

Community Forest Management: a socially innovative solution to address forest conservation? The case of Calleria Native Community (Ucayali, Peru)

Diego Calero Valdez

KU Leuven. Sustainable Development Program

ORCID: 0000-0002-4987-2489

Abstract: Given the increasing speed of deforestation in the Amazonia and the problems faced by local communities and indigenous people who depend on forestry resources, the need for sustainable and collaborative forest management is evident. This essay evaluates the extent to which community-based conservation strategies could be framed into the social innovation approach, based on the experience of Community Forest Management in Callería Native Community (Ucayali, Peru). To address this purpose, different academic sources on Community Forest Management experiences within and outside the Amazon region and the case study itself were consulted, as well as other sources referring to the concepts of conservation, socio-ecological systems, governance of the commons and social innovation. The conclusion of this essay is that Community Forest Management could be largely framed as a solution within a social innovation approach, because it has enabled the Callería Native Community to achieve the three dimensions of social innovation: meet their human needs, develop new relationships and organizational structures, and increase their socio-political capacity. However, not all community conservation strategies are the same, as they are context specific.

Keywords: Peru. Ucayali. Social Innovation. Community Forest Management. Community-based Conservation. Socio-ecological Systems.

Manejo Forestal Comunitario: ¿una solución socialmente innovadora para abordar la conservación de los bosques? El caso de la Comunidad Nativa Callería (Ucayali, Perú)

Resumen: Dada la creciente velocidad con la que avanza la deforestación en la Amazonia y los problemas que enfrentan las comunidades locales e indígenas que dependen de los recursos del bosque, se hace evidente la necesidad de una gestión forestal sostenible y colaborativa. En este ensayo se evaluó en qué medida las estrategias de conservación basadas en comunidades pueden ser enmarcadas dentro del enfoque de la innovación social. Para alcanzar este objetivo, se abordó la experiencia de Manejo Forestal Comunitario en la Comunidad Nativa de Callería, en el departamento de Ucayali, Perú. La evaluación se realizó mediante una revisión de fuentes bibliográficas acerca de las experiencias de Manejo Forestal Comunitario dentro y fuera de la Amazonía y del propio caso de estudio; así como otras fuentes referidas a los conceptos de conservación, sistemas socio-ecológicos, gobernanza de los comunes e innovación social. Como conclusión de este ensayo se establece que el Manejo Forestal Comunitario podría enmarcarse en gran medida dentro del enfoque de innovación social, ya que a la Comunidad Nativa de Callería le ha permitido alcanzar las tres dimensiones de la innovación social: satisfacer sus necesidades humanas, desarrollar nuevas relaciones y estructuras organizacionales, así como incrementar su capacidad socio política. No obstante, no todas las estrategias de conservación comunitaria son iguales, ya que varían de acuerdo con el contexto.

Palabras clave: Perú. Ucayali. Innovación social. Manejo Forestal Comunitario. Conservación basada en comunidades. Sistemas socioecológicos.

Diego Calero Valdez

Student of the Sustainable Development Master's Program at the KU Leuven in Belgium. Researcher in the fields of sustainable management of natural resources, sustainable development, global climate change and biodiversity conservation.

E-mail: dcdiegocalero@gmail.com

1. Introduction

The Peruvian Amazonia is one of the most biodiverse ecosystems worldwide and an important carbon sink (CIFOR, 2019; Martel & Cairampoma, 2012). However, it is also one of the most threatened and vulnerable biomes (Nalvarte, 2015) due to the degradation and deforestation caused by unsustainable extraction of natural resources, expansion of urban areas and construction of road infrastructure (CIFOR, 2019), which have caused, among others, the loss of more than 2 million ha of Peruvian rainforest in the last two decades (DAR, 2021).

Despite the richness of the Peruvian Amazonia, indigenous people who live in native communities across this territory are among the poorest and most disadvantaged populations in Peru, as a result of its marginalization, governmental corruption, competing interests of different stakeholders, and the illegal exploitation of natural resources by external actors (CIFOR, 2019; Nalvarte, 2015). Consequently, considering that indigenous people depend on forest goods and services to meet their basic needs, a sustainable management of the ecosystem is of utmost significance (Nalvarte, 2015). Community Forest Management (CFM) is seen as a mean to partially address this challenge by supporting indigenous and local communities to improve their well-being while conserving forests (CIFOR, 2019). Although it is complex to determine a definitive concept of CFM due to its nature, it is important to point out two fundamental features that define it. The first is that CFM should be developed locally, and the second is that it should be organized collectively to allow community members to share both responsibilities and benefits (Sabogal, de Jong, Pokorny & Louman, 2008).

The main objective of this paper is to evaluate to what extent community-based conservation strategies -such as CFM- could be framed under a social innovative approach. To this end, we first present the Callería Native Community case overview and describe its CFM experience, which is then analyzed under the theoretical framework of social innovation. For the purpose of this paper, the social innovation framework is related with the way social groups

respond to socio-environmental problems through three dimensions: (i) the satisfaction of their material and non-material unsatisfied needs, (ii) the construction or change of social relationships and (iii) their empowerment (Mehmood & Parra, 2013).

2. Case Study Overview

Located in the Peruvian Amazonia, the Callería Native Community is one of the 231 existing communities in Ucayali region and comprises 71 families from the shipibo-conibo indigenous group (Nalvarte, 2015). The use of forest resources, mainly wood, is one of the most important economic activities of the community (Gavaria & Sabogal, 2013). However, exploitation of these resources had not been sustainable until 2001, due to uncontrolled illegal logging and wood extraction carried out by outsiders, who gave in exchange small payments to community members (Gavaria & Sabogal, 2013; Nalvarte, 2015).

CFM has been implemented by the Callería Native Community since 2001, with the technical support of the NGO Partnership for Integrated Research and Development (AIDER, by its acronym in Spanish), and the Dutch Embassy's funding. Since then, the community stopped trading standing trees and participating in the illegal logging business and started managing forest resources sustainably. These cover 63% of their territory. As a result, they obtained the FSC Voluntary Forest Certification for timber production purposes in 2005, thus becoming a good example of forest management in Peru to build upon (Gavaria & Sabogal, 2013; Nalvarte, 2015). Consequently, this case study is considered a sustainable community-based forest management example with the aim of using forest resources responsibly and ensuring the regeneration of the ecosystem, contributing to the achievement of the Sustainable Development Goal 15, Life on land.

3. Community-based conservation and the governance of the commons

As mentioned before, the Callería Native Community is comprised by 71 families who are ethnically related and socially cohesive. Community organization is based on relations of reciprocity and distribution of goods among its members, with the aim of maintaining autonomy in terms of resource management within their territory, which is part of their shipibo-conibo identity (Sabogal et al., 2008). However, this community, as every group of people, is diverse and heterogeneous. Therefore, not all community

members have the same needs or share the same interests and points of view, which has to be considered when analyzing the success of conservation strategies (Miller, Caplow, & Leslie, 2012). When talking about management of common pool resources, like a forest, a collaborative governance approach is required to include the different interests of community members and to define the communal needs towards the improvement of their well-being, which according to the social innovation framework, could be material (i.e., work, food, infrastructure) and non-material (i.e., culture, identity, rights), though sometimes actors may participate in the process only to achieve their own interests and not the common good (Bodin, 2017; Parra, 2013).

In the case of the Callería Native Community, CFM objectives were defined in a communal assembly since the beginning of the process, the main of which was the social and economic development of the community and the sustainable management of the forest, as their economy and well-being depend on the resources provided by this ecosystem (Bueno, Piber, & Sologuren, 2006; Nalvarte, 2015). These kinds of objectives are common in socio-ecological systems, even though environmental conservation and socio-economic development are in most cases contradictory (Miller, Caplow, & Leslie, 2012). However, integration of those objectives has shown to be a key factor for the success of conservation strategies, evidencing that economic development is possible without depleting ecosystems (Fischer, et al., 2015; Miller, Caplow, & Leslie, 2012). The community-based conservation approach incorporates these objectives, taking into consideration the significance of community member incentives in the conservation success (Berkes, 2004).

Economic improvement of the Callería Native Community has been achieved through the sustainable management of the forest. According to Bueno, Piber and Sologuren (2006), the CFM has created job opportunities and, thus, community members went from having an unstable and sporadic economic income associated with illegal activities that impaired forest sustainability, to receiving a stable and higher salary. Moreover, revenues generated from CFM have been used to buy food for the community and fulfill educational, health and community decision-making infrastructure needs (Nalvarte, 2015).

Both material and non-material needs have been covered by the CFM, the latter of which are as important as the former ones. For instance, a sense of belonging and ownership have been fulfilled. According to Ostrom and Cox (2010), without the sense of belonging and ownership, it is difficult for a community to use common pool resources in a sustainable way in the long term. Feeling resources as their own, users seek their sustainability. In contrast,

by not recognizing ownership, the conditions of common pool resources are reestablished, leading to their depletion. In the case of the Callería Native Community, Nalvarte (2015) describes that there is a generalized feeling that the forest is owned by all community members and that its sustainable management is contributing to their development. Furthermore, community members have expressed they are proud of being part of the community and of the achievements obtained with the CFM.

4. Local institutional arrangements

According to Mehmood and Parra (2013), “social innovation is about introducing new ideas and developing new social relations” (p. 64-65), and it shall be done with the aim of promoting community participation. To this end, local context is important and it should be the basis for incorporating conservation ideas that are grounded in the context of the community and its governance scheme to secure the community interest and participation (Waylen et al., 2010). However, communities are complex and not static, which means that they, and their context, constantly change over time (Berkes, 2004).

In the case of the Callería Native Community, the CFM was approved through a communal assembly, which represents the highest decision-making body in the community. Attendance to the communal assembly is mandatory for all members of the community who are older than 15 years old, since it is where agreements are made jointly by the entire community. Consequently, the Community Development Plan and the General Forest Management Plan, approved by the National Institute of Natural Resources (central government ruling institution at that time), was also prepared, discussed, and approved in a communal assembly (Bueno, Piber, & Sologuren, 2006; Gavaria & Sabogal, 2013). Approval of the aforementioned plan was a milestone for the Callería Native Community, as it was with its approval that the Peruvian Government granted the community legal recognition for the economic use of the forest, empowering the native community by providing them with greater legal security over their territory and resources (Nalvarte, 2015).

To implement the aforementioned plans, the Callería Native Community had to develop new organizational capacities, without altering their social organization or the role of communal authorities. Thus, they created the Forestry Productive Economic Organization, which leads forest management, and Communal Monitoring teams, in charge of ensuring compliance with what have been established as part of the CFM (Nalvarte, 2015; Sabogal et al., 2008). The creation of the Forestry Productive Economic Organization introduced

a new relevant social relationship with the aim of strengthening the native community's organization (Gavaria & Sabogal, 2013). It is comprised by 24 community members, which represent 20 families from the native community, who are in charge of implementing the CFM, while not represented families are in charge of other economic activities such as fishing and crafts. These changes were possible due to the positive economic results of the new business model, which consist in planned logging activities in defined areas and the direct sale of wood slats, which has resulted in up to 30-fold greater profits than those obtained with the previous model, and ensures resource sustainability (Gavaria & Sabogal, 2013; Nalvarte, 2015).

However, as mentioned before, communities are complex socio-ecological systems by nature, where the interests of community members are not always the same and neither are benefit perceptions. Moreover, according to Berkes (2004), community-based conservation projects tend to fail in the equitable distribution of power and economic benefits, which is even more difficult if decision-making falls on a reduced group, which often benefits the most. Inevitably, the introduction of new resource management institutions in community-based management initiatives is going to have social effects in the community, since new resource management standards are going to change the status quo (Miller, Caplow, & Leslie, 2012). The case of the Callería Native Community was not the exception.

Despite the support provided by the majority of community members in the communal assembly, there are communal members that do not agree with the CFM nor the established organization and want to continue with the previous extractivism model (Bueno, Piber, & Sologuren, 2006; Sabogal et al., 2008). Moreover, the exclusive use of the forest managed by the Forestry Productive Economic Organization has been generating conflicts within the community, as only 20 of the 71 families that are part of the community are represented and, thus, most of the community members do not benefit directly from the access to timber resources (Gavaria & Sabogal, 2013). Furthermore, some of the community members perceive that the CFM could lead to a radical change in their way of life and how work is organized in the native community with an impact in their cultural identity (Nalvarte, 2015).

5. Conclusion

Overall, the CFM have contributed to improve the quality of life of the Callería Native Community, generating new incomes and job opportunities and strengthening internal integration, reinforcing its identity as a community with long-term objectives towards sustainable forest management (Bueno, Piber, & Sologuren, 2006). Furthermore, the CFM has been not only a development opportunity, but it also has provided the community greater legal security over their territory and resources. Moreover, the CFM has contributed to banish the belief that communities lack the capacity to sustainably manage forests (Nalvarte, 2015) and Callería, as a pioneer, is an excellent example of it.

According to Gavarria & Sabogal (2013), one of the keys to success was that the CFM was not imposed to the community. In contrast, it was the result of an informed communal decision-making process. Moreover, direct dialogue with the members of the community in Community Assemblies contributed to greater transparency, enhancing their participation. However, to maintain the community buy-in and consolidate CFM, it is important to work towards an equitable distribution of benefits among all community members. Nevertheless, it is important not to consider community-based conservation as a blueprint solution against deforestation in the Amazonia, as it is always context-dependent (Ostrom & Cox, 2010), especially when the model is to be replicated with other native or indigenous communities, since each of them is different, both in the way they are internally organized, as well as their vision of their territory.

Taking the abovementioned into consideration, community-based conservation strategies as the CFM could be framed to a great extent under a social innovative approach. The case study has evidenced that CFM has been beneficial to the Callería Native Community, helping them to fulfill material and non-material needs. Moreover, new relationships and organization structures have been established in order to implement the CFM plan. Furthermore, the native community has been empowered, as now they are legally recognized by the government, and have legal security over its territory and resources. However, not all community-based conservation strategies are the same, as they vary from community to community and depend on their local context. Despite this, integrating a social innovation framework should be part of the design of community-based conservation strategies, considering it strongly influences the sustainable development of socio-ecological systems.

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