision making when interests are compatible. Apgar et al. [7] suggested that participatory action research led by researcher facilitators with an emphasis on equity would help realise more equitable governance arrangements. However, considering the limited availability of skilled facilitators or mediators in developing countries, it is necessary to adopt a methodology that does not have to rely on such rare personnel.

Although these few studies have introduced ways to promote power sharing among stakeholders, more research is necessary to facilitate successful CG in the real world, particularly in developing countries, where strong power imbalances still exist and the number of skilled facilitators is limited. To bridge this gap, the present study explored a concrete methodology to address the issues of power imbalances in CG through a case study of an international cooperation project in West Kalimantan, Indonesia.

## 2. Case Description and Objectives

The following project was selected for the case study because it adopted a unique CG approach to promote effective collaboration between government officers and villagers (i.e. farmers) in Indonesia, where a strong power structure exists. This section describes the background, outline, outcomes of the project, and the objectives of this study.

Tropical peatlands are among the largest reserves of terrestrial organic carbon globally [44]. Indonesia has the largest share of tropical peatlands in the world [45]. Tropical peatlands develop in areas where dead trees do not decompose because of abundant rainfall; instead, they accumulate and form a storage of carbon. However, since the early the 1980s, under government policies and private companies' agricultural and forestry practices, huge areas of peatlands have been drained and trees have been cut down to develop oil palm and pulp plantations [46]. When peat swamp forests are logged and drained, the groundwater level drops; as a result, peatlands become susceptible to fires [47]. Moreover, local farmers follow the custom of burning land to reduce pests and weeds, and to improve productivity in the short term; fire is an inexpensive, quick, and easy method for land clearing for agricultural purposes [48]. When fire is used on drained peatlands, however, these fires often burn wildly and expand considerably [49]. Once a huge fire occurs, peatlands release an enormous amount of greenhouse gases into the atmosphere, making Indonesia one of the largest greenhouse gas emitters globally [44].

The Indonesian government has faced difficulties in preventing fire outbreaks for several reasons. First, the villagers in the project target areas did not consider fire as an issue [50]. Land burnings have been a necessary custom in their daily agricultural practices. Second, although the Ministry of Environment and Forestry of Indonesia (MOEF) has been sending firefighters to spray water on peatlands, this approach appears to be ineffective because peatland fires occur deep underground and they are difficult to extinguish by sprinkling water merely on the surface [50]. Third, because fire control was a task of the central government (i.e. the MOEF), district governments lacked sufficient motivation and resources to control land burning practices in Kalimantan.

From 2010 to 2015, the MOEF implemented a technical cooperation project with support from the Japan International Cooperation Agency (JICA) to develop a participatory peatland fire prevention method. The main target sites were the 16 villages in the Bengkayang and Kubu Raya districts in West Kalimantan Province (Figure 1), one of the major fire-prone areas of Indonesia. The objective was to enhance the capacity of governmental organisations and local communities to prevent peatland fire. The extent of achievement of this goal was evaluated based on two indicators: (1) decrease in the number of villagers who practiced land burning in the targeted villages and (2) decrease in the number of fire hotspots (areas with a high intensity of fire, detected by satellite images) in the targeted villages. Indicator (1) was achieved, since the percentage of villagers who engaged in land burning in the target villages reduced from 71.1% to 12.8% in Bengkayang District, and from 70.9% to 32.5% in Kubu Raya District, during 2010–2015 [51]. Indicator (2) was also achieved, because the average number of fire hotspots in the target villages decreased during 2011–2014 as compared with that in the same area during 2006–2009 [50]. These outcomes can be attributed solely to this project since there were no other projects with similar objectives in these target areas during this period. In April 2015, following these achievements, the project's participatory peatland fire prevention approach was officially adopted as part of the national government's policy; the MOEF continues to allocate budget to participatory peatland fire prevention activities after the project termination.



**Figure 1.** Map of the project's target areas.

The project applied a collaborative approach called the 'village facilitation team' (VFT) approach to support villagers' fire prevention activities. Through this approach, the project formulated a team of six facilitators: a representative of the villagers, a village head, a village officer, two district government officers (DGOs), and a firefighter recruited by the MOEF, who is a villager. To enable these team members to serve as facilitators, the project provided an intensive facilitation training programme over approximately 10 days. The training comprised lectures, group discussions, and field exercises in actual villages (Table 1) that aimed to enable participants to help villagers reduce their land burning practices by sharing information and knowledge. The trainers were mainly Indonesian government officers who previously received training from JICA. VFT members received training not only on facilitation and consensus building, but also on land-use mapping (a participatory process that asks villagers to identify and share the land-use status and related issues with others), policies and regulations on land burning, and non-burning agricultural techniques (e.g. how to make organic fertilisers and

pesticides, value-added products that can grow without the use of fire). The training programme emphasised the importance of equal and transparent discussions and included abundant information for villagers to sustain their livelihoods without practicing land burning. It placed the highest priority on training facilitators to provide sufficient opportunities for villagers to express their opinions, continue discussions until they reach consensus, and make the final decisions. These training principles are consistent with those asserted by Apgar et al. [7], which emphasise equity, stakeholder representation, distribution of authority, and accountability. In addition, trainers stressed on the importance of initiating discussions that did not focus on fire issues. Instead, they included topics directly related to villagers' livelihoods through land-use mapping, since villagers used to have little interest in fire prevention. All team members had to facilitate meetings with farmers to improve their practical communication and facilitation skills. Subsequently, these team members, who were now trained facilitators, visited the 16 target villages and facilitated villagers' discussions on reducing fires using this community-based approach. These meetings were called VFT meetings.

**Table 1.** Outline of the Training Programme for the Village Facilitation Team (VFT)

| Day | Programme | Style |
|---|---|---|
| Day 1 | Ice Breaker, Self Introduction | Exercise |
| | Introduction to Forest and Land Fire | Lecture |
| | Climate Change Mitigation through Forest and Land Fire Prevention | Lecture |
| | Laws and Regulations on Forest and Land Fire | Lecture |
| | Basics of Facilitation and Communication, Concept of Village Facilitation Team | Lecture/Exercise |
| Day 2 | Participatory Land Use Mapping | Lecture |
| | Making a Village Land Use Map | Exercise |
| | Land Management Planning | Exercise |
| | Developing Village Ordinance for Fire Prevention | Exercise |
| Day 3–5 | Collecting Information of Villages | Field Exercise |
| | Interview to Villagers and Farmer Groups | Field Exercise |
| | Implementing Focus Group Discussions | Field Exercise |
| | Facilitation of Village Meetings | Field Exercise |
| Day 6 | Presentation on Outcomes of the Field Exercise | Presentation |
| | Discussion on Outcomes of the Field Exercise | Discussion |
| | Feedback from the Trainer and Other Participants | Discussion |
| Day 7–8 | Agricultural Practices without Land Burning | Lecture |
| | Techniques for Making Organic Fertilizers/Pesticides/Herbicides | Field Exercise |
| | Promoting Business in Villages/Diversifying Agricultural Products | Lecture/Exercise |
| | Fire Prevention Techniques | Lecture/Field Exercise |
| | Discussion on Non-Burning Agriculture Techniques and Business | Discussion |
| Day 9–10 | Preparation for Facilitation in Project Target Villages | Exercise |
| | Presentation on the Plan for Facilitation in Project Target Villages | Presentation |
| | Feedback from the Trainer and Other Participants | Discussion |

The project intentionally merged VFT meetings with existing village meetings so that villagers and other stakeholders could easily participate without being nervous or experiencing any additional burden. Anybody interested in joining these meetings were welcome to participate, regardless of their occupation, gender, education level, or ethnicity. The training also encouraged VFT members to provide support to people who were less educated or unfamiliar with the Indonesian language by drawing pictures or translating their discussions.

The following is the typical process of the discussions held during VFT meetings. First, facilitators started discussions on topics related to land use and livelihood. Usually, villagers were asked to create a land-use map to illustrate their agricultural and forestry practices, as well as land ownership and land-use boundaries. Second, using these maps, facilitators asked villagers to identify concerns regarding land-use practices and discuss how they could improve the situation. For example, in one village, villagers discussed how to produce value-added products (e.g. banana cake) to generate more income. During these discussions, villagers occasionally mentioned the use of fire in their agricultural practices, and facilitators gradually shared information on the risks of fire use. Since the government has set legal punishments for the use of fire, villagers can be arrested and a huge penalty can be imposed if the police find them using fire. Although facilitators did not force villagers to stop using fire, they gently shared the information for their reference.

When villagers became aware of such legal punishments, they started discussing methods to manage the risks of using fire, perhaps because they wanted to avoid punishment. In many cases, the top priority for villagers was their livelihood and income generation. Since fire used to be an integral part of their farming practices, it was difficult to stop using it suddenly. Thus, farmers had to think about how they could reduce fire use and sustain their livelihood simultaneously [52].

As a result, most target villages requested that facilitators (i.e. DGOs with expertise in agriculture) provide training on non-burning agricultural techniques (e.g. making organic fertilisers or producing products that grow without fire usage). Moreover, the villagers in all 16 target villages started developing self-rules on fire use, some of which eventually became official village ordinances. Thus, they strived to prevent legal punishments while attempting to identify alternative methods to sustain their livelihoods. As the VFT approach allowed all interested stakeholders to participate and make their voices heard, and facilitated knowledge sharing and mutual learning processes, it basically aligns with the concept of 'knowledge brokerage' explained by Partidario and Sheate [41].

Conflicts did occur during VFT meetings, mostly related to land-use boundaries and rights. Since some of the areas within the project's target villages included land without clear boundaries, some villagers ran into conflict when deciding where and how to utilise the land. However, since participants in VFT meetings were only DGOs, firefighters hired by the MOEF (mostly villagers), village heads, village officers, and other villagers who shared common objectives, such as income generation and social welfare improvement, severe conflicts were less likely to occur.

The VFT approach is a unique CG approach in two aspects. First, it is uncommon for DGOs and local villagers to develop a single team and receive the same training programme, particularly in countries such as Indonesia, that have strong hierarchies and a huge educational gap among the population. Second, in other projects, facilitators tend to be individuals such as government officers, consultants, or NGO staff, who are often considered as outsiders by local communities. In this project, villagers themselves became facilitators, and more than one villager served as a facilitator. These two points made the VFT approach a unique method for promoting CG.

To examine how collaboration between DGOs and villagers can be promoted, and how power imbalances between powerful and less empowered stakeholders can be alleviated, we explored the following two research questions: 1) what role did the VFT approach play in the process of CG? and 2) what role did the VFT approach play in

mitigating the power imbalances between DGOs and villagers? To answer these research questions, we used the following analytical framework.

## 3. Methods

### 3.1. Analytical framework

Ansell and Gash [1] reviewed 137 cases of CG from the literature and concluded that three starting conditions and two influential factors play a significant role in the collaborative process and in producing the outcomes of CG. These are (A) power–resource–knowledge asymmetries, (B) incentives for and constraints on participation, (C) prehistory of cooperation or conflict (initial trust level), (D) institutional design (participatory inclusiveness, forum exclusiveness, clear ground rules, and process transparency), and (E) facilitative leadership (including empowerment), respectively. Our analysis was based on the CG model developed by Ansell and Gash [1] because it is a comprehensive framework that encompasses the literature on CG case studies, researchers in relevant fields have frequently cited this article, and the model smoothly aligns with the target project's activities, which pursued successful implementation of CG.

However, this model has certain limitations. As it is largely built on case studies from Western industrialised countries and does not consider alternatives when conditions A–E are not met. In developing countries, conditions A–E, particularly A are often unfavourable. The literature has suggested that a strong imbalance in power relations, gaps in negotiation skills, and lack of trust are among the major obstacles to successful implementation of the collaborative approach [9]. Thus, conditions A–E may not produce successful CG outcomes unless an external intervention can improve or strengthen them. In other words, interventions would be necessary to mitigate power or knowledge asymmetries, provide incentives for participation, build trust, improve institutional design, and strengthen facilitative leadership. Therefore, the present study focused on the role of external factors and processes that may improve or strengthen these conditions and factors, particularly condition A, to ensure the successful implementation of CG.

To adjust the analytical framework according to our research questions, we added the following two components (i.e. facilitation and knowledge sharing), which have been suggested to contribute to the better management of power relationships. For instance, Apgar et al. [7] highlighted that facilitators can help build more equitable governance arrangements, while Partidario and Sheate [41] explained that effective knowledge sharing can create opportunities for power sharing. As mentioned earlier, these two principles were incorporated in the VFT approach. We hypothesised that the approach can improve the starting conditions of Ansell and Gash's CG model [1] (particularly condition A). Thus, our study assessed the role of the VFT approach in achieving CG, particularly focusing on the process of power mitigation based on the framework that combined the Ansell and Gash's model [1] and the findings of Apgar et al. [7] and Partidario and Sheate [41] (Figure 1).
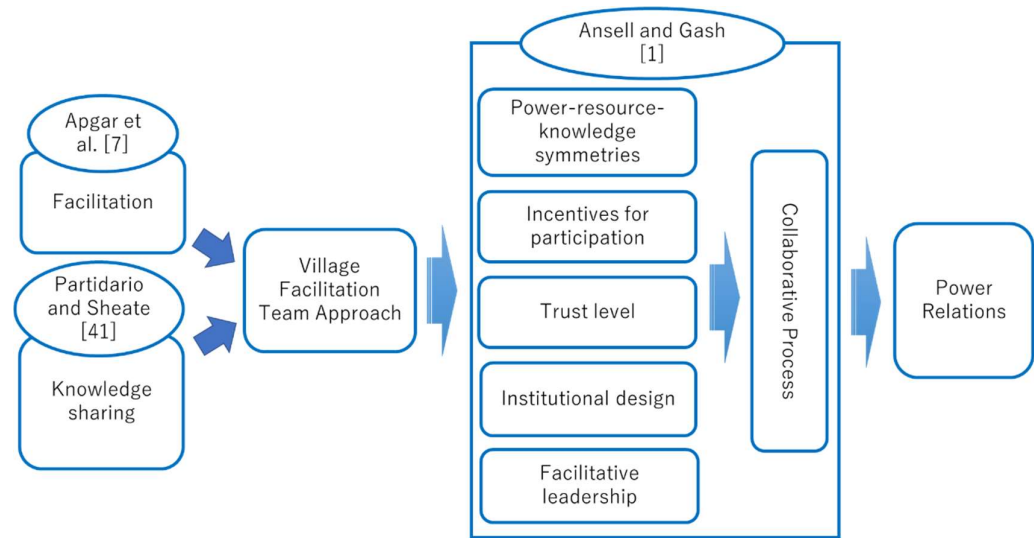
**Figure 2.** Analytical framework.

*3.2. Data collection*

This study was conducted from October 2017 to March 2018, using a combination of qualitative and quantitative methods. The target areas of this research were Kubu Raya District and Bengkayang District in West Kalimantan Province, Indonesia, which encompasses the 16 target villages in which the VFT approach was implemented. Among these 16 villages, four (i.e. Limbung and Mekar Sari in Kubu Raya District, and Sungai Jaga A and Sungai Raya in Bengkayang District) were selected as target villages for the interview survey. Eight villages (Limbung, Mekar Sari, Rasau Jaya I, and Rasau Jaya Umum in Kubu Raya District, and Sungai Jaga A, Sungai Raya, Sungai Duri, and Sungai Pangkalan II in Bengkayang District), which are representatives of the socioeconomic and cultural diversity of the 16 target villages, were selected for the questionnaire survey. The four villages for interview surveys were randomly selected from these eight villages.

Majority of the villagers in the target villages were farmers (89% of the respondents). The major products in these villages include rice, maize, rubber, pepper, coconut, chillies, pineapples, and aloe. Nearly 100% of the farmers were individual landowners, owning one or two hectares of land. Majority of the villagers were elementary school graduates (58%) and a small proportion had studied at junior (18%) or senior high school (20%).

First, semi-structured interviews were conducted with 20 randomly-selected informants (participants of VFT meetings) to explore their perceptions regarding the roles of the VFT approach in relation to the analytical framework. Five informants were selected from each target village. Among them, eight informants were VFT members and 12 were non-VFT members. In-depth, semi-structured interviews lasting 1–1.5 hours were conducted with each informant.

Subsequently, based on the results of the semi-structured interviews, we surveyed 200 randomly-selected respondents in eight villages (25 respondents from each village). The questionnaire was developed based on the analytical framework described earlier, and on the literature focusing on effective methods for facilitation, and equal and collaborative decision-making processes [53–65]. It comprised questions (23 questions for all respondents; 11 questions only for VFT members) that aimed to quantify respondents' perceptions of each activity related to the VFT approach using a four-point Likert scale (4: Strongly agree, 3: Agree, 2: Disagree, 1: Strongly disagree).

Although the questionnaires were written in Indonesian, the Indonesian co-authors met all respondents individually and provided explanations on the study's purpose, obtaining informed consent. As they explained the exact meaning of each question, we

could obtain accurate data. While the first author was an officer at the JICA Indonesia Office in 2012–2014 and was in charge of the natural resource management sector, he did not participate in the interviews or questionnaire surveys in the field to avoid biased responses. All respondents were asked to use the four-point scale and the co-authors recorded the answers on the questionnaire sheet. All the surveys were conducted by the Indonesian co-authors, who are researchers at the University of Tanjungpura in Pontianak, West Kalimantan, Indonesia. Because the co-authors were independent of the Indonesian government and JICA, respondents could freely express their honest impressions of the project activities. In addition, all interviews/questionnaire surveys were conducted individually (only with the surveyor and respondent), so that respondents did not have to be polite when expressing their opinions.

Before starting the questionnaire survey in the target villages, we conducted a pre-test in a non-target village to confirm the relevance and applicability of the questions. The questionnaire was finalised based on the results of the interviews and pre-tests. Combining the questionnaire and interview data enabled us to understand the overall picture of peoples' perceptions and each participant's perspective.

## 4. Results

### 4.1 Power–resource–knowledge asymmetries

The survey results indicated that the strong power inequalities that existed at the early stages of the project were alleviated through the facilitation training and series of VFT meetings. In total, nearly 80% of facilitation training participants felt nervous at the early stages because they thought that their knowledge and skills were insufficient as compared with those of other participants, particularly DGOs; 67% of all respondents felt the same way in the early stages of VFT meetings. Further, 76.5% of the respondents felt nervous about joining meetings with people they did not know well, particularly DGOs. Interviewees confessed that villagers generally felt nervous in front of DGOs because such discussions on village activities rarely occurred with both parties at the same table.

All VFT respondents (i.e. DGOs and village representatives) acknowledged that those who received training had equal opportunities to obtain knowledge and skills, and that they acquired a certain amount of new knowledge and practical skills through the facilitation training. Almost 80% of the VFT respondents admitted that appropriate support was provided by the trainers to less-educated participants in case they had difficulties in keeping up with the training. At the end of the facilitation training, nearly 80% answered that there was little gap in knowledge or skills among the participants, including the DGOs.

In addition, a vast majority of the respondents (98%) perceived that information and knowledge were shared equally with all participants during VFT meetings, and 91.5% acknowledged that appropriate support was provided by VFT members when participants had difficulties in understanding the discussions (Figure 2). Interviewees reported that VFT members avoided using scientific or technical terms, and they provided support to translate or visualise the main discussion points for participants unfamiliar with the Indonesian language. Further, 64% of the respondents answered that they understood almost everything about the discussion topics during VFT meetings.
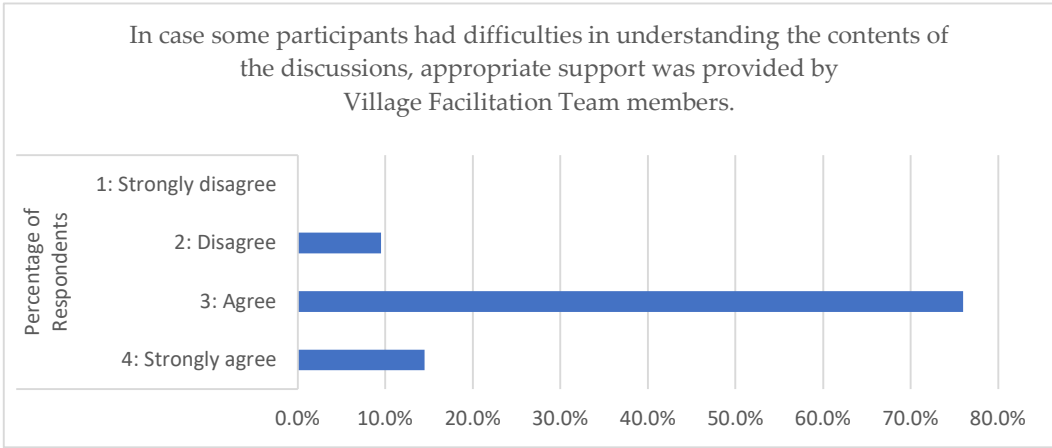
**In case some participants had difficulties in understanding the contents of the discussions, appropriate support was provided by Village Facilitation Team members.**



**Figure 3.** Respondents' perceptions on the support provided by the Village Facilitation Team members (n=200).

In the later stages of VFT meetings, 75% of the respondents perceived that there were small gaps in participants' knowledge and skills, including those of DGOs (Figure 3). Further, 79% responded that they could express their opinions freely, without being nervous in the later VFT meetings despite the presence of DGOs (Figure 4). Nearly all respondents (94.5%) answered that they felt comfortable with expressing their opinions because some village representatives facilitated the meetings as VFT members (Figure 5). It is important to note that 81% of the survey respondents were friends, families, relatives, or neighbours of the villagers trained to become facilitators.
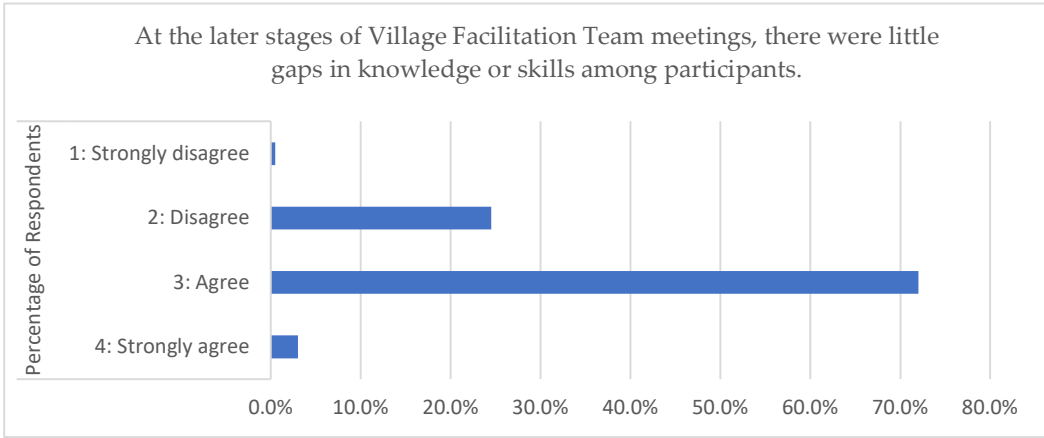
**At the later stages of Village Facilitation Team meetings, there were little gaps in knowledge or skills among participants.**



**Figure 4.** Respondents' perceptions on knowledge gaps in later stages of the Village Facilitation Team meetings (n=200).
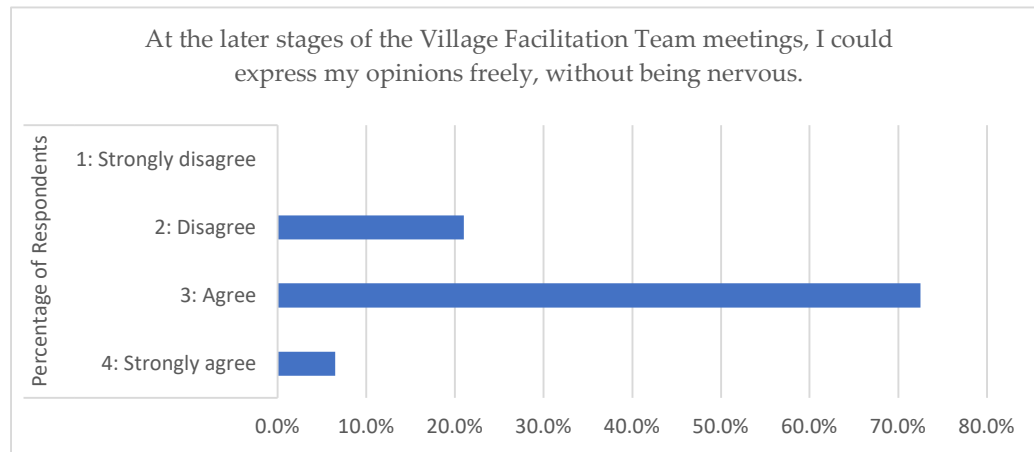
**Figure 5.** Respondents' perceptions regarding nervousness in later stages of the Village Facilitation Team meetings (n=200).
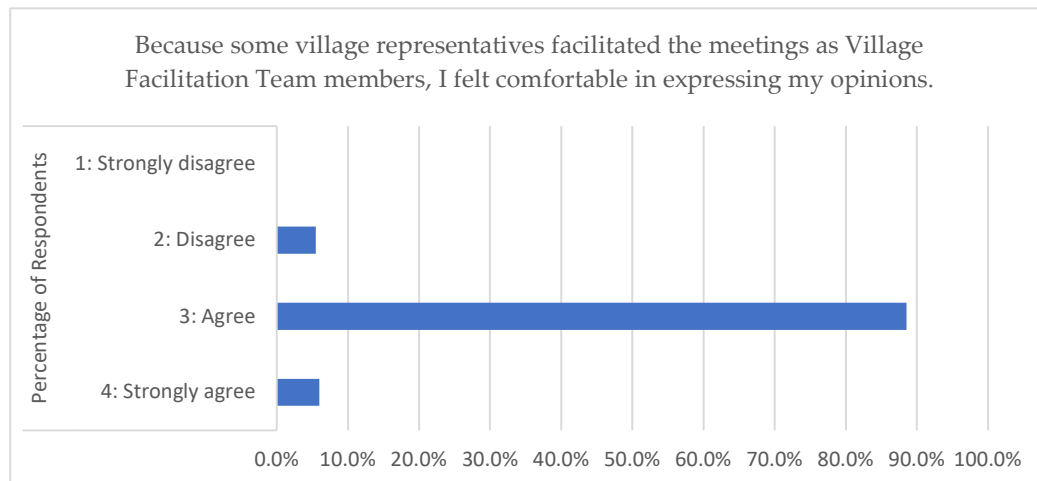


**Figure 6.** Respondents' perceptions on facilitation by village representatives during Village Facilitation Team meetings (n=200).

*4.2. Incentives for and constraints on participation*

The survey results indicated that majority of the project participants had certain incentives to join the meetings, and no serious constraints were observed. Most participants freely participated in VFT meetings to obtain knowledge and maintain interpersonal relationships. A total of 97% of the respondents answered that they participated in VFT meetings to obtain useful information or knowledge related to their livelihoods, and 87.5% participated because they were reluctant to miss the opportunity to obtain important information. Interviewees mentioned that they expected to learn about agricultural and forestry techniques, including measures to improve productivity, manage pests and weeds, and produce value-added products. Some also reported experiencing anxiety about missing essential information on land burning rules and about incurring disadvantages if they were unaware of the laws and regulations.

Moreover, all respondents answered that they participated in VFT meetings to maintain good relationships with friends, neighbours, family members, relatives, village representatives, and other villagers. Some interviewees referred to the importance of helping each other in the community. They acknowledged that, since they were

economically poor, less educated (i.e. majority were elementary school graduates), and dependent on agriculture, maintaining good relations with other community members is vital for their survival.

In contrast, interviewees reported problems related to access and time constraints when joining VFT meetings. A few respondents mentioned that they had difficulties in reaching the meeting place because of the limited availability of fuel. However, this concern was mostly resolved, at least during the project period, because the project provided financial support for villagers to purchase gasoline for their motorcycles. Another constraint was that farmers were often too busy with their daily agricultural activities. However, since VFT meetings were usually organised in the evenings, when most farmers had finished their work in the field, sufficient time was allocated. Therefore, no significant constraints to using the VFT approach were observed.

### 4.3. Prehistory of cooperation or conflict (initial trust level)

The survey results indicated that there had been no serious conflicts among the villagers and DGOs, and that the VFT approach may have strengthened the trust among them. Most respondents (99%) answered that they did not experience conflicts with other participants, including DGOs, before joining VFT meetings.

Villagers and DGOs perceived that they strengthened trustworthy relations by participating in the facilitation training and VFT meetings for one or two years as a team. All VFT respondents who received facilitation training replied that they got to know each other better; interviewees mentioned that participants were together for almost the entire duration of the 10-day training programme, which helped them build trust. Overall, 86% of the VFT respondents perceived that they were able to build mutual trust with other participants by the end of the facilitation training.

The survey results also indicated that training on non-burning agricultural techniques helped strengthen the relationships between DGOs and other villagers. All agreed (58% of the respondents 'strongly agreed') on this point. Most interviewees perceived that DGOs' efforts to improve villagers' livelihoods enhanced their feelings of trust in the former.

### 4.4. Institutional design (participatory inclusiveness, process transparency, clear ground rules, and forum exclusiveness)

The study findings demonstrated that the VFT approach mostly fulfilled the components of a sound institutional design suggested by Ansell and Gash [1]. Although some villagers mentioned that VFT meetings were often attended by group leaders assigned by the village heads or village offices, 71.5% of the respondents perceived that VFT meetings were open to anybody interested in joining the discussion. Not only the key stakeholders, such as the leaders of farmers' or women's groups, but also elders, young people, and schoolteachers participated in these meetings. Some interviewees mentioned that women were also able to join VFT meetings if they wanted to participate. A vast majority (96%) agreed that most participants actively joined VFT meetings. The decisions made during VFT meetings and progress of activities were reported and shared with relevant stakeholders, including the district government, village office, MOEF, and villagers.

Further, 98.5% of the respondents acknowledged that all participants were treated equally during VFT meetings. Nearly all respondents (99%) reported that all participants' opinions were listened to and respected by other participants, regardless of their occupation, gender, or educational level. Interviewees referred to the fact that VFT members or trainers supported participants from ethnic minority groups by translating their explanations into local languages when the latter were unfamiliar with Indonesian. Nearly 90% of the respondents perceived that participants in VFT meetings made efforts to respect other participants' opinions even if they were different from their own. Interviewees mentioned that it was sometimes difficult to reach consensus during VFT

meetings. On such occasions, VFT members made efforts to listen to participants' ideas individually, respecting their opinions as much as possible, and they attempted to arrive at a point on which all attendants could agree. A vast majority of the respondents (99%) acknowledged that VFT members made efforts to reach consensus by combining all participants' opinions. In total, 86% acknowledged that decisions on the topics of VFT meetings were made when most participants were in attendance and 66.5% perceived that most important decisions were made by villagers rather than by VFT members. Respondents acknowledged that, for some decisions, it was essential to obtain additional approval from the district government after VFT meetings because official approval was necessary for budget allocation. This might explain why 33.5% of the respondents perceived that important decisions were not necessarily made by the villagers.

Nearly 60% of the respondents agreed that there were clear ground rules on how to participate in discussions when joining VFT meetings. For instance, some interviewees explained that paying attention, listening to other participants' ideas, and not talking or interrupting while others were speaking were some of the ground rules introduced at VFT meetings that helped participants listen to other people's opinions carefully and express their own ideas. Regarding forum exclusiveness, as we confirmed that no other collaborative project or activities with similar goals were being conducted in the target villages, this component was satisfied.

### 4.5. Facilitative leadership (including empowerment)

The results showed that villagers who were less educated and less empowered were able to obtain facilitation skills and contribute to enhancing facilitative leadership in the target villages. All VFT respondents agreed that participants had equal opportunities to obtain knowledge and skills and that they were able to obtain an abundance of new knowledge and practical skills through the facilitation training. Furthermore, majority of the VFT respondents (nearly 90%) acknowledged that the training helped them obtain skills in combining different people's ideas and building consensus. In fact, 99% of the VFT meeting participants perceived that the VFT members made efforts to build consensus by considering all participants' opinions.

Almost 80% of the training participants answered that appropriate support was provided by trainers when participants had difficulties keeping up with the programme. The interviewed VFT members explained that trainers attempted to avoid the use of scientific or technical terms to ensure that all participants could understand the content. These forms of assistance may have enabled less-educated villagers to increase their capacity to become eligible facilitators, and could have led to their increased empowerment. Further, the survey results indicated that nearly 80% of the training participants thought that the gap in knowledge or skills among participants including DGOs was negligible at the end of the facilitation training.

### 4.6. Collaborative process

The survey findings suggested that the VFT approach went through the major processes explained in Ansell and Gash's CG model [1], which are 'face-to-face dialogue', 'trust building', 'commitment to process', 'shared understanding', and 'intermediate outcomes'. First, the VFT members regularly joined the village meetings and had face-to-face discussions almost every month, which continued for 1.5–2 years in most villages. Second, as mentioned earlier, villagers and VFT members had abundant opportunities to communicate with one another through VTF meetings and other relevant activities, which promoted mutual understanding and contributed to trust building. In particular, as all respondents acknowledged that training on non-burning agricultural techniques helped strengthen the relationship between DGOs and other villagers, it is evident that identifying issues together and cooperating to improve villagers' livelihoods played an important role in building trust.

Third, majority of the respondents agreed that VFT members respected all participants' opinions, and that the villagers themselves made most of the decisions

during meetings. These findings align with the arguments proposed by Ansell and Gash [1], that respecting stakeholders' interests, and ensuring fair and transparent procedures are critical for strengthening commitment. Fourth, interviewees shared a common perception that VFT meetings were conducted with a common goal of achieving fire reduction and livelihood improvement. In addition, majority of the respondents answered that information was equally shared, less-educated participants received adequate support, and most participants understood and actively joined the discussions. Finally, discussions on non-burning agriculture techniques produced intermediate outcomes such that 90% of the respondents obtained ideas about how they could tackle the issue of fire. Thus, the present results indicate that the VFT approach satisfied the five components of the collaborative process.

## 5. Discussion

The following major findings were obtained from the semi-structured interviews and questionnaire surveys: equal knowledge sharing was promoted among DGOs and villagers during both facilitation training and VFT meetings through the provision of appropriate support; most respondents perceived that participants' opinions were respected regardless of their ethnicity or differing opinions; VFT members made efforts to build consensus by integrating participants' opinions; important decisions were mostly made by villagers; villagers felt more comfortable in expressing their opinions because other villagers facilitated the meetings; trustworthy relationships were built between DGOs and villagers through training on non-burning agricultural techniques and VFT meetings, which provided them opportunities to consult with DGOs; and having participated in VFT meetings for one or two years, most respondents perceived that they could express their ideas freely in front of DGOs.

Although researchers have studied numerous cases of CG, and power has been pointed out as a major challenge in CG, few studies have discussed how to mitigate the power imbalances in CG, particularly in developing countries with strong hierarchies, such as Indonesia. Ensuring effective participation in the context of inequitable power relations remains a difficult issue [27], and it is still poorly understood in the literature [28].

The present findings suggested that the VFT approach played an important role in improving or strengthening the starting conditions and influential factors of the CG model suggested by Ansell and Gash [1]. It also mitigated the power imbalances between powerful and powerless actors (i.e. DGOs and villagers, respectively). We presume that the negative power of DGOs defined by Prabowo, Maryudi, and Imron [17] was alleviated through external interventions, while the positive power of villagers to realise their rights, as explained by Gaventa [18], was strengthened. Importantly, the VFT approach supported less empowered participants (e.g. by avoiding technical terms, visualising the main discussions points, and translating them into local languages), which seemed to help mitigate power relations by enhancing the capacities of less-educated villagers. We emphasise the significance of this effort in avoiding the risk of exacerbating the vulnerabilities of powerless actors in the absence of appropriate support, as claimed by Begg [66].

Based on our findings, we suggest that the following unique approach helped mitigate power imbalances between DGOs and villagers by improving the starting conditions and influential factors of Ansell and Gash's CG model [1]. First, because both government officers and villagers participated in the same facilitation training programme, gaps in knowledge and skills may have been minimised. Although some less-educated villagers seemed to experience difficulties in keeping up with certain parts of the training, trainers' efforts to limit the use of scientific and technical terms, visualise explanations with drawings, and translate explanations into local languages helped villagers obtain a similar level of knowledge and skills as DGOs by the end of the facilitation training. In addition, VFT members were committed to sharing information equally with all participants during VFT meetings, which further helped reduce

knowledge gaps. Moreover, DGOs' provision of training on non-burning agricultural techniques also played an important role in bridging the gaps in their knowledge. Thus, we presume that 'knowledge brokerage', as suggested by Partidario and Sheate [41], was realised through the aforementioned equal knowledge sharing that occurred in the VFT approach.

Second, VFT members were trained to allow villagers to discuss, agree, and make decisions in an equal and transparent manner through effective facilitation. Although it is generally common for Indonesian government officers to make decisions on natural resource management [31,33], the fact that VFT members, including DGOs, were trained to allow villagers to make their own decisions allowed the latter to influence the decision-making processes. This process may have reduced the gaps in authority, which has been identified as one of the sources of power [30]. Continuing such equal and transparent communication in the long run thus mitigated the power imbalances that existed before.

Third, the VFT members (i.e. facilitators) were villagers of the target villages. As Eversole [37] and Tsubouchi [67] asserted, professionals or development projects are foreign to local communities when facilitators are individuals from outside the village (e.g. government officers, consultants, or NGO staff). Villagers may have been unable to express their feelings and opinions honestly during discussions if facilitators had been outsiders. However, in this project, three of the six VFT team members were representatives from the target villages. Although villagers tend to become nervous in front of government officers, it was relatively easy for them to join the discussions because VFT meetings were also led by villager facilitators whom they knew well. Indeed, majority of the villagers were friends or neighbours of the villager facilitators. Thus, the existence of villager facilitators may have also mitigated the power relations between the two stakeholders.

Fourth, DGOs' provision of training on non-burning agricultural techniques helped build trust among villagers. Developing trust can improve collaboration through honest participation [68]. Moreover, Ran and Qi [69] suggested that trust building could positively influence the management of power relations. While the literature indicates that government officers in Indonesia rarely take local people's needs into consideration [33], such trustworthy relationships may have offered villagers more opportunities to express their concerns or requests to government officers. Although our data may be insufficient to determine whether this trust alleviated power imbalances, villagers had better chances to communicate with government officers based on the existence of trusting relations. We conclude that the above-mentioned unique efforts realised more equitable CG by alleviating the gaps in knowledge and resources. Our findings are in line with those reported by Apgar et al. [7], which stressed that promoting equity, trust, and shared analysis through facilitation help build more equitable governance. As suggested by Riggs et al. [70], these external interventions may have enabled the creation of a platform which allowed vertical and horizontal communication outside formal government structures.

One limitation of this study is that the main stakeholders were limited to DGOs and villagers (including village heads, village officers, and firefighters hired by the MOEF, who were mostly villagers), meaning that severe conflicts were unlikely to occur. If large-scale oil palm industries were one of the major stakeholders, the outcomes may have been different. Thus, the VFT approach is applicable only when no severe conflicts arise.

To conclude, building a joint team of DGOs and villagers, providing a common facilitation training programme, promoting equal knowledge sharing, providing appropriate support for the powerless, training villagers as facilitators, and allowing villagers to make their own decisions mitigated the power imbalances between the two groups.

## 6. Conclusion

Although CG has the potential to realise sustainable natural resource management by enabling various stakeholders to engage in management practices, researchers have highlighted its shortcomings because of the power imbalance between powerful elites and

less empowered local communities. Such power imbalances tend to be particularly severe in developing countries like Indonesia because of hierarchical governance structures, which make it difficult to fundamentally address the problem. Indeed, this issue remains underexplored in the literature.

This study examined the role of a unique CG approach that aimed to mitigate power imbalances among the stakeholders of a peatland fire prevention project conducted in West Kalimantan, Indonesia, with support from JICA. While similar projects have rarely been observed in countries such as Indonesia, this project attempted to build a collaborative team of DGOs (i.e. powerful stakeholders) and ordinary villagers (i.e. unempowered stakeholders), have them participate in the same facilitation training programme, trained the village representatives as facilitators, and let them conduct the activities as a team for one or two years, while consistently emphasising equal knowledge sharing and shared decision making through facilitation. We argue that these attempts alleviated the asymmetries in knowledge and resources, which are identified as one of the starting conditions in Ansell and Gash's CG model [1]. The survey results demonstrated several positive outcomes, particularly in equal knowledge sharing, consensus-based and shared decision making, and trust building.

Our results also highlighted that the existence of villager facilitators served as a catalyst in reducing the power gaps between government officers and villagers. The fact that majority of the respondents who used to feel nervous in the presence of government officers were able to express their opinions freely after participating in the series of VFT meetings over one or two years illustrates that power imbalances were mitigated through this project's approach. Although some less-educated villagers seemed to have had difficulties in keeping up with the training or discussions, the survey results suggested that VFT members' assistance alleviated such obstacles. It is important to afford sufficient consideration to less-educated stakeholders' needs to avoid the risk of further marginalising them in the absence of appropriate support.

Lastly, we conclude that the VFT approach played an important role in mitigating the power imbalances that existed between government officers and villagers through the process described herein. The major contribution of our study was that it suggested a concrete measure and process for mitigating power imbalances in CG; we argue that Ansell and Gash's CG model [1] with appropriate external interventions to improve the conditions and factors can contribute to a better management of power relations. We recommend that practitioners who conduct projects through collaborative approaches consider building joint teams of stakeholders and provide the same training to all stakeholders, with sufficient support for the powerless. Training less-empowered stakeholders as facilitators is also recommended.

Future research should focus on examining the effectiveness of these approaches in cases with a greater number of stakeholders with different interests, such as oil palm industries or central government officers. In particular, more studies need to examine cases with conflicts where stakeholders' interests are non-compatible. Although further research is necessary to assess the applicability of these methods in other socioeconomic and political contexts, this study can help overcome major obstacles in achieving successful CG in developing countries.

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