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Effects of COVID-19 on Community-Based Forest Management (CBFM) in selected regions of the Philippines

Juan M. Pulhin^{1,2}, Mark Anthony M. Ramirez^{3,2}, Josephine E. Garcia^{1,2}, Millicent Joyce Q. Pangilinan², Mary Beatrice S. Evaristo², Ma. Louiella Rose O. Catudio², Angelica T. Magpantay², Sheerah Louise Tasico² and Florencia B. Pulhin⁴

¹Department of Social Forestry and Forest Governance, College of Forestry and Natural Resources, University of the Philippines Los Baños, Laguna, Philippines

²Interdisciplinary Studies Center for Integrated Natural Resources and Environmental Management, University of the Philippines Los Baños, Laguna, Philippines

³Resources, Environment and Economics Center for Studies, Inc., Quezon City, Philippines – mark.ramirez@reecs.co

⁴Forestry Development Center, College of Forestry and Natural Resources, University of the Philippines Los Baños, Laguna, Philippines

Abstract

Everyone, regardless of socio-economic status and location, has been affected at varying degrees by the COVID-19 pandemic. However, those living in the uplands have borne the brunt of COVID-19, because lesser resources are at their disposal compared to their lowland counterparts. Moreover, deforestation, landscape fragmentation, habitat destruction, and illegal wildlife trade are being blamed at them as the reasons behind the pathogen transmission. With an estimated area of 1.6 million hectares of forest under the management of people's organizations (POs) through the Community-Based Forest Management (CBFM) Program of the Philippine Government, the importance of these communities cannot be overly emphasized in effecting sustainable forest management to prevent future disease outbreaks. This study assesses the impacts of COVID-19 on forest management activities and livelihood of upland communities in 15 of the 18 regions of the country implementing CBFM Program through online focus group discussions (FGDs) with the officers and staff of the Department of Environment and Natural Resources (DENR) at the regional, provincial, and local levels. Initial results indicate that lockdowns have adversely affected the production activities of the POs, which consequently resulted in a decrease in income. In addition, an increase in illegal activities such as timber poaching, charcoal making, and swidden farming have been observed in some areas as forest protection activities have been put on hold. Enterprising POs, however, have ventured into selling their cash crops, ornamental plants, and other products online for income generation, while others focused their time on tending their agroforestry farms. The findings of this study can be used as bases for targeted interventions (i.e., employment in forest restoration and monitoring, strengthening alternative livelihoods) of the government to avert a further decline in forest condition, even beyond the COVID-19 pandemic.

Keywords: COVID-19, community-based forest management, sustainable forest management

Introduction, scope and main objectives

The associated risks and economic shocks of the COVID-19 pandemic severely affected everyone. However, upland communities, considered the most marginalized sector of the society, experience the double burden of looking after their welfare and the tending of the forests under their management during this difficult time. With an estimated 1.6 billion people worldwide making up these communities, their roles are critical in protecting and conserving the remaining forest resources for current and future generations (SIANI 2021). In the Philippines, these forest-dependent communities are represented by people's organizations (POs)

managing around 1.6 million hectares under the Community-Based Forest Management (CBFM) Program of the government, corresponding to 11% of the total area of forestlands in the country (Pulhin et al. 2021).

How to effectively contain the rapid transmission of the virus presented a very challenging response from the government at the onset of the pandemic. The decision was to impose a total lockdown, military-style, at the national and local levels, where social and economic activities came to a sudden halt causing an irreparable crisis to individuals and communities (Lindsey et al., 2020). Forest activities also stopped, including ecotourism, biodiversity conservation, agroforestry, agriculture, forest production, forest protection, forest rehabilitation, livelihood activities, and research and development that severely undermined previous efforts to increase forest cover, attain food security, achieve sustainable development goals and where the extent of damage has yet to be established at this time. Even forest industries suffered; some have closed their operation, temporarily or permanently, which resulted in economic losses and the laying off of workers.

In order to have a clear understanding of the problems and challenges faced by the upland communities during the pandemic and to craft effective interventions to assist them, this paper assesses the impacts of COVID-19 on forest management activities and livelihood of CBFM POs in fifteen of the eighteen regions of the country implementing CBFM Program. The findings of this study can be used as bases for targeted interventions (i.e., employment in forest restoration and monitoring, strengthening alternative livelihoods) of the government to avert a further decline in forest condition, even beyond the COVID-19 pandemic.

Methodology/approach

The Philippines is one of the biodiversity hotspots in the world with at least 700 threatened species. It has 7.2 million hectares of forest representing 24% of the total land area of the country (CBD, 2021) that provide various ecosystem services and economic benefits to various stakeholders. It is home and source of livelihood to more than 24 million people, both indigenous peoples and migrants. With the sheer importance of its forest, the government initiated in 1995 the Community-Based Forest Management (CBFM) as its national strategy for sustainable forest management, focusing on the important contribution of upland communities in the success of the initiative through the awarding of security tenure. As of 2021, there are 1,930 tenure agreements issued to CBFM POs spanning 1,696,872 hectares all over the country (Pulhin, et al., 2021; see Figure 1).

With the increasing number of COVID cases when the study was initiated in 2020, we employed a mixed qualitative research design to understand and analyze the impacts of COVID-19 to the CBFM POs through focus group discussions (FGDs) with the regional and provincial officers and staff of the Department of Environment and Natural Resources (DENR), the government agency in charge of the CBFM implementation, as our respondents. These are the persons who are constantly in contact with CBFM POs on the ground, providing technical assistance as needed. One month prior to the conduct of the FGDs, questionnaires were distributed to respondents to ensure that the CBFM POs were properly consulted, and their insights and perspectives adequately considered in the responses.

As the pandemic limited our mobility, the FGDs were scheduled online using Zoom as the communication platform. A total of 15 online FGDs, with 386 DENR participants were conducted between September 2, 2020 to November 25, 2020. Each FGD ran from 3-4 hours and documented for content analysis. Table 1 shows the regional breakdown of respondents according to gender. The results of the study were then presented and validated through regional consultation meetings with CBFM PO leaders.

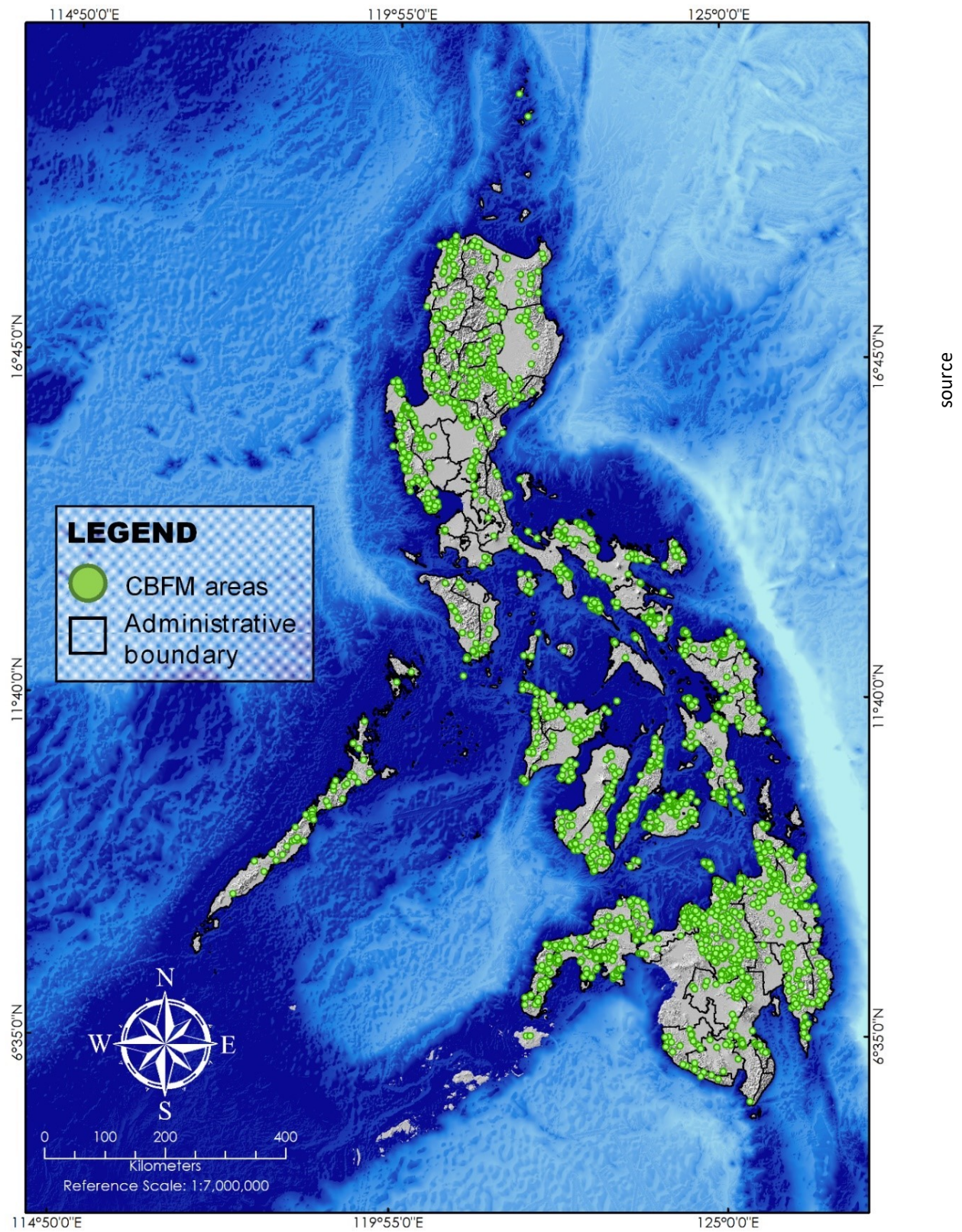


Fig. 1: Distribution of CBFMA sites in the Philippines (Pulhin et al. 2021)

Table 1: Distribution, number and gender of FGD participants

RESPONDENTS/ ATTENDEES OF ONLINE FGDs			
REGION	FEMALE	MALE	TOTAL
CAR	16	16	32
1	10	12	22
2	6	20	26
3	11	7	18
4A	6	7	13
4B	13	6	19
5	11	8	19
6	25	20	45
7	7	9	16
8	13	17	30
9	13	15	28
10	15	19	34
11	9	5	14
12	23	17	40
13	12	18	30

Results

Our results show that all fronts of forest management, livelihood, and income of CBFM POs have been impacted negatively due to the numerous lockdowns imposed by the government. Figure 2 summarizes the responses. The lockdowns were uniformly in effect nationwide, even in rural areas with low number of COVID cases where CBFM site belonged. These were presented in more details in the following subsections.

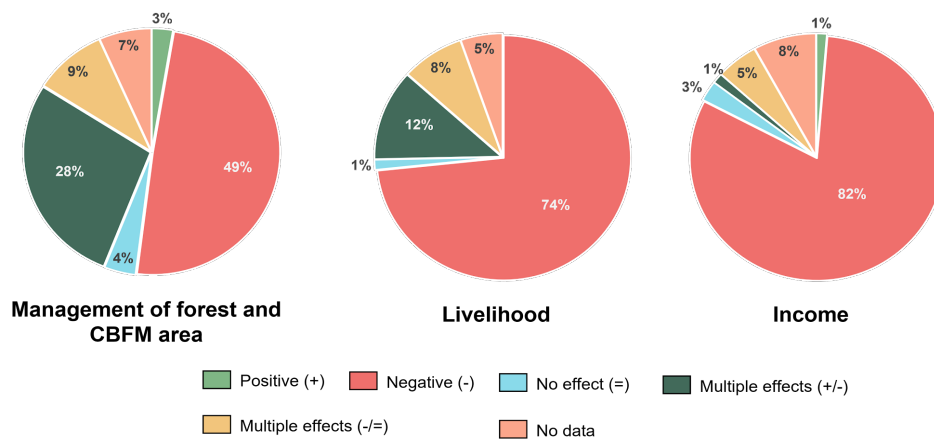


Fig. 2: COVID-19 Impact on forest management, livelihood and income of CBFM POs in the Philippines

Forest Management Activities

Almost half (49%) of the respondents attested that the lockdowns and mobility restrictions halted the forest rehabilitation and production activities of the CBFM POs. These include the suspension of implementing the National Greening Program (NGP) of the DENR, which provides funds for seedling production, agroforestry and reforestation projects in CBFM sites, and employment opportunities to PO members. Since there was an absence of forest patrols and monitoring activities, there were increased cases of illegal activities such as timber and wildlife poaching, theft of cash crops, and illegal harvesting of non-timber forest products (NTFPs). Incidence and risk of forest or grass fires have also surged due to kaingin (swidden farming) and charcoal making. Implementation of annual work plans and targets, including training and capacity building, has also been suspended due to limited transportation and a ban on face-to-face meetings. In Mindanao, there was high mortality in one of the POs reforestation projects due to the absence of maintenance activities, especially during prolonged drought periods. There was also a situation in the Visayas, where influx of people in the upland was recorded, especially of persons or families from urban areas.

The pandemic presents positive outcomes for some (28%), particularly those living near or within the CBFM sites. They said that the lockdown provided them an opportunity to tend to their agroforestry farms and time to improve their crops. Some have also observed that due to a lack of anthropogenic activities, the forests within their area of jurisdiction could regenerate quickly.

Livelihood

The disruption brought about by the COVID 19 virus is too evident when dealing with its impacts on livelihood. Around 79% of the responses cited the adverse results of community quarantines and mobility restrictions on how they earn a living. Since no transportation was allowed, upland farmers and CBFM POs could not market their agricultural crops and other products. Loyal buyers or traders could not also go to their places of transaction due to checkpoints and the corresponding penalties imposed by the government for those found to violate the quarantine restrictions, leading to a loss in sales and perished products. This affected the supply of agroforestry and high-value crops in the market sourced from the individual and communal farms in CBFM areas; with high demand and less supply comes the increase in prices of these products in the market.

Some CBFM POs and upland communities resorted to barter trade to prevent food crises as a coping mechanism. Even those who previously worked in seasonal jobs as carpenters, fishers, and agricultural laborers lost their job opportunities as well. People involved in livestock production also suffered due to a lack of supply of feeds in the market. For a short-term solution, people opted to engage in backyard gardening for their food needs.

At the PO level, those who were scheduled to harvest their planted trees and NTFPs based on their approved work plan could not do so since government transactions to secure permits and other requirements were also suspended. PO members who worked in community enterprises eventually lost their jobs as the financial capacities of the CBFM PO were likewise diminished as the pandemic drags on. While the livelihood situation is considered grim, some POs took the opportunity to shift to online selling, especially those near urban areas. Several of them also saw the rising demand for ornamental plants and engaged in this venture. These represent the 29% positive response we received in the FGDs.

Income

Eighty-two percent (82%) of the responses stated that the most worrisome result of the pandemic is the significant decrease or loss of income of the CBFM POs and their members. The effect of the pandemic on income followed the same trend on livelihood. Not surprisingly, this is a direct effect of loss of livelihood and employment due to restricted movement. The primary strategy of the government to contain the pandemic is to avoid person-to-person contact. While the pandemic's negative outcome is generally true across different

regions, there was a case of CBFM PO in Northern Luzon, known for its high-value vegetable crops, that earned additional profit from their products because of the high demand.

Discussion

Our study highlights the adverse impacts of the pandemic and the consequent movement restriction to control the spread of the virus on the welfare of CBFM POs in the Philippines. These impacts were directly linked with the lockdowns even in areas that have low COVID-19 cases, such as the CBFM sites. Other impacts such as loss of employment and livelihood were the results of the interplay of policies at the national level and the centralized decision-making during the pandemic. The Philippine case is similar with other countries such as Thailand, Nepal, India and Cameroon that faced numerous challenges as upland communities and people's organizations attempt to navigate the future of forest management in their respective areas (Laudari et al. 2021; Piabuo et al. 2021; Saxena et al. 2021; Giri 2021).

COVID-19 severely affected the lives of CBFM POs and their members due to the stoppage of forest production activities, reduced revenue for community-based enterprises, and increased unemployment resulting in loss of income and livelihoods whose cumulative impact can be felt by people living in the upland years into the future. This has increased the number of people below the poverty line and has resulted in reverse migration from urban to rural areas, increasing the pressure on natural resources as a source of sustenance and raw materials. Cases of illegal activities and forest fires have been observed during the pandemic as regular forest patrols usually conducted by members of CBFM POs have stopped. Illegal activities including timber poaching, illegal harvesting of NTFPs, wildlife hunting, and charcoal making increased as people look at the forests as sources of income. Income from agroforestry and agricultural products from the CBFM areas has also been negatively affected as public transportation was practically absent during the lockdowns. Some of the perishable products were left to rot, especially at the onset of the pandemic that already represents economic losses for the CBFM POs and its members. Outside the CBFM areas, prices of these goods have increased, leading to an additional burden on families.

The pandemic also saw how CBFM POs have become resilient in the face of severe challenges. In the middle of mobility restrictions, some upland communities have shifted their attention to securing their food requirements by developing their home gardens and agroforestry farms, improving their livestock production, and going into barter trade to ensure that lives move on amidst the pandemic. The forests, in this case, act as a safety net that helps the people cope during shocks (RECOFTC 2020). While regular income-generating activities are not possible, some CBFM POs have ventured into online selling, using social media as their marketing platform and responding to the market's current needs, such as the increased demand for ornamental plants. Even if the income from these emerging opportunities is insufficient, these cases show that it can provide the needed cash flow during lean periods.

Although this study provides a general picture of the situation of CBFM POs in the Philippines, there is still a compelling need to look deeper into the effects of the pandemic on forest health in terms of land use land cover change (LULC) and the resultant economic losses it brought to forest development. By looking at the impact of the pandemic holistically, it can inform decision-makers and the CBFM POs of the right choices to make if this current pandemic continues in the future or when the next pandemic arrives.

Conclusions/ wider implications of findings

This paper found that the effects of the COVID-19 pandemic in the CBFM sector in the Philippines are primarily adverse, from the very aspect of forest management to the livelihood and income of CBFM POs. However, to some extent, these POs have already initiated measures to cope with the pandemic's adverse impacts that show that they are bouncing back from the challenges of the pandemic. The forest provides them the basic

safety nets that enable them to adjust to the situation, improve home gardens for food security, and use available resources for small livelihoods.

Sustainable forest management also offers opportunities of building back better using the concept of green recovery (Saxena et al. 2021). The key to preventing future zoonotic pandemics is to conserve an adequate area of forest cover to keep viruses at bay by investing in sufficient technical and financial resources in upland development to close the gaps of forest fragments. A recent study suggests that the lower number of COVID cases is linked to green spaces (Jiang et al. 2021), making it imperative for governments to invest in forest regeneration in partnership with upland communities. This must be included in any forest management plans that reward good forest practices of CBFM POs as they become the frontliners against future pandemics and other health shocks.

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