

RESEARCH NOTE

Experiences of migrant Aeta communities with the National Greening Program implementation: The case of Sitio Ditao, Cadaclan, Pantabangan, Nueva Ecija, Philippines

Aureneil C. Natividad², Krisandra A. Mariano¹, Justine A. Marasigan¹, Felisa L. Malabayabas¹, Fritzzielyn Q. Palmiery¹, Antonio P. Contreras²

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

²School of Environmental Science and Management, University of the Philippines Los Baños, College, Laguna

ABSTRACT. The National Greening Program (NGP), a national reforestation initiative towards economic security and poverty reduction, has been involved in upland communities since 2011. In 2021, the program shifted to the Family Approach to Reforestation, where benefits are distributed directly to individual families instead of through People's Organizations (POs). With the change in implementation, this study analyzed the practice of equitable benefit-sharing after the shift to the NGP Family Approach through the case of the migrant *Aeta* community of Sitio Ditao, Barangay Cadaclan, Pantabangan, Nueva Ecija, Philippines. Using ethnographic methods such as in-depth interviews and participant observation to conduct immersion in and full enumeration of the community, this study established the ethnohistory of the Sitio Ditao *Aeta* community, understood the context of their involvement in the NGP, and determined the changes in their experiences with the NGP due to the changes in its implementation. The experiences of the Sitio Ditao *Aeta* community demonstrated that social equity was more evident under the family approach than in the former scheme since it allowed individuals to have more agency in decision-making, gave them more control over the benefits and opportunities, and maintained the work specificity of the gender ideology of the community. Despite these positive changes, the family approach also had negative repercussions in terms of income and leadership. As NGP sites became smaller, fewer people were involved when the payment for site development decreased. Mobilizing the organization's members became more difficult because the benefits went directly to the beneficiaries. Hence, the migrant community preferred the former strategy despite the social equity provision of the family approach. This preference has implications that should be considered for the future directions of the NGP and other forest conservation projects.

Keywords: family approach, forest conservation, indigenous peoples, migration, social equity

Article Information

Received 15 February 2024

Accepted 18 October 2024

Published online 12 December 2024

*Email: acnatividad@up.edu.ph

INTRODUCTION

Enshrined under Executive Order (EO) No. 26, also known as "Declaring an Interdepartmental Convergence Initiative for a National Greening Program," signed by President Benigno Aquino, III, on 24 February 2011, the National Greening Program (NGP) aims to increase forest cover by planting 1.5 B trees over 1.5 M ha of forestlands,

mangrove, and protected areas, ancestral domains, civil and military reservations, urban areas covered by the local government unit's or LGUs' greening plans, inactive and abandoned mine sites, and other suitable lands from 2011 to 2016 (Sec. 2, EO 26, s. 2011).

As the most extensive reforestation program in the country headed by the Department of Environment and Natural Resources (DENR), NGP targets self-sufficiency in wood and agroforestry products, economic security, environmental sustainability, and poverty reduction among upland and lowland poor households, indigenous peoples, and local people in the coastal and urban areas by providing livelihood opportunities with technical and financial assistance from the government and private sector.

To achieve its objectives, most of the NGP beneficiaries are people's organizations (POs) or members of the indigenous cultural communities. Further, the multi-sector approach used in this reforestation initiative, which includes POs, civil society, local and national government agencies, the academe, and the private sector, is essential for fostering community ownership and participation, allowing people to actively participate in the restoration process (DENR, 2011; Balangue, 2016; Luna, 2016).

Pursuant to a Memorandum of Agreement (MOA), the POs and IPs are held responsible for maintaining and protecting the established plantations with appropriate assistance from the government and the private sector (Sec. 3 (3.1.2), EO 26, s. 2011). They are paid for the site preparation, production, planting of seedlings, and site maintenance. They are also entitled to the proceeds from agroforestry plantations and prioritized in distributing the Conditional Cash Transfer Program (Sec. 3 (3.3), EO 26, s. 2011).

Aside from POs/IPs, the LGUs, other government entities, foundations, NGOs, civil society organizations, and private corporations may also enter into a three-year contract with the DENR to develop degraded or denuded areas. Moreover, DENR even collaborated with the Office of the Presidential Adviser on the Peace Process (OPAPP) to hire former rebels as forest guards through the Payapa at Masaganang Pamayanan (PAMANA) project under the NGP.

The NGP in the Philippines, guided by the Forest Landscape Restoration (FLR) principles, is a significant initiative with a two-fold objective: to

restore ecological functions and achieve positive social outcomes (Mansourian & Vallauri, 2014; McDonald *et al.*, 2016). The NGP recognizes the intricate interconnectedness of ecological and social elements, emphasizing the importance of integrating social dimensions into restoration efforts to promote a sustainable and inclusive approach to forest conservation (Mansourian & Vallauri, 2014; McDonald *et al.*, 2016).

According to DENR-Forest Management Bureau (FMB), 1,662,220 ha were planted with 1,369,762,802 seedlings of various species since the NGP's implementation in 2011. Dipterocarps, narra, premium and native species, and other fast-growing species were among the forest tree species planted in the uplands, while bamboo and mangrove species were identified as reforestation crops in riverbanks and coastal areas. As of 2022, the implementation of NGP generated 842,792 jobs, leading to the employment of 114,584 individuals. The NGP was later expanded through Executive Order No. 193, entitled "Expanding the Coverage of the National Greening Program" (ENGP) in 2015, extending the program's coverage from 2016 to 2028. The expansion of the NGP aims to continue the rehabilitation and reforestation of around 7.1 M ha of unproductive, denuded, and degraded forest lands. As of 2022, the DENR-FMB reported that under the ENGP, 519,455 ha has been planted with 460,104,409 seedlings.

From 2011 until 2020, NGP sites were allocated to POs. In May 2020, DENR-FMB released Technical Bulletin No. 30, "Implementing the Family Approach as a Strategy in the National Greening Program". It specified that family beneficiaries must be classified as "poor, low-income, low-middle income class or middle-income class" based on the data published by the National Economic Development Authority (NEDA). Aside from that, it was also stated that at least one family member must be a resident of the municipality where the area to be planted is located. Lastly, they should be physically able to perform the tasks and responsibilities of developing an NGP site (DENR, 2021).

The Ditao Indigenous Peoples Association is one of the POs that participated in the NGP during the PO approach and continued to participate after the NGP's shift in implementation to the Family Approach. It comprises members from a migrant *Aeta* community residing in Sitio Ditao, Barangay Cadaclan, Nueva Ecija. The community consists of 17 households, all of whom have been direct and indirect NGP beneficiaries.

The term "*Aeta*," which includes ethnonyms such as *Agta*, *Alta*, *Arta*, and *Atta*, encompasses the diverse nomadic indigenous groups inhabiting the mountainous areas of Luzon, with smaller populations in the Visayas and Mindanao (Barbosa, 1985; Serrat, 2021). Recognizable by their dark skin, curly hair, and petite stature, the *Agta* were well-known to practice hunting-gathering as a mode of subsistence partially, though cultural diffusion from non-*Agta* peoples has influenced them to also engage in agricultural subsistence methods (Griffin & Estioko-Griffin, 2021). Similar to many other hunter-gatherer societies, they uphold an egalitarian social structure without inherent positions of authority (Boehm, 2001), with any chiefs in some camps being appointed by external organizations such as the National Commission on Indigenous Peoples (NCIP). While the *Aeta* are also known for engaging in a nomadic lifestyle, most *Aeta* populations resided in the provinces and areas surrounding Mt. Pinatubo before its 1991 eruption. Some of the *Aetas* migrated to various municipalities of Nueva Ecija, including, but not limited to, the municipalities of Rizal and Pantabangan.

Farming is the main source of livelihood for some *Aeta* communities; however, they may also venture into enterprise combination, production, and marketing processes, which are largely family-owned (Espiritu, 2017). They are also known to be highly adaptive to technology and open to changes, especially when it comes to farming practices (Zabala, 2018). Some also practice swidden agriculture, but most still need land to cultivate. The *Aetas* will be unable to grow and harvest crops to sell on the market and make money to purchase food if they do not have land. Due to these, some were forced to travel to the lowlands and even

Metro Manila to beg for money to survive. The *Aetas'* survival ability is now determined by their financial situation (Acaba, 2008).

The ultimate value orientation of social forestry is social equity (Rebugio, 2015), but this does not always manifest in private and government-led programs. Initially, the social forestry goals were to promote justice, empowerment, and the devolution of rights to local communities so they could continue forest stewardship and governance practices while also providing a foundation for livelihoods and growth. On the other hand, involved private sectors benefit and exercise power mostly by profiting from the economic exploitation of forests and land, but are absent in public discourses within the community (Wong *et al.*, 2020). The lack of attention to social equity is also reflected in other forestry programs in general. While conservation strategies have sometimes achieved environmental objectives at the cost of equity considerations, the evolving conservation context and a growing body of evidence increasingly indicate that equity considerations should be incorporated into conservation planning and implementation. This is reflected by some projects concerning payment for ecosystem services (PES) schemes (Pascual *et al.*, 2014). The absence of explicit benefit-sharing arrangements and rent-capture by elites, unstable ownership, and restricted use rights of forest resources were established as the key constraints to distributive equity (Kenfack Essougong *et al.*, 2019).

On a large scale, government-initiated programs usually lack social equity provisions. A study conducted by Svara *et al.* (2015) found that most cities and counties in the United States are making limited efforts related to equity. There is parallelism when it comes to the case of the Philippines. Its Conditional Cash Transfer program and the Tax Reform for Acceleration and Inclusion law were programs aimed at achieving social equity. Research indicates that these initiatives have not yet had a major influence on long-term wealth redistribution in the framework of social fairness. As a result, the researchers argued that social equity in the Philippines is still an unattainable aim while being an ongoing

effort (Brillantes *et al.*, 2019). Project implementers focus on poverty alleviation and tenure security when dealing with IPs. The reason for this is that the idea of social equity gained traction in the Philippines due to the high rate of poverty, which is exemplified by the numerous marginalized and disadvantaged groups that include the impoverished in both urban and rural areas, as well as farmers, migrants, indigenous people, and rural and urban folk (Brillantes *et al.*, 2019).

In the case of NGP implementation, the social aspect is often left behind. Indicators of success always revolve around seedlings' survival rate and payments completed, to name a few. It is imperative to analyze if the new approach encourages social equity among its beneficiaries since it focuses on marginalized families. More importantly, involved IPs are more predisposed to injustices not only in benefit-sharing but also in terms of labor and security of tenure.

With the changes in NGP implementation, were there any adjustments to the social equity of involved communities? This study demonstrates a change through the lens of the Sitio Ditao *Aeta* community's lived experiences. It also analyzes the practice of equitable benefit-sharing through the case of the migrant *Aeta* community of Sitio Ditao by (1) establishing the ethnohistory of the Sitio Ditao *Aeta* community, (2) understanding the context of their involvement in the NGP, and (3) determining the changes in their experiences with the NGP due to the changes in its implementation.

METHODOLOGY

This study was conducted as part of the Gender Impact Assessment of Forest Conservation Projects among IPs in Luzon funded by DOST-PCAARRD from February to October 2023 in Sitio Ditao, Barangay Cadaclan, Pantabangan, province of Nueva Ecija (**Figure 1**). Seventeen households of migrant *Aeta* were identified on the site and allowed to participate through a resolution. According to the latest Barangay census, 75 individuals (40 women and 35 men) make up Sitio Ditao, also

locally referred to as "*Aeta Village*" or "*Sitio Aeta*." Qualitative ethnographic and numerical secondary data was obtained from the Ditao *Aeta* community, their PO—the Ditao Indigenous Peoples Association, and DENR. Ethnographic data was gathered using in-depth interviews, participant observations, and oral history interviews to describe the lived experiences of the *Aeta* who migrated to Ditao and establish their ethnohistory. Secondary data was gathered from the records of NGP implementation in the barangay (*e.g.*, payments completed, total contracted area, commodity, and species from the DENR) to numerically demonstrate changes in the benefits received by NGP participants.

All 17 households were involved in the study through representative household heads for total enumeration. To account for gender bias, the male and female household heads were interviewed together and then interviewed separately to reduce their influence on each other's answers. Relevant non-*Aeta* members of the Ditao Indigenous Farmers' Association were also interviewed to glean additional insights about the implementation of NGP. These included the association's president, his mother, and the non-*Aeta* residents of Sitio Ditao.

The in-depth interviews with the 17 informants ranged from 45 minutes to one hour. Open-ended questions about their daily schedule and activities, seasonal schedule and activities, daily experiences, social and environmental dynamics with their place and the people of Barangay Cadaclan, knowledge of the NGP, involvement in the NGP, activities performed about the NGP, and other economic and subsistence activities were asked. In addition, in-depth interviews are a qualitative ethnographic method often used to obtain a holistic understanding of the research questions by allowing the participants to discuss their answers at length and through a larger scope. The in-depth interviews were recorded on a digital phone and then transcribed.

Oral history interviews allowed the informants to narrate the events, experiences, and memories of migration and settlement to Sitio Ditao and



records, literature, and other relevant documents. Given the involvement of indigenous human participants, free, prior, and informed consent was obtained from the migrant *Aetas* residing in Sitio Ditao under the supervision of the NCIP through a Field Based Investigation (FBI). On 10 October 2023, a meeting was conducted with NCIP Nueva Ecija Provincial Office members, field staff from DENR CENRO Muñoz, and the representative of the migrant *Aetas* in Cadaclan. Henceforth, the community did not fall within any ancestral domain, thus not requiring Certification Precondition (CP) as a prerequisite. While a CP is not required, voluntary participation with informed consent was given utmost consideration.

Potential risks to participants, particularly the *Aeta* community, were thoroughly assessed, and measures were implemented to minimize harm or discomfort. Recognizing the vulnerability of participants, the informed consent process was made to be culturally appropriate and sensitive to customs and traditions. Participants

received complete information about the study, including objectives, methods, potential risks, advantages, and the option to discontinue participation at any time. All consent forms and instruments were translated into Filipino to address language issues, and explanations were provided. No force or pressure was applied, and participants were encouraged to ask questions and take their time deciding to participate.

RESULTS AND DISCUSSION

Ethnohistory of migrant Aetas in Cadaclan, Pantabangan

The first site visit was accompanied by Ditao Indigenous Farmers' Association Chairman Johnny Dela Cruz, "Kuya Johnny" to the Agta.

"Buti nalang una naming nakita si Kuya Johnny bumaba ng van, kundi tumakbo na kami! (It's a good thing we saw Kuya Johnny come out of the van first, else we would have all run away!)," one of the Agta members we first met remarked.

The [historical] exploitation of the Agta, whether due to unfair labor or land-grabbing due to their migratory nature, was still a source of distrust towards newcomers, which was only alleviated by Chairman Johnny's endorsement and presence as our cultural gatekeeper. It was, however, Chairman Johnny's father, the late and former Chairman Juanito, who played a direct role in the placemaking of Agta of Sitio Ditao.

Before the Pantabangan River Basin flooding in the 1970s after the construction of the Pantabangan Dam, Sitio Ditao was an uninhabited forested area. In 1974, the late Chairman Juanito acquired rights to manage and use the area for farming and other forestry activities.

Following the eruption of Mount Pinatubo, the families and ancestors of the Ditao Agta migrated from its forests to other forested areas in Zambales and Pampanga.

"Hindi po namin naabutan yung ninuno namin. Mula daw po nung pumutok yung Mt.

Pinatubo namatay po lahat. 'Yung ibang kulot naman dito sa Labrador niyaya ko po yung mga nanay at tatay dun sa Nueva Ecija 'Magtanim tayo ng Palay' sa bundok" (We never got to meet our ancestors. They say that when Mt. Pinatubo erupted, they all died. As for the other Aeta people here in Labrador, I invited the mothers and fathers there in Nueva Ecija, saying, 'let us plant rice in the mountains').

The Aeta group residing in Ditao first met the late Chairman in 2002, while some were working as laborers in Villa Labrador, Nueva Ecija, *"Dito din po sa Labrador, doon po kami dati nakatira sa bundok, kinuha po kami ni Lolo Juanito pinuntahan po kami."* There, they met Chairman Juanito who encouraged them to migrate to Ditao. Many chose to follow Chairman Juanito to Ditao because of conflict with non-Aeta or *unat*.

Interviewer: *Noong niyaya po kayo sa Labrador, bukod sa pagtanim ng puno? Ano pa ang naging pang-aya sainyo?*

Aeta informant: *Para po dito sa lupang naidonate ni Lolo Juanito hanggang nabubuhay pa kami, tapos yung mga bata mayroon rin po titirahan hindi na po pinapalayas; sa kilometer po kasi pinapalayas.*

Interviewer: *Ano po ang ginagawa nila?*

Aeta Informant: *Kung бага gagawa sila ng paraan para paalisin ka.*

Interviewer: *Sa paanong paraan?*

Aeta informant: *Yung pag nagtanim ka sa gilid ng gulay ipapakain nila sa kambing, tapos pag umalma po kami sasabihin nila "umalis kayo para hindi napeperwisyo ng kambing yung mga tanim niyo"*

The Lagmans were the first family to arrive in 2003. *"Bali dumating sila, 2002, kaya lang isang pamilya lang yun anim na piraso,"* Chairman Johnny recounted. He is the third son of the late Chairman Juanito. He became chairman after his father's passing due to a vehicular accident in 2019. Before becoming the chairman, he assisted his father with the association's projects and the Aeta community.

Table 1. Timeline of events of *Aeta* migration and settlement in Sitio Ditao.

Year	Event
1974	The late Chairman Juanito Dela Cruz (JLDC) moved from Pinalubog to Cadaclan, following the completion of the Pantabangan Dam. He then acquired legal rights over the area in Sitio Ditao where the <i>Aeta</i> Village stands today. He was given rights to develop the land after being displaced from Pinalubog.
1991	The eruption of Mount Pinatubo that triggered mass migration of several <i>Aeta</i> bands to other areas of Luzon.
1990s*	The approximate time of the <i>Agtas'</i> migration to Villa Labrador after residing elsewhere in Rizal, Nueva Ecija. <i>"Kinuha sila nung Mayor diyan [Kilometer 8, Villa Labrador] para madagdagan ang boto nila sa Politika... Isang sasakyang malaki, may bayad at na rehistro. Mga 200 mahigit,"</i> recounted Mr. Jhonny Dela Cruz, the current chairpersson of the Ditao Indigenous Farmers' Association.
2002	JLDC met the <i>Aeta</i> while he was working in the Pantabangan River Basin (PRB) plantation. JLDC met the <i>Aeta</i> while he was working in the Pantabangan River Basin (PRB) plantation. <i>"Sila napakahirap paamuhin... Inabot ng pitong taon, dahil susunduin pa ng tatay ko gamit ang sasakyan at tinayuan sila ng kubo."</i>
2003	The arrival of the first <i>Aeta</i> family, the Lagmans, at JLDC's claimed land in Ditao. This marks the beginning of the slow and fluid settlement of the <i>Agtas</i> into Ditao after their eventual departure from Kilometer 8 due to land insecurity caused by <i>unat</i> residents. <i>"... dito sa lupang naidonate ni Lolo Juanito hanggang nabubuhay pa kami, tapos yung mga bata, mayroon rin po titirahan hindi na po pinapalayas; sa Kilometer po kasi pinapalayas. Kung бага gagawa sila ng paraan para paalisin ka. 'Yung pag nagtanim ka sa gilid ng gulay ipapakain nila sa kambing, tapos pag umalma po kami sasabihin nila 'umalis kayo para hindi napeperwisyo ng kambing yung mga tanim niyo' "</i>
2004	JLDC established a People's Organization (P.O.) (the first iteration of the now-Ditao Indigenous Farmers' Association) called, "Damayang Kristyanong Magsasaka at Organikong Sistema" or "MAGSASAKA" for short. This P.O. had 12 (five female, seven male) <i>Aeta</i> members as associate members.
2007	The MAGSASAKA P.O. was renamed as the, "Ditao Integrated Green Forest Multi-purpose Cooperative" (Ditao Cooperative) when there were more <i>Aeta</i> members than <i>unat</i> members.
2011	JLDC signed a deed of donation for the land area occupied by the <i>Agtas</i> ; transferring the rights over the land to them at the request of the <i>Agtas</i> . The deed was also signed by his children/heirs to acknowledge the transfer of rights. <i>"Ang ginawa ni tatay 'dyan nung birthday niya inipon niya lahat ng lote at ginawan ng kontrata at dinonate sa mga nakatirik don, kaya pirmado yun."</i> JLDC also constructed houses made of galvanized iron and wood materials.
2012	The Ditao Cooperative joined the NGP. Their initial area in Barangay Cadaclan was 115 ha where they started planting Mango and Narra. Their initial component was Reforestation.
2014	The Ditao Cooperative was renamed as the Ditao Indigenous Farmers Association. Their area in Barangay Cadaclan decreased to 100 ha and their component shifted to fuelwood where they were planting Ipil-ipil.
2016	The Enhanced National Greening Program was signed into law, extending the period of the project.
2018	The Ditao Indigenous Farmers Association changed their name to Ditao Indigenous Farmers Association Incorporated.
2019	JLDC unfortunately passed due to a vehicular accident. The Chairman/Presidency of the Ditao Farmers Association was passed to his third child, Jhonny Dela Cruz, who had been assisting him with managing the association and their farmlands prior to his death. Several <i>Aeta</i> residents left Ditao after JLDC's passing; some in search of other work and others for private reasons (e.g., <i>"sinundo ng asawa"</i> , <i>"binalikan ang asawa sa Kilometer 8"</i> , etc.)
2021	The eNGP shifted its approach from the P.O. approach to the Family approach, changing nature of involvement of the <i>Agtas</i> with the Forest Conservation Project.

The Ditao Indigenous Farmers' Association is comprised mostly of *Aeta* and some non-*Aeta* farmers. It was created in 2004 under the name "MAGSASAKA People's Organization," then changed to "Ditao Indigenous Farmers Association" in 2018. Previously, most *Aeta* members were hired as laborers and involved in the association's projects.

Context of displacement

Many current *Aeta* residents of Ditao have been residing in Kilometer 8, Villa Labrador, Rizal, also referred to as "*Otso*", prior to their migration to Ditao. They transferred sometime in the 1990s by virtue of then Mayor Miguel Lopez. The main livelihood and subsistence consisted of hunting-gathering, occasional swidden farming, and as

agricultural and forestry laborers. “[*Ang kabuhayan namin ay*] *Nagtatanim ng palay*” (Rice farming is our livelihood). An elder Aeta informant narrated, “*Nakikitanim sa bukid, sasabayan yung nagpapatanim, at lulubog sa kaputikan*” (We work in the fields, joining those who are planting, and wading through the mud). The Aeta, however, did not feel socially secure. They shared several examples of harassment by Otso residents. “*Yung mga Igorot po, ayaw kami patirahin at palagi ginigipit ng mga tao doon kaya ang hirap*” (The Igorots do not want us to live there, and they always pressure us, which makes it difficult).

The economic situation of the Aeta was also unstable. “*Parehas lang din po [yung trabaho sa Villa Labrador at dito], pero mas madaling makahanap dito ng trabaho sa pang araw-araw. Kasi marami pong nagpapatanim...noon kasi may hindi nakakakain sa buong araw at namamatay na sa gutom*” (The work [in Villa Labrador and here] is the same, but it is easier to find daily work here [Sitio Ditao] because many people need help with planting. Before, there were Aetas who have nothing to eat and die from hunger). Another Aeta woman also remarked, in passing, that in Villa Labrador, they often only have sweet potatoes to eat while in Ditao, they at least have rice.

Involvement in forest conservation programs

The Forest Conservation Projects (FCPs) involving Aetas in Ditao (*i.e.*, development and management of the Pantabangan River Basin Plantation, planting trees for NGP) acted as indirect transmitters of socially favorable conditions that made Ditao an advantageous place for the Aeta to reside in semi-permanently. While the role of FCPs in Aeta's settlement in Ditao is not that of a central actor, it remains an indirect factor due to the initial employment opportunities for the first Aeta migrants. These opportunities were a gateway to stable employment, tenurial rights, and spatial security as they became the foundation of the relationship with Lolo Juanito. FCPs such as eNGP also provide some a continuous source of income. Issues concerning fair sharing of benefits may seem ephemeral among the Aetas, but communication with some elders revealed that they did have sentiments when it comes to wages. In 2012, male laborers received PHP 200–250, while female

laborers received PHP 150. The gender pay gap stemmed from the work specificity, as mentioned by the current chairman. “*Ang maganda kasi nung araw sustain ni tatay yung buhay nila ng isang buong taon, kasi araw-araw nagtatrabaho at araw-araw may pera, mura pa labor noon. Magkaiba ang rate ng babae sa lalaki. Pag lalaki, 200-250 tapos 150 sa babae*” (INSERT TRANSLATION). The salary mentioned was lower than the minimum wage for agricultural workers in Central Luzon for CY 2012, PHP 281 day⁻¹ (Villahermosa & Dizon, 2021).

NGP at a glance: The case of Ditao Indigenous Farmers Association, Inc.

It was in 2012 when Ditao Indigenous Farmers Association Inc., formerly known as Ditao Integrated Green Forest Multi-Purpose Cooperative, received its first NGP contract from DENR. The late Mr. Juanito Dela Cruz, DIFAI's PO chairman at that time, involved the migrant Aetas in aiding in developing the 115 ha, of which fruit and other indigenous trees were planted. From 2012 until 2014, the area contracted per year increased, but from 2015 until 2018, a consistent increase could be observed (Figure 2). The people's organization has little to no power over how large or small the contracted area will be. On the other hand, DENR staff conduct surveys, mapping, and planning (SMP), which determine the exact location and extent of new NGP sites. Because of the untimely demise of Mr. Dela Cruz in 2019, the implementation of NGP in Cadaclan was halted. This has affected the livelihood of many migrant Aetas who were partially dependent on the income they received from working as laborers.

When Mr. Dela Cruz's son, Mr. Johnny Dela Cruz, took over in 2021, they engaged again in NGP through the Family Approach. The migrant Aetas of Sitio Ditao were hired again as laborers, but this time, they are working for the family heads who were chosen to manage the NGP sites. All of the family heads are non-Aeta members of DIFAI. According to one key informant, Aeta members were not selected as family heads because they were not literate enough to transact with DENR regarding receiving payments and accomplishing some documentary requirements. “*Yung mga kulot kasi hindi marunong, halimbawa sa ATM. Kailangan*

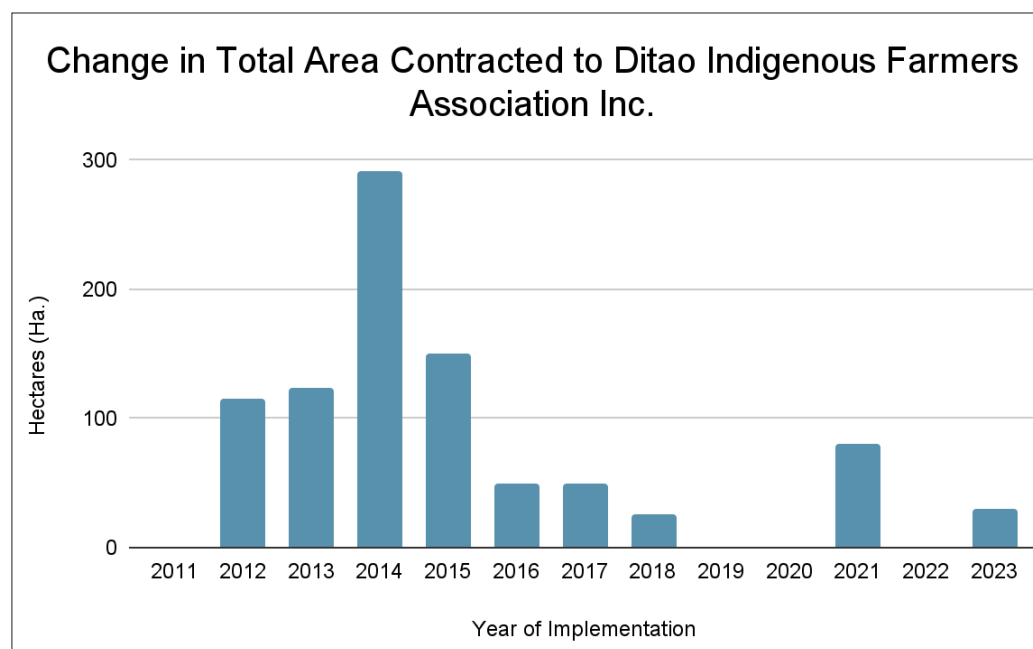


Figure 2. Change in total NGP area contracted to Ditao Indigenous Farmers Association, Inc. in Barangay Cadaclan, Pantabangan, Nueva Ecija, Philippines.

'yun pag kukunin na 'yung bayad" (The *Aetas* are not knowledgeable, for example in using an ATM. That is needed when receiving the payment).

For CY 2021 and 2023, the total areas contracted were 80 ha and 30 ha, respectively. These were among the smallest areas awarded in 12 years. A smaller area simply implies that fewer financial benefits will be received since payment for seedling production, plantation establishment, maintenance, and protection will be smaller. Hence, fewer laborers will be employed. For context, CY 2017–2019 can be used as an example. For a 50-ha NGP site planted with bamboo, the total contract cost was PHP 975,000. All expenses incurred for three years, including materials and labor, will be charged to the contract cost. It is also important to note that each contract's commodity (e.g., indigenous and bamboo) significantly affects the total contract cost. Indigenous species seedlings cost only PHP 12, while bamboo propagules were priced at PHP 35 each. These were used in 2014 and 2017, respectively. Despite the big difference in seedling production prices, the huge decline in total area had a domino effect on jobs generated. Although the *Aetas* are said to be prioritized, respondents claimed that the new approach has

drastically impacted the organization and the community.

Does the family approach promote social equity?

Since 2011, organized groups like POs and local government units have been tapped by DENR to implement the NGP. Whether these groups are knowledgeable about the said program, locals have been mobilized to achieve the specified targets per site. In a study conducted by Wiset *et al.* (2023), they found little local participation in the decision-making process regarding the planning and execution of NGP initiatives. The POs carrying out NGP projects engaged in reforestation by contractual agreements, but they were forced to implement strategies that did not consider local conditions and community preferences because they lacked the necessary devolution of power to influence decisions. After 10 years of relying on these organizations for forest restoration, DENR, the implementing agency of NGP, adopted the Family Approach in 2021.

As mentioned earlier, the beneficiaries of NGP's Family Approach must be categorized as "poor, low-income, low-middle income class or middle-

income class.” Although promoting social equity was not explicitly mentioned, DENR’s decision to prioritize less fortunate families participating in NGP addresses social issues like food security and poverty in the uplands. The PO-based strategy gave much power and control to the leaders of organizations. Since the PO is considered a single entity contracted with DENR, the management and distribution of financial benefits are centralized. Unfortunately, the organization’s members have limited access and control over these matters. In the case of migrant *Aetas* of Cadaclan, it was discovered that they are unaware of what NGP is. When asked about the program, they simply respond, “*Yun bang pa-project ni Kuya Johnny?*” (Is it brother Johnny’s project?). From their perspective, being employed as laborers helped them by having an alternative source of income.

Through the interviews, the researchers found that social equity was more evident under the family approach than in the former scheme. Regardless of status in the community, individuals now have more agency to decide and develop their land. This also entails that they have more control over the benefits and opportunities derived from the program. It is important to note that family heads for the sites under CY 2021 were all non-*Agta* or commonly coined by the locals as “*unat*.” In the case of DIFAI, some family heads opt to hire other workers, like the migrant *Aetas*, when the volume of work is too much for their family members. This means a portion of the payment received by the family head for developing the site will be allotted to pay the wages of hired laborers. Compared to the PO-based, where the chairman has full control of the activities and the financial management of NGP, the family heads can now transact directly with DENR for their financial and technical arrangements.

Gender bias when it comes to involvement in forest conservation activities was practically nonexistent, but work specificity was observed. Based on these NGP goals, the issue of gender or women empowerment was not mentioned. Regarding collecting gender-disaggregated data for NGP, the only available data focus on employed persons and job generation under the Community-Based

Employment Program (CBEP). Since 2011, up until the current implementation of NGP, gender impacts of the program have been scarce. On the other hand, the participation of women in NGP activities has been the focus of several literatures. The eNGP involved women in the establishment and upkeep of plantations and the running of nurseries. In 2018, women comprised about 30% of eNGP participants. In December 2018, 42,929 men and 19,346 women worked in various fields such as surveying, planning, planting seeds, site development, maintenance, and protection (BPfA+25 Philippine Progress Report, 2019). In the case of *Aeta* women in Cadaclan, they were also involved in almost all of the activities of NGP. For instance, women are tasked with weeding, harvesting, and threshing. While these are not exclusively women’s roles, these exhibit their involvement in the general planting process. In addition, bamboo skin removal and labor-intensive tasks such as weeding and planting as laborers are sometimes women’s activities when the need arises (*i.e.*, their husbands are preoccupied with more laborious activities).

The role of women in forest conservation was also pointed out in the case of the Kalanguya tribe in Capintalan, Nueva Ecija. In the study conducted by Gabriel *et al.* (2020), it was found that the NGP provides the women of Capintalan with alternative sources of income. The NGP is also gaining ground in the area. Seventy-five percent of the area has been reforested. In the case of Dumagat women, on the other hand, they follow customs meant to protect the environment. Intercropping is used in slash-and-burn areas to prevent soil erosion and restore fertility. The DENR- Forest Management Bureau (FMB) likewise highlighted the importance of women in forest conservation. According to For. Jolito Hermocilla, Site Management Officer of Forestland Management Project (FMP) in Seguin, Carranglan, Nueva Ecija, “[*we*] can see their (the members of the Samahan ng Kababaihang Makakalikasan ng Seguin, an all-women organization engaged under FMP in Carranglan,) *willingness and commitment*.”

They have been involved in natural resource conservation. They have acquired knowledge on

planting various plants and trees that could be harvested for their family consumption or livelihood. They even have gardens in their backyards. In another study conducted by Naganag (2014), he emphasized the critical roles that rural women play in managing sustainable ecosystems, especially in the protection and conservation of the environment and the expectations, roles, and challenges of women in fostering more ecologically and environmentally friendly indigenous communities that are supportive of indigenous peoples.

The role of women in forest conservation has been recognized not only locally but also internationally. In Bangladesh, women participate in all forest management activities. These include a village conservation forum, people's forum, community patrol, and co-management committee. Through their involvement, their social networks have grown, their chance to participate in alternative income-generating activities has been developed, and their awareness and comprehension of government norms and regulations regarding forest conservation have expanded (Begum *et al.*, 2022).

In India and Nepal, the study conducted by Agarwal (2009) revealed that greater improvements in forest conditions were observed in the groups with a high proportion of women in the decision-making body. Better forest regeneration and canopy growth, as well as improved forest protection, were attributed to the participation of women in forest conservation.

However, the family approach also had negative repercussions in terms of income and leadership. As NGP sites became smaller, fewer people were involved since the payment for site development also shrunk. Mobilizing the organization's members is now arduous since the benefits are directly transferred to the beneficiaries. The organization's leaders cannot fully exercise their function now more than ever. As one of the key informants said: "*Mas gusto ko yung P.O. basis kasi kaya mo kontrolin, hindi yung maghihintay ka pa na may magtrabaho.*" (I prefer the PO basis because you can control it, not like this new approach where you need to wait for laborers).

Despite the social equity provision of the new approach, migrant Aeta people and the members of DIFAI gravitate towards the former implementation strategy of NGP. They see it as more profitable and productive compared to the Family Approach. As mentioned earlier, the selected family heads are all non-Aeta DIFAI members. Hence, it entails that the migrant Aetas of Ditao merely benefit from labor, not the benefits from developing land. From an outsider's perspective, it can be inferred that these migrant *Aetas* are being used for the benefit of those who are in power. On the other hand, the *Aetas* themselves have called Cadaclan their home and a conducive place to earn a living.

CONCLUSION

The Family Approach of the National Greening Program attempts to address pressing socio-economic issues in the uplands by involving poor and less privileged families, including the migrant *Aetas* of Cadaclan. Although social equity is vital in improving the overall welfare of these indigenous peoples, the *Aetas* still prefer economic gain. The shift in the implementation of the NGP, where the P.O. basis allowed much more income and revenue to be accrued while the Family Approach has a significantly lower return, thus diminishing the surplus income that was redistributed to the Ditao *Aeta* to ease their economic capacity, will likely also affect the future resources and economic/subsistence stability of the Ditao *Aeta*. Fairness in benefit-sharing among the members of the DIFAI is still a question, although selected beneficiaries of NGP now have more access and control over their land. In conclusion, the Family Approach champions social equity among indigenous peoples, but the mechanism that the program uses still lacks emphasis on how it can empower and support the marginalized sector. Lastly, there is a greater need to educate indigenous peoples about their rights when involved in forest conservation initiatives.

ACKNOWLEDGMENTS. This study was supported by the Department of Science and Technology–Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD). The authors would also like to express their utmost gratitude to DENR CENRO Muñoz and NCIP Nueva Ecija Provincial Office.

LITERATURE CITED

- Acaba, J. P. (2008). *The Aetas' Relocation and their Struggle for Survival*. Retrieved from: <<https://core.ac.uk/download/pdf/147823408.pdf>>.
- Agarwal, B. (2009). Gender and forest conservation: The impact of women's participation in community forest governance. *Ecological Economics*, 68(11).
- Balangue, T. O. (2016). National greening program assessment project: Environmental component - process evaluation phase, PIDS Discussion Paper Series, No. 2016-11, Philippine Institute for Development Studies (PIDS), Quezon City.
- Barbosa, A. (1985). The ethnography of the *Agta* of Lamika, Penablanca, Cagayan. The *Agta* of Northeastern Luzon: Recent Studies, San Carlos Publications, University of San Carlos (16), 12.
- Begum, F., de Bruyn, L. L., Kristiansen, P., & Islam, M. A. (2022). Forest co-management in the Sundarban mangrove forest: Impacts of women's participation on their livelihoods and sustainable forest resource conservation. *Environmental Development*, 43.
- Boehm, C. (2001). *Hierarchy in the Forest: The Evolution of Egalitarian Behavior*. 2nd ed, Harvard University Press, Cambridge.
- BPfA+25 *Philippine Progress Report* (2019). Retrieved from: <<https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/CSW/64/National-reviews/Philippines.pdf>>.
- Brillantes, A., Raquiza, M. V., & Lorenzo, M. P. (2019). *Social Equity in the Philippines: A Continuing but Elusive Promise*. 10.1007/978-3-030-15919-1_11.
- DENR [Department of Environment and Natural Resources]. (2011) DENR Memorandum Circular 2011-01. Retrieved from: <<http://www.denr.gov.ph/>>.
- DENR [Department of Environment and Natural Resources] (2021). DENR Technical Bulletin No. 30: Implementing the Family Approach as a Strategy in the National Greening Program. Retrieved from https://forestry.denr.gov.ph/fmb_web/?page_id=2440
- eNGP [Enhanced National Greening Program]. (2019). Retrieved from: <<https://www.denr.gov.ph/index.php/priority-programs/national-greening-program>>.
- Espiritu, J. A. (2017). Livelihood Resources, Practices and Values of Aetas in Mid-Baytan – Implications to Education and Community Development. Retrieved from: <<https://knepublishing.com/index.php/Kne-Social/article/view/2412/5302>>.
- Executive Order No. 26. (2011). Declaring an Interdepartmental Convergence Initiative for a National Greening Program. (2011). Retrieved from: <<https://www.officialgazette.gov.ph/2011/02/24/executive-order-no-26-s-2011/>>.
- Executive Order No. 193 (2015). Expanding the Coverage of the National Greening Program. Retrieved from: <<https://www.officialgazette.gov.ph/2015/11/12/executive-order-no-193-s-2015/>>.
- Griffin, P. B. & Estioko-Griffin, A. (2021). The Centrality of Arrow Crafting and Hunting in the *Agta* Way-of-Life. Retrieved from: <https://thecordillareview.upb.edu.ph/wp-content/uploads/2021/03/5-TCR-IV-2_Griffin-and-Estioko-Griffin_The-Centrality-of-Arrow-Crafting-and-Hunting-in-the-Agta-Way-of-Life.pdf>.
- Gabriel, A., De Vera, M., Antonio, M. A. B., & Adam, E. (2020). Roles of indigenous women in forest conservation: A comparative analysis of two indigenous communities in the Philippines. Retrieved from: <<https://www.tandfonline.com/doi/full/10.1080/23311886.2020.1720564>>.
- DENR [Department of Environment and Natural Resources]. (n.d.). *How Empowering Women Cultivates Holistic, Stronger Forestland Management*. Retrieved from: <<https://forestry.denr.gov.ph/index.php/how-empowering-women-cultivates-holistic>>.
- Kenfack Essougong, U. P., Foundjem-Tita, D., & Minang, P. A. (2019). Addressing equity in community forestry: Lessons from 20 years of implementation in Cameroon. *Ecology and Society*, 24(1), 9. Retrieved from: <<https://www.ecologyandsociety.org/vol24/iss1/art9/>>.
- Luna, M. P. G. (2016). *Impact Assessment of the National Greening Program of the DENR: Scoping or Process Evaluation Phase - Institutional Component*. PIDS Discussion Paper Series, No. 2016-29, Philippine Institute for Development Studies (PIDS), Quezon City.
- Mansourian, S. & Vallauri, D. (2014) Restoring forest landscapes: important lessons learnt. *Environmental Management*, 53(2), 241–251. <https://doi.org/10.1007/s00267-013-0213-7>
- McDonald, T., Gann, G. D., Jonson, J., & Dixon,

- K. W. (2016) International standards for the practice of ecological restoration – including principles and key concepts. Society for Ecological Restoration, Washington, DC.
- Naganag, E. M. (2014). The role of indigenous women in forest conservation in upland Kalinga Province, Northern Philippines. *International Journal of Advanced Research in Management and Social Sciences*, 3, 75–89.
- Pascual, U., Phelps, J., Garmendia, E., Brown, K., Corbera, E., Martin, A., Gomez-Baggethun, E., & Muradian, R., (2014). Social equity matters in payments for ecosystem services. *BioScience*, 64(11), 1027–1036.
- Rebugio, L. L. (2015). *Social Forestry as a Resource System*. Retrieved from: <http://blogs.ubc.ca/apfnet02/files/2015/08/Mod-3-Topic-2_REBUGIO-1.pdf>.
- Serrat, O. (2021). Minority population analysis: The aeta of the Philippines. *Leading Solutions: Essays in Business Psychology*, 267–271.
- Svara, J., Watt, T., & Takai, K. (2015). Advancing social equity as an integral dimension of sustainability in local communities. *Cityscape*, 17(2), 139–166.
- Wiset, K., Gregorio, N., Fisher, R., Mangaoang, E. & Herbohn, J. (2023). Assessing the effectiveness of the engagement of local people in restoring degraded forest landscapes in Leyte and Biliran Provinces, the Philippines. *Environmental Science & Policy*, 148. Retrieved from: <<https://doi.org/10.1016/j.envsci.2023.07.005>>.
- Villahermosa, J. & Dizon, R. (2021). The effect of Philippine national wage variation: The top-down microsimulation model. *Journal of Asian Finance Economics and Business*, 155–163.
- Wong, G. Y., Moeliono, M., Bong, I. W., Pham, T. T., Sahide, M. A. K., Naito, D., & Brockhaus, M. (2020). Social forestry in Southeast Asia: Evolving interests, discourses and the many notions of equity. *Geoforum*, 117, 246–258.
- Zabala, B., Jr. (2018). The Migrated Indigenous People (AETAS). *International Journal of Humanities and Social Science*. 3. Retrieved from: <https://www.researchgate.net/publication/323336916_The_Migrated_Indigenous_People_AETAS>.