NO DATA, STORY

Indigenous Peoples in the Philippines

WORLD BANK GROUP
Social Sustainability & Inclusion

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THIS IS THE DATA, THESE ARE THE STORIES

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ABOUT THE REPORT

No Data, No Story: Indigenous Peoples in the Philippines was produced in response to the challenge of articulating meaningful and targeted poverty reduction strategies without reliable data on Indigenous Peoples (IPs). As such, the report is as much about the importance of data as it is about IPs themselves. It addresses the dearth of data in areas that matter to IP communities in the Philippines – population and demography, poverty and inequality, the status of Ancestral Domains (ADs), and the interactions between poverty, land, and conflict. What began as few simple questions – who are the IPs, what do we know about them, and what data do we have? – has resulted in the first World Bank assessment of the primary challenges confronting IPs in the Philippines and the core output of the IP Engagement Strategy 2021–2024 for the Philippines.

The World Bank's IP Engagement Strategy's main objective was to enhance the visibility of IPs in the Philippines and increase awareness of the need to address their development challenges and close the gaps in social inclusion. The strategy included four pillars: a) dialogue to proactively engage with IP leaders and government counterparts; b) partnerships with civil society organizations (CSOs), academia, and other development partners; c) analytics and knowledge sharing to produce empirical evidence on the challenges facing IPs and raise awareness across World Bank technical teams and government institutions; and d) policy and operations to use data and available information to inform policy recommendations and project design to address the needs of IPs and other ethnic minorities.

This report is part of a series of knowledge products prepared under the IP Engagement Strategy. The series also includes an *IP Data Inventory*, an *IP Political Economy Analysis*, an *IP Ancestral Domains Database and Portal Prototype*, and an *IP Household Survey*. The IP Ancestral Domains Database and Portal Prototype was developed in partnership with the National Commission on Indigenous Peoples (NCIP) and funded by the World Bank Government Technology Global Partnership Trust Fund (GovTech), while the IP Household Survey was funded by the World Bank Human Rights, Inclusion, and Empowerment Umbrella Trust Fund. This survey, completed in 2023, was the first of its kind in the Philippines. It was developed with the objective to gather important data about IP populations in previously identified priority areas and close some of the country's data and information gaps.

These activities were made possible through partnerships with several organizations that provided support and data, including NCIP, the National Commission on Muslim Filipinos (NCMF), the Philippine Statistics Authority (PSA), and International Conflict Alert in the Philippines. Extensive consultations, interviews, and presentations with government officials, CSOs, non-governmental organizations (NGOs), and IP communities were undertaken to inform the design and implementation of the IP Engagement Strategy and this report. Through the consultation process and while considering data availability, the World Bank identified areas that require attention and further research. The report has three objectives: 1) to present the state of the existing IP-specific data in the Philippines by mapping official data sources and conducting data collection efforts, in order to better understand data challenges and help close existing data gaps; 2) to analyze the data by systematizing results and outlining key actions on poverty, human development, and social cohesion; and 3) to use the data when addressing the issue of conflict and land tenure in Mindanao by analyzing how IPs, land tenure, and conflict correlate.

The World Bank approaches this report through the lens of data, poverty, inequality, and conflict to understand the different dimensions of social exclusion that IPs face in the country. There is a lack of data on IPs in official statistics, national surveys, and administrative records, hindering a comprehensive examination of the intersectionality between ethnicity, poverty, conflict, and geography. Currently, there are only a few

reliable sources of information, and the data tends to be indicative rather than systematic. This lack of proper representation in official data constitutes one of the first layers of social, economic, and political exclusion faced by IPs. Consequently, IPs remain statistically hidden in the country, as they are not properly accounted for in national statistics.

Beyond this report's focus on data, poverty, inequality, and conflict – topics that were selected due to their relative data availability – there is a need for further research. The new IP Household Survey represents a distinctive opportunity to explore new research angles that were previously constrained by data limitations. Potential future research directions include continued and deeper analysis of a) the intersectionality between ethnicity, poverty, and geography and how they constrain IPs' identified priorities in the education, health, and water sectors; b) the vulnerabilities IPs face utilizing new survey data related to gender-based disparities, socioeconomic activities, disability, sexual orientation, religion, discrimination, conflict, and displacement and migration; c) IP communities' self-reported perceptions, such as how they experience poverty, food insecurity, and nutrition; d) how poverty reduction and social safety nets programs benefit IP populations, including how they are shaped by cultural norms, socioeconomic context, and local governance structures in order to help improve targeting, enhance access, and better reach isolated communities; and e) socioeconomic development aspects related to Ancestral Domains and productive activities in sectors such as agriculture, water, energy, transport, and telecommunications. A more nuanced understanding of how IPs navigate various social and economic phenomena will both facilitate the formulation of better policies to address their challenges and ensure that these policies and programs resonate properly with the communities they are designed to benefit.

The World Bank hopes that these different knowledge products become central sources of information and tools for government institutions, researchers, and national and international organizations to inform their policies, development programs, and advocacy efforts to address the unique circumstances IP communities face in the Philippines. The World Bank also intends to use this data to inform its own development agenda.

CONTENTS

LIST OF ACRONYMS

- **4Ps** - Pantawid Pamilyang Pilipino Program
- **ADs** - Ancestral Domains
- **ADB** – Asian Development Bank
- **ADSDPPs** - Ancestral Domain Sustainable Development and Protection Plans
- **ADO** - Ancestral Domain Office
- **ALS** - Alternative Learning System
- **APIS** - Annual Poverty Indicators Survey
- **ARMM** - Autonomous Region in Muslim Mindanao
- **ARWS** - Agricultural Rate Wage Survey
- **BARMM** - Bangsamoro Autonomous Region in Muslim Mindanao
- **CA** - International Alert Philippines' Conflict Alert initiative
- **CADT** - Certificate of Ancestral Domain Title
- **CAF** - Census of Agriculture and Fisheries
- **CALT** - Certificate of Ancestral Land Title
- **CARB** - CADT/CALT Application Record Book
- **CARP** - Comprehensive Agrarian Reform Program
- **CARPER** - Comprehensive Agrarian Reform Program Extension with Reforms
- **CEB** - Commission En Banc
- **CDT** - Community Delineation Team
- **CLOA** - Certificate of Land Ownership Award
- **CLT** - Certificate of Land Transfer
- **CP** - Certification Precondition
- **CPH** - Census of Population and Housing
- **CSO** – Civil Society Organizations
- **DAFAC** - Disaster Assistance Family Access Card
- **DAR** - Department of Agrarian Reform
- **DEC**- Development Economics
- **DENR** - Department of Environment and Natural Resources
- **DepEd** - Department of Education
- **DOH** – Department of Health
- **DSWD** - Department of Social Welfare and Development
- **EAP** - East Asia and Pacific
- **EBEIS** - Enhanced Basic Education Information System
- **ELCPV** – Poverty and Equity Group, World Bank
- **FHS** - Family Health Survey
- **FIES** - Family Income and Expenditure Survey
- **FLEMMS** - Functional Literacy, Education and Mass Media Survey
- **FPIC** - Free and Prior Informed Consent
- **FPS** - Family Planning Survey
- **GCOV** - Group Coefficient of Variation
- **GGini**- Group Gini index
- **GTheil**- Group Theil index
- **GIDAs** - Geographically Isolated and Disadvantaged Areas
- **GovTech** - Government Technology Global Partnership
- **ICC** - Indigenous Cultural Communities

- **IEC** - Information Education and Consultation
- **ILO** - International Labour Organization
- **IPs** - Indigenous Peoples
- **IP HH** - Indigenous Peoples Household Survey
- **IPRA** - Indigenous Peoples Rights Act
- **Kalahi-CIDSS** - Kapit-Bisig Laban sa Kahirapan - Comprehensive and Integrated Delivery of Social Services
- **LAR** - Land Acquisition and Resettlement
- **LFS** - Labor Force Survey
- **LGU** - Local Government Units
- **LRA** - Land Registration Authority
- **MCCT** - Modified Conditional Cash Transfer
- **MCHS** - Maternal and Child Health Survey
- **MTB-MLE** - Mother Tongue-Based Multilingual Education
- **MIPA** - Ministry of Indigenous Peoples Affairs
- **MILF** – Moro Islamic Liberation Front
- **MNLF** – Moro National Liberation Front
- **MSD** – Mining Sector Diagnostics
- **NCDDP** - National Community-Driven Development Project
- **NCIP** - National Commission on Indigenous Peoples
- **NCMF** - National Commission on Muslim Filipinos
- **NDHS** - National Demographic and Health Survey
- **NGO** - Non-Governmental Organizations
- **NNS** - National Nutrition Survey
- **NPA** – New People's Army
- **PCERP** – Philippines Covid-19 Emergency Response Project
- **PDP**- Philippine Development Plan
- **PDT** - Provincial Delineation Team
- **PH-EITI** – Philippines Extractive Industries Transport Initiative
- **PHP** – Philippine Peso
- **PhilSys** - Philippine Identification System
- **PNP** – Philippine National Police
- **PPIPF** - Pantawid Pamilya Indigenous Peoples Framework
- **PSA** - Philippine Statistics Authority
- **PSDP** - Philippine Statistical Development Program
- **PSI** - Preliminary Socioeconomic Information
- **PSRC** - Philippine Survey and Research Center
- **PSS** - Philippine Statistical System
- **PSU** - Primary Sampling Units
- **RD** - Register of Deeds
- **RO** - Regional Office
- **RSBSA** - Registry System for Basic Sectors in Agriculture
- **SAC** - Social Amelioration Card
- **SDGs** - Sustainable Development Goals
- **SEAS** – Southeast Asia Unit, World Bank
- **SOC** - Survey on Children
- **SSI GP** – Social Sustainability and Inclusion Global Practice
- **SSU** - Secondary Sampling Units
- **STH** - Soil-transmitted Helminth
- **SWS** - Social Weather Stations

EXECUTIVE SUMMARY

Indigenous Peoples (IPs) play a critical but often overlooked and misunderstood role in global development. As culturally distinct communities and stewards of a large share of the world's natural resources, IPs have important contributions to make to the sustainable development agenda. IPs are also typically vulnerable to very high levels of poverty. Despite representing just 6 percent of the global population, the estimated 476 million IPs worldwide account for nearly 19 percent of all people living in extreme poverty today. This means that better understanding IPs and their needs should be a priority for global development – and that efforts to eliminate poverty will be unsuccessful unless they focus on and prioritize issues facing IPs.

Such challenges are particularly salient in the Philippines, a country where nearly 9 percent of the population are IPs, and the government fully recognizes IP rights in its constitution and national legislation. Yet determining or analyzing the extent and composition of the country's IP population has long been difficult, since much of the data collected for official statistics is not disaggregated by ethnicity, and for the IP-related data that does exist, there is a lack of coherence between the various datasets maintained across the government. While the limited available evidence suggests that IPs remain among the poorest, most vulnerable, and marginalized populations in the country, there has been scant research exploring the relationship and intersectionality between poverty and ethnicity, or on the inequalities that exist within and among different ethnic groups in the country.

The key constraint preventing a better understanding of IPs in the Philippines is limited data and information. This is a global problem, and the UN Declaration on the Rights of Indigenous Peoples in 2007 has triggered a sustained call for better statistics on IPs. Since then, the Philippines has made some important strides in recognizing IPs and collecting data, but significant gaps remain. Data collection is challenging, and IP statistics are complex due to factors such as topography and logistical difficulties, language barriers, discrimination, conflict, and the tendency of IPs not to self-identify due to fear of stigma. These challenges are compounded by the lack of systematic data collection, harmonization, and standardization of methodologies and common approaches – or even standard ethnicity definitions and variables – across government agencies. Beyond the census, few national household surveys attempt to track IPs, and most do not include any ethnicity variables.

Given these issues, IPs are nearly invisible in the country's official public data. This absence of comprehensive data leads to a lack of understanding of IPs' socio-demographic profiles and the extent of disadvantages they face in the Philippines. Moreover, without proper data, it is nearly impossible to propose accurate poverty reduction strategies or to improve IP targeting for social programs.

It is into this context that the No Data, No Story report enters, seeking to help fill some of the data gaps and offering new analysis on the country's IP populations, their demographics, ancestral domains, and the interactions between land, conflict, and poverty.

Who and where are IPs in the Philippines?

Chapter 1 of the report provides an overview of the available statistics on IP communities in the Philippines and an analysis of the challenges in collecting and understanding IP data in the country.

Despite challenges around data and evidence, the Philippines Census of Population and Housing (CPH) remains the most accurate source of information on the country's IP population. The 2020 CPH found that the IP population in the Philippines is 9.46 million, or approximately 8.7 percent of the national population. Muslim ethnic groups account for 5.87 million people, or 5.4 percent of the Philippines' total population. Geographically, about 49 percent of IPs are in Luzon, 47 percent are in Mindanao, and 4 percent are in Visayas. Within the different regions, Mindanao's Region XI (Davao) and Northern Mindanao represent the highest concentrations of IPs, accounting for 13.8 percent and 10.4 percent of the country's total IP population, respectively. Within Luzon, 15.1 percent of the country's IPs are in the Cordillera Administrative Region (CAR), 13.2 percent are in Cagayan Valley, and 9.7 percent are in the Southwestern Tagalog Region (MIMAROPA). Within Visayas, Region VI (Western Visayas) has the largest number of IPs, representing 3.2 percent of the country's total IP population.

IPs are heterogeneous by nature, belonging to many different ethnicities and residing in many different locations around the world. In the Philippines, the 2020 CPH identified 228 distinct IP groups in addition to several groups that are identified as both IP & Muslim ethnic groups– underscoring the country's rich diversity. Following a consultative process involving IP representatives from the National Commission on Indigenous Peoples and the National Commission on Muslim Filipinos, the CPH defined four salient ethnic groups in the country that this report adopts: i) "IPs" who are not Muslim, ii) IPs who also belong to Muslim ethnic groups ("IP & Muslim ethnic groups"), 3) "Muslim ethnic groups" who are not IPs, and 4) "non-IP" ethnic groups who are neither IPs nor Muslim. As noted, most IPs are concentrated in Luzon and Mindanao, while members of IP & Muslim ethnic groups and Muslim ethnic groups are mostly in Mindanao. The majority of the BARMM's population comprises Muslim ethnic groups, while IPs are the majority in CAR.

In addition to their important population size, IPs concentrate around a significant amount of land across the country known as ancestral domains (AD). The Philippines has made notable achievements in recognizing IPs land rights. In Southeast Asia, the country is considered a pioneer for using stewardship agreements – established in the early 1980s – to recognize IP resource management rights and practices. The 1987 Philippine Constitution also made important progress towards government recognition of IP rights. Likewise, in 1997, the Indigenous Peoples Rights Act (IPRA) paved the way for formal recognition of IPs' customary rights over their ancestral lands. Under the IPRA, ADs are formally recognized through Certificate of Ancestral Domain Titles (CADTs) and Certificate of Ancestral Land Titles (CALTs), which cover terrestrial, coastal, and aquatic ecosystems.

Substantial gaps remain, however. For example, the Philippines has yet to ratify International Labour Organization Convention 169 on Indigenous and Tribal Peoples, indicating misalignment with international standards on IP rights. Moreover, despite the enormous amount of land covered by ADs in the Philippines, much of it remains in administrative limbo. The land under CADTs registered and nonregistered yet represents around 20.5 percent of the country's total land area, and based on NCIP data, there were 257 ADs with approved CADTs as of early 2023. But only 55 (22 percent) of these CADTs were fully registered and 202 (78 percent) were still pending registration with the Land Registration Authority. These issues have consequences for sustainable management of the country's natural resources. For instance, CADTs overlap with 1.44 million hectares of protected areas and 1.35 million hectares of key biodiversity areas – around a third of all such areas in the Philippines – and intersect with 75 percent of the country's remaining forest cover. Another 5 percent of protected areas are not listed as protected areas but managed by Indigenous Community Conservation groups.

The significant limitations regarding data on IPs and other ethnic minorities in the country have constrained efforts to target IPs to address their needs and improve their well-being. However, there are some notable exceptions. The Department of Social Welfare and Development (DSWD), for instance, has integrated multiple ethnicity variables to track support provided to IPs through its social safety net programs. Although there is room for improvement, these efforts have served to improve and expand specific IP-targeting schemes such as the Modified Conditional Cash Transfer Program for Indigenous Peoples in Geographically Isolated and Disadvantaged Areas, or GIDAs. Among the country's social assistance programs, the Pantawid Pamilyang Pilipino Program or 4Ps program is the most well-known and most utilized by IPs. Nonetheless, despite DSWD's efforts to integrate ethnicity variables to support IPs, the overall diversity of IPs remains statistically hidden across government institutions.

Enhancing efforts to target IPs and investing in a better future for IP communities should be a critical priority for the country moving forward. The institutional context, complications in collecting and analyzing disaggregated IP data, and lack of standardized ethnicity variables in statistical databases, analytical tools, and reports hides the country's most vulnerable populations from official view. This ultimately obscures and overlooks the complexity and diversity of IP populations in the Philippines and has significant implications for how the development challenges facing IPs are tackled. Moreover, as noted, efforts to eliminate poverty – in the Philippines or globally – will not be successful unless IPs, who represent a significant share of the extreme poor, are a central focus of such efforts. Lack of data collection and systematization on IPs also undermines national as well as global efforts to collect disaggregated data on the Sustainable Development Goals (SDGs) and design well-tailored policies and development actions.

What are IPs' living conditions and livelihood opportunities?

Chapter 2 of the report discusses the poverty, living conditions, social cohesion, and employment and livelihoods of IPs, IP & Muslim ethnic groups, and Muslim ethnic groups in the Philippines, highlighting disparities, and revealing considerable inequalities both within and across ethnic groups in the country.

Globally, IPs and ethnic minorities face a range of common trends and challenges, such as disproportionately high poverty rates (even in countries that experience economic growth), poor living conditions, and limited access to basic services. In the Philippines, analysis of CPH data – as well as data from the newly conducted IP Household (IP HH) Survey – finds that many of these trends and challenges are also present among the country's IP and Muslim ethnic group populations. While the country's sustained economic growth in recent decades reduced poverty from 49.2 percent to 16.7 percent from 1985 to 2018, inequality remains high and progress in poverty reduction has been uneven across geographic regions – particularly in areas where IPs and other ethnic minorities reside. The notion of poverty among IPs and ethnic minorities is often nuanced, focused not solely on material wealth but also communal well-being and the sharing of resources. There are large variations across IPs in terms of living conditions, but they remain consistently disadvantaged relative to non-IPs.

Analysis using CPH 2020 shows that IPs concentrate in both poor and better-off regions of the country. In Mindanao, for example, they are spread across regions and provinces with poverty rates ranging from below 20 percent in Davao to above 30 percent in Caraga and Zamboanga. In Luzon, IPs represent about two-thirds of the population of CAR, where poverty is relatively low, but also about a quarter of the population in MIMAROPA, where poverty is relatively high. In contrast, Muslim ethnic groups as well as IP & Muslim ethnic groups are concentrated in Mindanao, mainly in BARMM, which has the country's highest poverty rate.

Beyond poverty, the most pressing concerns for IPs are education, health, access to clean water, and social assistance, according to results from the IP HH Survey. Low levels of education and higher rates of illiteracy among IP and Muslim ethnic groups[1] limit opportunities for employment in productive jobs, further reinforcing inequalities across ethnic groups – though there are large geographic variations in education levels among IPs, and younger generations seem to have higher education levels than older ones. Health outcomes for IP and Muslim ethnic groups are affected by disparities in access to health professionals and health centers, given that many of these communities are geographically remote. Significant proportions of IPs, especially among the elderly, experience health difficulties. While access to basic services is generally high at the national level, disparities across ethnic groups have remained significant. More households from IP and Muslim ethnic groups lack access to improved drinking water, sanitation, and electric lighting compared to non-IPs groups. IP and Muslim ethnic groups are also more likely to suffer from malnutrition and food insecurity.

IP and Muslim ethnic groups face important challenges in developing human capital, although younger generations are performing better than their parents. Around 20 percent of the Muslim ethnic groups population and 10 percent of IPs do not have birth registration and certificates, which limits their access to essential social and human-capital building services. The absence of a birth certificate is particularly high among the elderly. Birth certificates are necessary to help build children's human capital in terms of attending school, receiving immunizations and other healthcare services, and having their rights protected (e.g., against child labor, early marriage, and violence), which critically affect their future job and economic opportunities.

Notably, IP and Muslim ethnic groups also tend to live in poorer housing conditions than the rest of the population, which renders them more vulnerable in terms of safety, health, and income. Relative to non-IPs, they tend to have larger households with more children, increasing care needs and exerting more pressure on resources, which can impact their ability to improve living standards.

Employment in agriculture continues to dominate economic activity among IP and Muslim ethnic groups in the country, though younger workers, and those with higher levels of education are increasingly employed in services. There are also wide variations in the class of work, with private businesses employing a lower share of IP workers compared to the non-IP working population, and more IPs and Muslim ethnic group members

[1] For reader-friendliness, the term "IP and Muslim ethnic groups", except when otherwise differentiated, refers to all three groups: IPs, IPs & Muslim ethnic groups, and Muslim ethnic groups.

engaged in self-employment and unpaid family work. The IP HH Survey also reveals that IPs are more likely to be employed in less productive sectors than non-IPs, though these disparities are influenced more by geographic location than ethnicity. Younger and more educated IP and Muslim ethnic groups seem to engage less in agriculture.

Gender gaps in the labor market appear to be larger among IP and Muslim ethnic groups. Across all ethnic groups, women who do work tend to engage in the services sector and less in agriculture, and they also engage more in high- and middle-skilled occupations than men. While the overall labor force participation rate is lower among women in IP and Muslim ethnic groups than for non-IP women, the proportion of IP and Muslim ethnic group women engaged in low-skilled occupations and agriculture is more than double the rate for non-IP women. Working women also tend to engage more than men in unpaid family work, and these proportions are also higher among IP and Muslim ethnic groups – where the share of women in unpaid family work is more than three times higher than their non-IP counterparts.

Despite high rates of poverty, IP groups report feeling pride about their indigenous identity and a strong sense of belongingness to the Philippines as well as a good relationship with their community. According to the IP HH Survey, 89 percent of IPs said they are very proud or somewhat proud of their indigenous identity – proportions that are consistent across all age groups and regions. Similarly, 73 percent of IP respondents said they have a strong sense of belongingness to people that share the same IP background or ethnicity as them. Beyond their indigenous identities, 77 percent of IP respondents also reported having a strong sense of belongingness to the Philippines, compared to 73 percent of non-IPs.

Chapter 2 also includes an analysis of horizontal inequalities among ethnic and regional groups across various living condition indicators to better understand the disparities in well-being at both national and subnational levels. Using the Group Coefficient of Variation approach to analyze horizontal inequalities across salient ethnic groups and regions at various spatial levels, the analysis reveals significant disparities in education, health, and access to economic and infrastructure services, particularly pronounced among IPs, IP & Muslim ethnic groups, and Muslim ethnic groups, when compared to non-IPs. Notably, IP & Muslim ethnic groups and Muslim ethnic groups are identified as the most disadvantaged across all well-being indicators, with significant gaps in education and access to infrastructure. The research also identifies pronounced spatial inequalities that often exceed ethnic disparities, highlighting the role of birthplace as a determinant of unequal opportunities, particularly affecting IP groups who have lower migration tendencies, thus perpetuating poverty, and inequality across generations. The analysis extends to the regional differences within the Philippines, highlighting that Mindanao has the highest levels of inequality and poverty and showing large disparities in education and access to essential services and infrastructure. The findings suggest that while certain disparities are more pronounced at the national level, inequalities between ethnic groups appear to be more pronounced at higher levels of spatial aggregation.

Chapter 2 concludes by calling for policymakers to better understand the drivers behind these inequalities, which could help formulate policies to address these critical gaps in living conditions and standards. For example, a survey to better assess the extent of the gaps between ethnic groups is needed – but this is only one of many necessary steps. Concerted efforts are necessary to develop a clearer understanding of the challenges faced by ethnic minority groups to identify, shape, and implement policies for long-term, sustainable development while making progress on the SDGs.

What is the relationship between land, conflict, and poverty?

Chapter 3 of the report explores the complex interplay between land, conflict, and poverty among IP communities in the Philippines, with a particular focus on Mindanao. The analysis takes advantage of data from the most recent (2020) census and combines it with poverty data, administrative sources on CADTs, land tenure governance analysis, and 10 years of statistics on violent incidents.

For IPs, land is more than an asset or commodity; it is a foundational component of IP communities' identity and culture. Yet IPs in the Philippines have experienced a history of land expropriation, displacement, resource degradation, and conflicts arising from contested land claims and inadequate legal frameworks. The chapter

offers fresh analysis and new findings on the linkages between land, conflict, and poverty in Mindanao, where conflict zones exhibit higher poverty levels, lower levels of human development, and lower rates of economic growth compared to other regions in the Philippines.

The main finding from this analysis is that areas in the Philippines with higher shares of IPs are associated with less conflict, including land-related conflicts. However, the analysis also shows that CADT processing delays can increase violence. While CADTs are an important land policy that offers IPs with a path towards land ownership and titling, these findings suggest that the existence of CADTs alone does not solve the many land-related conflicts facing IPs in the Philippines. In particular, the analysis shows that conflicts can increase when land titling is delayed by administrative processes (including cumbersome bureaucratic processes, insufficient resources, and weak institutional capacity).

Moreover, IPs often face insurmountable bureaucratic hurdles in their efforts to process CADTs – which, if they were more easily obtained, could be important sources of income, jobs, and development. The process of delineating and recognizing CADTs is complex and time-consuming, resulting in significant delays in issuing and registering CADTs. Efforts to address CADT implementation challenges are necessary but not sufficient, however. The report reveals the problem that too few CADTs are fully registered and that "approved but not yet registered" CADTs can increase violence. The chapter makes the case for strengthened land governance, improved dispute resolution mechanisms for overlapping titles, and a more inclusive and effective implementation of CADTs and the IPRA. These efforts must be coupled with stronger land governance, including efforts across government agencies to strengthen systematic data collection, harmonization, and standardization of methodologies and common approaches for IP-related data.

Recognizing and protecting IP land rights is a crucial step in addressing poverty and conflict. Weak land governance also exacerbates poverty: insecure property rights discourage investments, undermine the government's ability to collect land taxes, and deprive the poor of a critical asset base. These factors combine into a vicious cycle, as insecure property rights led to weak job creation, food insecurity, limited access to essential services, low productivity, and underemployment. Success on these reforms, on the other hand, promises far-reaching benefits, including increased investment, job creation, income, and wealth generation for IPs and vulnerable communities, and – ultimately – less poverty and conflict. While the chapter focuses on Mindanao, it is likely that the results could apply to other areas with IP and other ethnic minority populations in the Philippines.

Conclusion

No Data, No Story: Indigenous Peoples in the Philippines underscores persistent data gaps and the need for more analysis into disaggregated data collection, conflict, land, sustainability, and other IP issues in the Philippines. It makes clear that improving IP data collection and harmonization is essential for acknowledging and addressing the unique needs and challenges facing IPs. More and higher-quality data is always needed for better policymaking, but this is especially true for the case of IP issues in the Philippines. Agencies and organizations focused on IP issues in the country should recognize the importance of strengthening IP data collection efforts – and an agenda to strengthen IP data collection starts with addressing the need to provide standardized guidelines to harmonize ethnic variables across government agencies.

More broadly, the report highlights the power of data to illuminate potential solutions to public policy challenges. Without data, there is no story to tell, and without a story based on data and evidence, policymakers will struggle to design or implement effective and well-targeted interventions. This is true for any policy effort globally, but especially true for the much-needed efforts to support and enhance IPs' development and well-being in the Philippines. Only with more detailed and precise data will policymakers be equipped to reduce conflict, strengthen land governance, and reduce poverty more effectively – for IPs and for all members of Philippine society.

CHAPTER 1

Indigenous Peoples statistics and data challenges

CHAPTER 1

INDIGENOUS PEOPLES STATISTICS AND DATA CHALLENGES

Indigenous Peoples (IPs) are culturally distinct societies and communities. There are an estimated 476 million IPs worldwide. While they make up just 6 percent of the global population, they account for about 19 percent of the extreme poor.[2] The wide range in estimates of IP population sizes demonstrates the difficulty in defining, identifying, and counting IPs globally. In Latin America, the identification of IP populations is relatively unproblematic due to advocacy and administrative data collection efforts. However, in Asia – where the majority of the world's IP population are located, with approximately 227–257 million IPs[3] – the figures are less clear and may fluctuate dramatically, in part due to limited data collection.

The Philippines is one of the few Asian countries that officially uses the term "Indigenous Peoples," and IP rights are fully recognized under the Constitution and Indigenous Peoples Rights Act (IPRA). The 1987 Philippine Constitution (Section 22, Article 2) provides that IP rights be respected, recognized, promoted, and protected. The IPRA Republic Act No. 8371 of 1997 is considered a landmark legislation recognizing IPs' governance and rights over their territories, collectively known as Ancestral Domains (ADs). While there is no universally recognized definition for the term "Indigenous Peoples," the IPRA uses the following definition:

BOX 1

INDIGENOUS PEOPLES DEFINITION. IPRA 1997

"Indigenous Cultural Communities/Indigenous Peoples (ICCs/IPs) – refer to a group of people or homogenous societies identified by self-ascription and ascription by others, who have continuously lived as organized community on communally bounded and defined territory, and who have, under claims of ownership since time immemorial, occupied, possessed and utilized such territories, sharing common bonds of language, customs, traditions and other distinctive cultural traits, or who have, through resistance to political, social and cultural inroads of colonization, non-indigenous religions and cultures, became historically differentiated from the majority of Filipinos. ICCs/IPs shall likewise include peoples who are regarded as indigenous on account of their descent from the populations which inhabited the country at the time of conquest or colonization, or at the time of inroads of non-indigenous religions and cultures, or the establishment of present state boundaries, who retain some or all of their own social, economic, cultural and political institutions, but who may have been displaced from their traditional domains or who may have resettled outside their ADs."

Since the UN General Assembly endorsed the UN Declaration on the Rights of Indigenous Peoples in 2007, there has been a strong call for countries to improve statistics related to IPs and make IPs more visible.[4] However, progress on this issue has been disappointing in many countries, with several having minimal or nonexistent statistics on their IP populations. The World Bank has acknowledged the need for more and better data on IPs, noting that disadvantaged populations are often left out of population surveys and calling for a new social contract on data.[5] Marginalized people need better representation, and data and information systems must be designed with these challenges in mind. The stark absence or under-representation of IPs in official statistics around the world prevents an accurate understanding of their population sizes, socio-demographic profiles, and territories as well as the extent of the challenges and disadvantages they face.

[2] World Bank. Indigenous Peoples Overview. https://www.worldbank.org/en/topic/indigenouspeoples 2023.
[3] World Indigenous Report, International Work Group for Indigenous Affairs, 2020.
[4] United Nations, Department of Economic and Social Affairs, State of the World's Indigenous Peoples: United Nations Publications, 2015.
[5] World Bank, World Development Report: Data for Better Lives, 2021.

In many countries, IP statistics are subject to considerable uncertainty because they tend to be indicative rather than systematic. These challenges are not unique to the Philippines; they are common across the East Asia and Pacific (EAP) region, where IP population figures are routinely unclear and often fluctuate from year to year. Conducting a population census in countries like the Philippines, which comprises more than 7,000 islands and more than 200 ethnic groups, faces several challenges – including logistical difficulties in reaching isolated communities, language barriers, discrimination, cost pressures, security concerns, and other complexities such as collecting data during the Covid 19 pandemic. Likewise, gathering information on small populations, especially when they are widely dispersed, is a special challenge that often requires alternative means to enumerate and describe national populations.[6] As a result, there is still uncertainty about the total number of IPs in the Philippines. The National Commission on Indigenous Peoples (NCIP), for instance, estimates that the country's IP population may be more than 15 million, i.e., around 16 percent. Other civil society organizations have calculated the IP population at 12 to 17 percent of the national population based on estimates from CountryMeters, which uses data from the UN.[7]

Definitions and variables of ethnicity used in official statistics also tend to change over time. The case of the Philippines is reflective of this global trend: the IPRA's definition of IPs (see box 1) provides guidance to ensure that IPs are accounted for and included in government programs. However, the country's ethnicity variables have changed significantly over the years. (i.e., according to tribe, religion, language or dialect, self-identification and descent, blood relation, and consanguinity), complicating efforts to consistently analyze IP populations. Ethnicity faces several challenges, including cases when a person's parents are of two different ethnicities. Likewise, some IPs may choose not to publicly identify themselves as members of an IP group due to fear of discrimination, stigma, or conflict. On the other hand, some IPs may not identify with the cultural and religious practices, traditions, and values of their respective group but may still occasionally choose to self-identify as IPs – for example, when shifts in cultural or personal mindsets reduce the fear of discrimination, stigma, or conflict or when benefits and privileges accrue to IPs' self-identification (e.g., scholarships, greater access to welfare programs, waivers on some government requirements, or land tenure security and rights over ancestral lands). These nuances underscore that IP communities are diverse and adaptable social groups rather than fixed and homogenous,[8] in no small part because their historical struggles over recognition, land tenure security, and cultural identity and integrity in the face of poverty, globalization, and climate change have forced them to constantly adapt to survive.

In the Philippines, IP data and information in official government statistics and administrative data are limited. This lack of IP data has constrained the capacity to study and analyze IPs in the country, including issues of diversity, poverty and inequality, and access to services. This has, in turn, limited the opportunity to establish a strong foundation on which policies, strategies, and programs could be developed to improve IPs' well-being. Given that IP communities are often poor and located in isolated and mountainous regions, their frequent invisibility in official data has prevented their access to government services and complicated efforts to design adequate targeting mechanisms that could reduce their exclusion. Without proper IP data, the government's efforts to address the root structural causes of marginalization will struggle to succeed.

Globally, IPs tend to be poor even in countries where economic progress has been steady – and this is the case in the Philippines. Economic growth in the country has reduced poverty from 49.2 percent in 1985 to 16.7 percent in 2018. However, inequality remains high and progress in poverty reduction has been uneven across geographic regions. Poverty reduction and economic growth is a regional challenge – particularly in isolated and mountainous regions and Mindanao, where poverty is concentrated in areas where IP communities and other ethnic minorities live. But determining the extent and composition of poor populations in the country is challenging, given how little analysis has been done on the intersectionality of poverty and ethnicity.

[6] Richard Madden. Statistics on indigenous peoples. International effort needed. Statistical Journal of the IAOS 32 (2016) 37-41.
[7] Tebtebba. Data: Leaving No Indigenous Peoples Behind in the Achievement of the SDGs. Policy Brief, 2021.
[8] World Bank, Indigenous Latin America in the Twenty-First Century, World Bank, 2015.

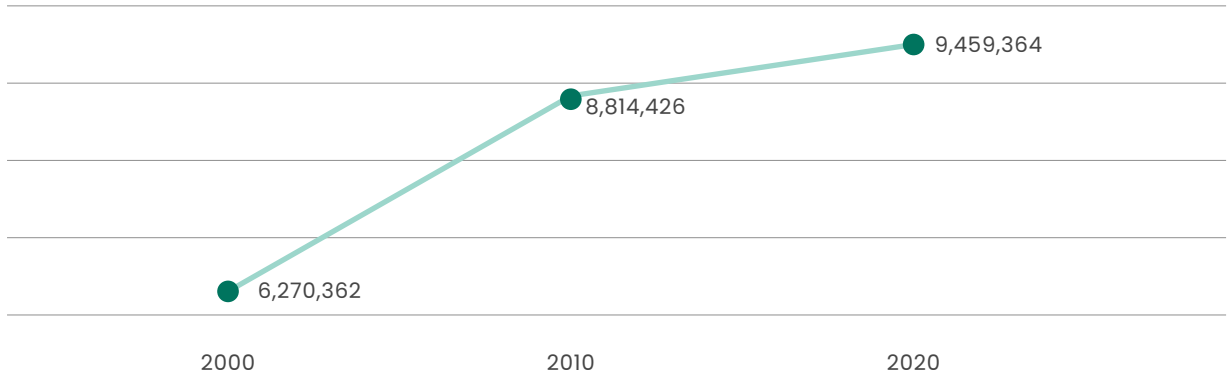
During and after the COVID-19 pandemic crisis, as the government devised strategies for economic recovery, the need to better understand the poor – as well as their ethnic characteristics, territorial and geographic disparities, and why poverty and exclusion affect IPs and other ethnic minorities differently despite the country's significant economic gains – became apparent. However, the information available on poverty and inequality among IPs is predominantly based on anecdotal evidence. While the limited available evidence suggests that IPs remain among the poorest, most vulnerable, and marginalized populations in the country, there is scant research exploring the relationship between poverty and ethnicity or inequalities within and among different ethnic groups in the country. IP and Muslim ethnic groups seem to have the most challenging living conditions, with lower rates of education and productive employment, higher food insecurity, less access to basic public services, and fewer assets. In this context, poverty, and economic progress in the Philippines – like in other Southeast Asian countries – has a specific ethnic component.[9]

IPs: HOW MANY AND WHERE THEY ARE

The Philippine Census of Population and Housing (CPH) remains the most accurate source of information on the country's IP population. Over the three CPH surveys since 2000, when ethnicity variables were first introduced, changes in classification have increased the number ethnic groups identified – which increased the official size of the IP population from 6.2 million in 2000 to 9.4 million in 2020 (Figure 1). While the figures from the three surveys are not comparable, since each census used a different ethnic classification, and NCIP and other IP organizations have argued that the logistical and cost difficulties in conducting a census in upland and isolated communities, including the complex social factors associated with language and conflict, prevent the generation of accurate IP population figures, the CPH still offers the most accurate and up-to-date information on the size, composition, distribution, and location of the country's IP population.

FIGURE 1

IP POPULATION IN THE CPH – 2000, 2010, 2020



Source: CPH 2000, 2010, 2020. Indicative figures are derived as each census used a different ethnic classification.

[9] World Bank Country Social Analysis. Ethnicity and Development in Vietnam, 2019.

The CPH 2020 includes 268 ethnic groups, showing the country's rich diversity.[10] Of the 268 ethnic groups identified in the 2020 CPH, 228 are IPs, 10 are IP & Muslim ethnic groups, 7 are Muslims ethnic groups and 23 are non-IPs and non-Muslim. Following a classification of ethnic groups, which was guided by the definition of Indigenous Peoples (IPs)[11] by NCIP and a consultation process with the NCIP, Philippine Statistics Authority (PSA), and NCMF, four salient ethnic groups were defined:

1. *IPs who are not Muslim (IPs)*
2. *IPs who also belong to Muslim ethnic groups (IP & Muslim ethnic groups)*
3. *Muslim ethnic groups who are not IPs (Muslim ethnic groups)*
4. *Ethnic groups who are neither IPs nor Muslim (non-IPs)*

While this report utilizes this classification of ethnic groups, which reflects a consensus reached among NCIP, PSA, and NCMF, it may vary from other classifications used in the country.[12] Appendix A and Tables A1-4 include a complete list of ethnic groups recognized in the 2020 census and their classification according to these four major groups. For simplification purposes, particularly in Chapter 2, the naming convention used is as follows: (i) IPs for IPs who are not Muslim; (ii) IP & Muslim ethnic groups for IPs who also belong to Muslim ethnic groups; (iii) Muslim ethnic groups who are not IPs; and (iv) non-IPs for groups who are neither IPs nor Muslim.

In addition to CPH 2020, this report relies on three core sources of data: a) the Social Weather Stations (SWS) survey series, b) the Indigenous Peoples Household Survey 2023 (IP HH Survey), and c) International Conflict Alert data. For clarity, the data and analysis using CPH 2020 is presented in this report using the four salient ethnic groups defined above. While SWS surveys follow a similar classification as in CPH 2020, due to sample size constraints they present data and analysis using only three groups: IPs, Muslim ethnic groups, and non-IP and non-Muslim. The IP HH Survey presents data and analysis using only two groups: IPs and non-IP and non-Muslim.

Based on the CPH 2020, the population of the Philippines is 108.67 million. As noted, the CPH 2020 found that the IP population is 9.46 million, or approximately 8.7 percent of the national total. The IP population comprises 8.21 million IPs (7.6 percent) and 1.25 million members of IP & Muslim ethnic groups (1.1 percent). Muslim ethnic groups represent an additional 5.87 million people (5.4 percent), largely located in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM). The country's non-IP population is 93.09 million (85.7 percent). (See Table 1.)

TABLE 1

SUMMARY OF POPULATION DISTRIBUTION BY CATEGORY, CENSUS OF 2020

Particulars	Philippines	IPs	IP &Muslim	Muslim Ethnic Groups	Non-IP	Foreigners/not stated
Population	108.67	8.21	1.25	5.87	93.09	0.25
Share	100 %	7.6 %	1.1 %	5.4 %	85.7 %	0.2 %
	Total	**9.4 million - 8.7%**				

Source: WB based on CPH 2020.

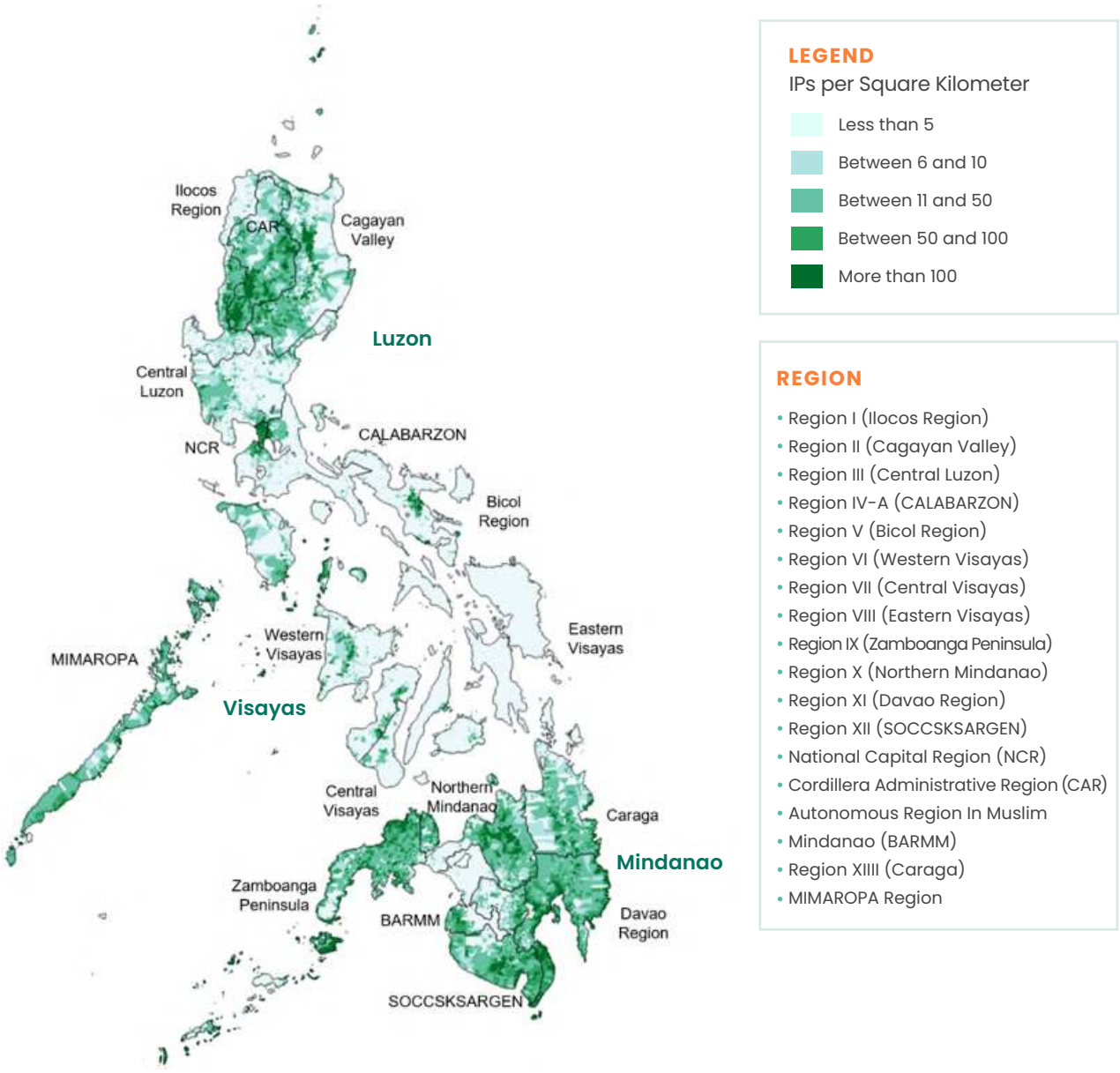
Geographically, most IPs are concentrated in Luzon and Mindanao, while members of IP & Muslim ethnic groups and Muslim ethnic groups are mostly in Mindanao. About 49 percent of IPs are in Luzon, 47 percent are in Mindanao, and 4 percent are in Visayas. Within the different regions, Mindanao's Region XI (Davao) and Northern Mindanao represent the highest concentrations of IPs, accounting for 13.8 and 10.4 percent of the national total, respectively.

[10] Excluding foreigners.
[11] See Box 1 in this report based on Section 3, Chapter II, Republic Act No. 8371 known as IPRA and NCIP Commission En Banc Resolution No. 07-36 2017 and No. 08.22 2019. Resolution approving ethnicity variables to be used for the 2020 CPH and Resolution approving additional ethnicity concepts and definitions and list of indigenous people's groups of the Philippines and MOA between NCIP and PSA for CPH 2020.
[12] The Philippine Statistical Authority uses the term Muslim Tribes. Other scholars use terms such as Muslim Filipinos, Moro communities, or Muslim Ethnic Groups. The Bangsamoro Organic Law uses the term Bangsamoro People.

Within Luzon, 15.1 percent of the country's IPs are in the Cordillera Administrative Region (CAR), 13.2 percent are in Cagayan Valley, and 9.7 percent are in the Southwestern Tagalog Region (MIMAROPA). Within Visayas, Region VI (Western Visayas) has the largest number of IPs, representing 3.2 percent of the country's total IP population. The population density of IPs nationally is reflected in Figure 2 and the distribution of ethnic groups across these three regions by location and main island groups is presented in Table 2.

FIGURE 2

IP POPULATION DENSITY PER SQUARE KILOMETER

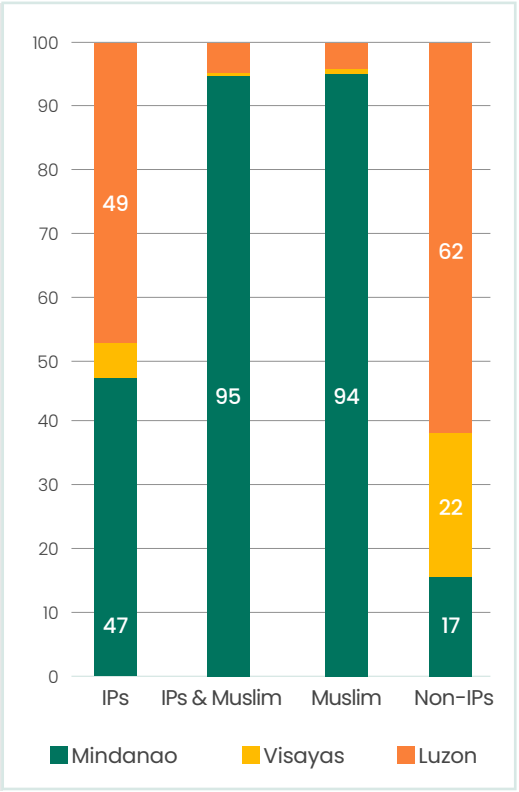


Source: World Bank based on CPH 2020.

TABLE 2

DISTRIBUTION OF ETHNIC GROUPS BY LOCATION AND MAIN ISLAND GROUPS, 2020, PERCENT

Geographic area	IPs	IPs & Muslim	Muslim	Non-IPs
Mindanao (total)	**47.2**	**94.6**	**93.8**	**16.8**
R IX - ZAMBOANGA	7.7	22.3	7.2	2.7
R X - Northern Mindanao	10.4	0.3	7.1	4.0
Region XI - Davao	13.8	10.1	1.7	4.1
R XII - SOCCSKSARGEN	8.4	2.6	11.2	3.2
Region XIII - CARAGA	6.7	0.1	0.2	2.4
BARMM	0.2	59.2	66.4	0.3
Visayas (total)	**4.0**	**0.4**	**0.5**	**21.6**
R VI - Western Visayas	3.2	0.1	0.2	8.2
R VII - Central Visayas	0.7	0.3	0.3	8.5
R VIII - Eastern Visayas	0.1	0.1	0.1	4.9
Luzon (total)	**48.8**	**5.0**	**5.7**	**61.6**
Region I - ILOCOS	3.0	0.1	0.2	5.4
Region II -Cagayan Valley	13.2	0.0	0.1	2.8
Region III - Central Luzon	2.5	0.3	0.6	13.0
R IV-A - CALABARZON	1.6	0.5	1.1	17.1
Region V- Bicol	1.5	0.0	0.1	6.4
National Capital Region	2.1	0.7	2.7	13.9
CAR	15.1	0.0	0.1	0.6
MIMAROPA	9.7	3.4	0.9	2.5



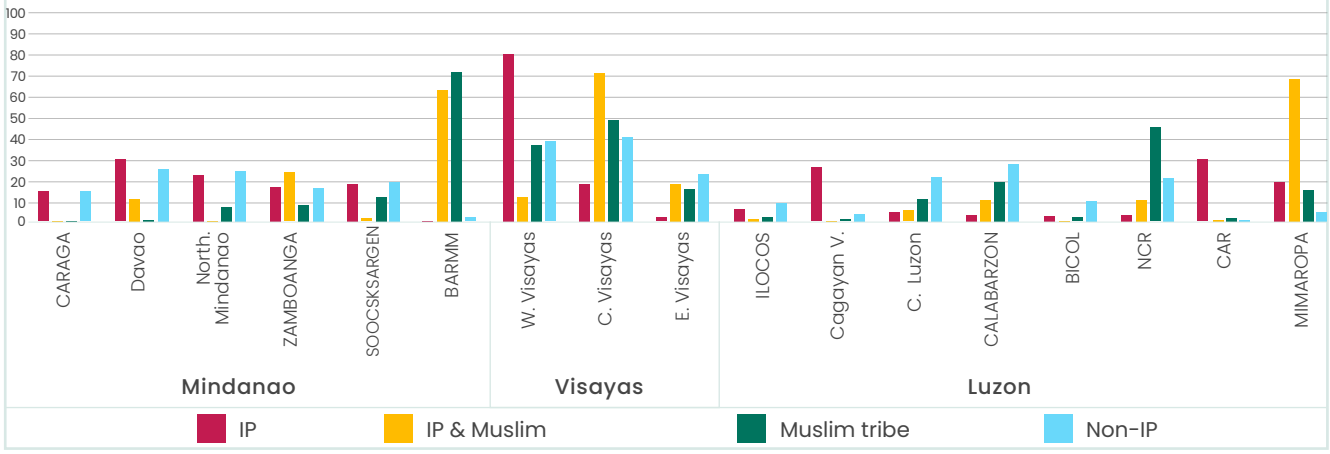
Source: *World Bank based on CPH 2020.*

Note: Figures in bold show the total share by main Island. For example: 47.2 percent of IPs are located in Mindanao as follows: 7.7 Percent in ZAMBOANGA, 10.4 percent in Northern Mindanao, 13.8 percent in Davao, 8.4 in SOCCSKSARGEN, 6.7 percent in CARAGA and 0.2 percent in BARMM.

IPs are the majority in the CAR while BARMM's population comprises mostly Muslim ethnic groups. IPs are spread across several regions in Luzon and Mindanao, but their largest concentration is in CAR, where they represent 1.24 million (69 percent) of CAR's total 1.79 million population (Figures 3 and 4).

FIGURE 3

GEOGRAPHIC LOCATION WITHIN MAIN REGIONS, 2020, PERCENT

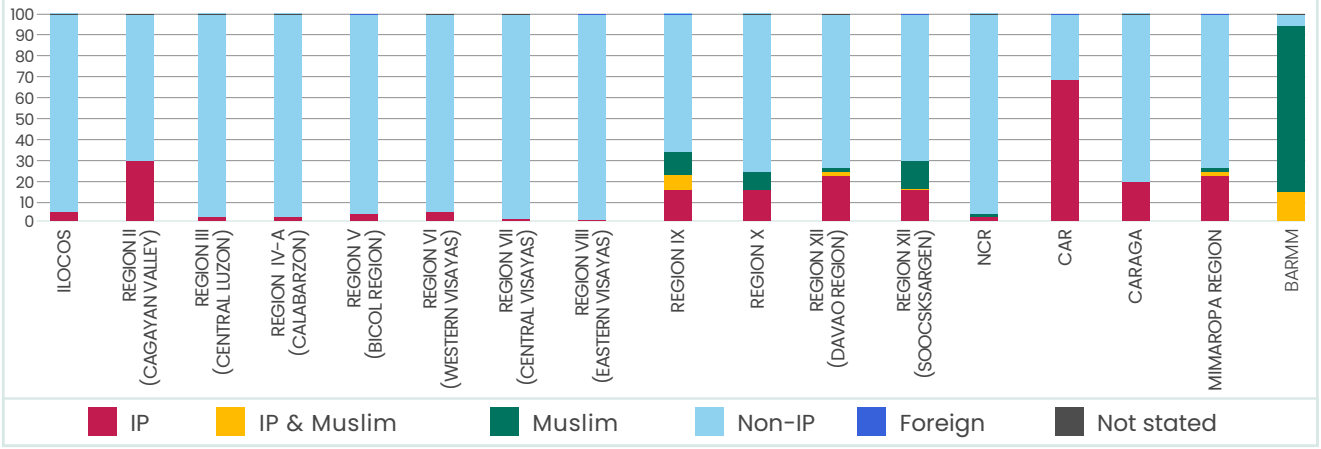


Source: *2020 Census of Population and Housing.*

Note: The figure shows the distribution of the four main ethnic groups across geographic locations within the country's main regions. For example: of the 3.86 million IPs living in Mindanao, about 1.13 million (29.3 percent) are in Davao. Similarly, of the 5.49 million Muslim ethnic groups living in Mindanao, about 3.89 million (71 percent) are in BARMM.

FIGURE 4

DISTRIBUTION OF POPULATION, PHILIPPINES, 2020, BY ETHNIC GROUPS

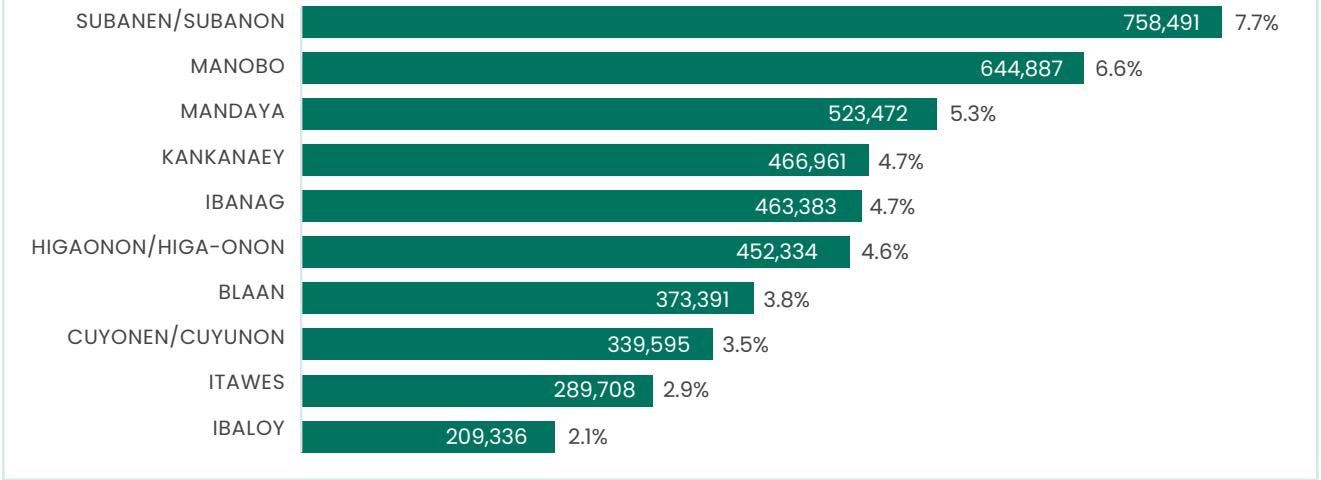


World Bank based on CPH 2020.

The country's largest IP populations are in Mindanao and Luzon. Figures 5 and 8 show the top 10 most populous IP groups, accounting for nearly 46 percent of the country's total IP population. Five of these groups are mostly in Mindanao and five are in Luzon. Based on the CPH 2020, the largest IP group is the Subanen or Subanon, with approximately 758,000 members. They speak the Subanon language, making Subanon the most common IP language spoken in the Philippines. The Subanen are mostly found in the northern, western, and southern portions of the Zamboanga peninsula in Mindanao. The second largest IP group is the Manobo or Manuvu, who are found mostly in SOCCSKSARGEN, with approximately 644,000 members. The Mandaya are the third largest IP group, living mostly in Davao Oriental, Davao del Norte, and Surigao del Sur. The fourth largest group is the Kankanaey, part of a collective group also known as the Igorot, with the largest concentration in Luzon, particularly in northern and south-central Cordillera. The other six largest IP groups include the Ibanag, living in the Luzon's northeastern provinces of Isabela and Cagayan; the Higaonon of north-central Mindanao; the B'laan people of Southern Mindanao (Davao region); the Cuyunen or Cuyunon people of the northern islands of Palawan, particularly the Cuyo Islands; the Itawes of Cagayan Valley in Northern Luzon and the Ibaloy or Ibaloi, an indigenous group from Benguet in northern Luzon.

FIGURE 5

10 LARGEST IP GROUPS IN THE PHILIPPINES

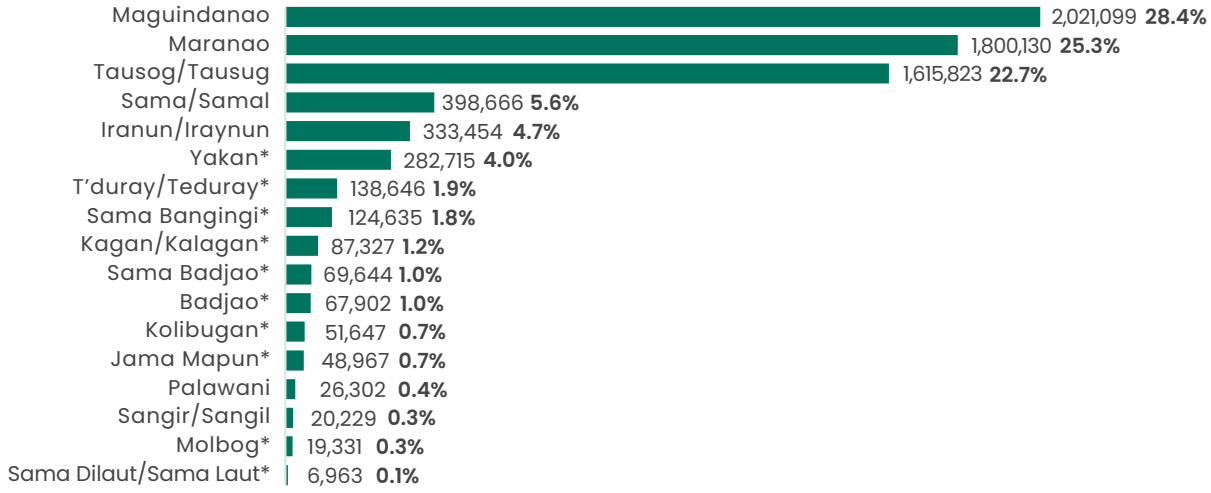


World Bank based on CPH 2020.

Muslim ethnic groups account for 5.87 million people, or 5.4 percent of the Philippines' total population. The Maguindanao is the country's largest Muslim ethnic group with 2.02 million people (28.4 percent of the total Muslims population). The Maranao are the next largest with 1.80 million (25.3 percent), followed by the Tausog/Tausug with 1.62 (22.7 percent). In addition, around 1.25 million (1.1 percent) identified as IP& Muslim ethnic groups.[13] Figure 6 shows the country's predominant Muslims ethnic groups as well as IP & Muslim ethnic groups indicating the latter with an asterisk (*). Most Muslim and IP & Muslim ethnic groups live in the BARMM (Figure 7). Based on CPH 2020, the BARMM has approximately 4.4 million people, or around 4.04% of the total population. 3.43 million (78 percent) of which are Muslims and around 738 thousand (17 percent) are both IPs & Muslim ethic groups, while only about 14,400 (0.3 percent) are identified as IPs (Appendix A, Fig A1).

FIGURE 6

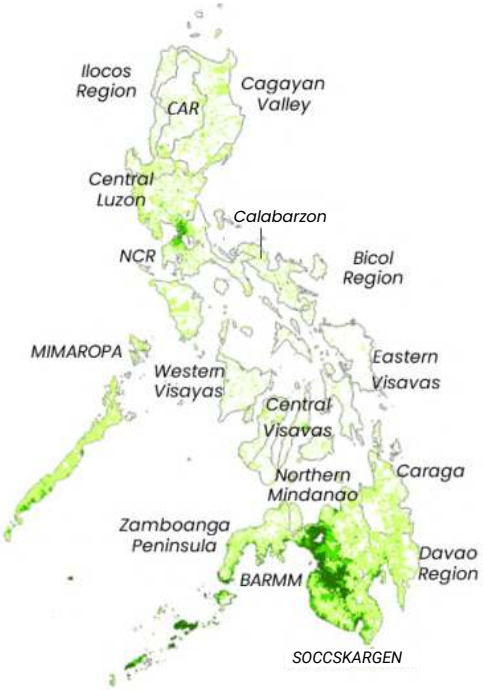
LARGEST MUSLIM ETHNIC GROUPS IN THE PHILIPPINES, 2020, BY POPULATION



** Also identified as IPs by the NCIP.*
Source: World Bank based on CPH 2020.

FIGURE 7

MUSLIM ETHNIC GROUPS POPULATION DENSITY PER SQUARE KILOMETER



LEGEND

Muslim density

- Less than 1 per sq km
- 1-10 per sq km
- 11-50 per sq km
- 51-100 per sq km
- More than 100 per sq km

REGION

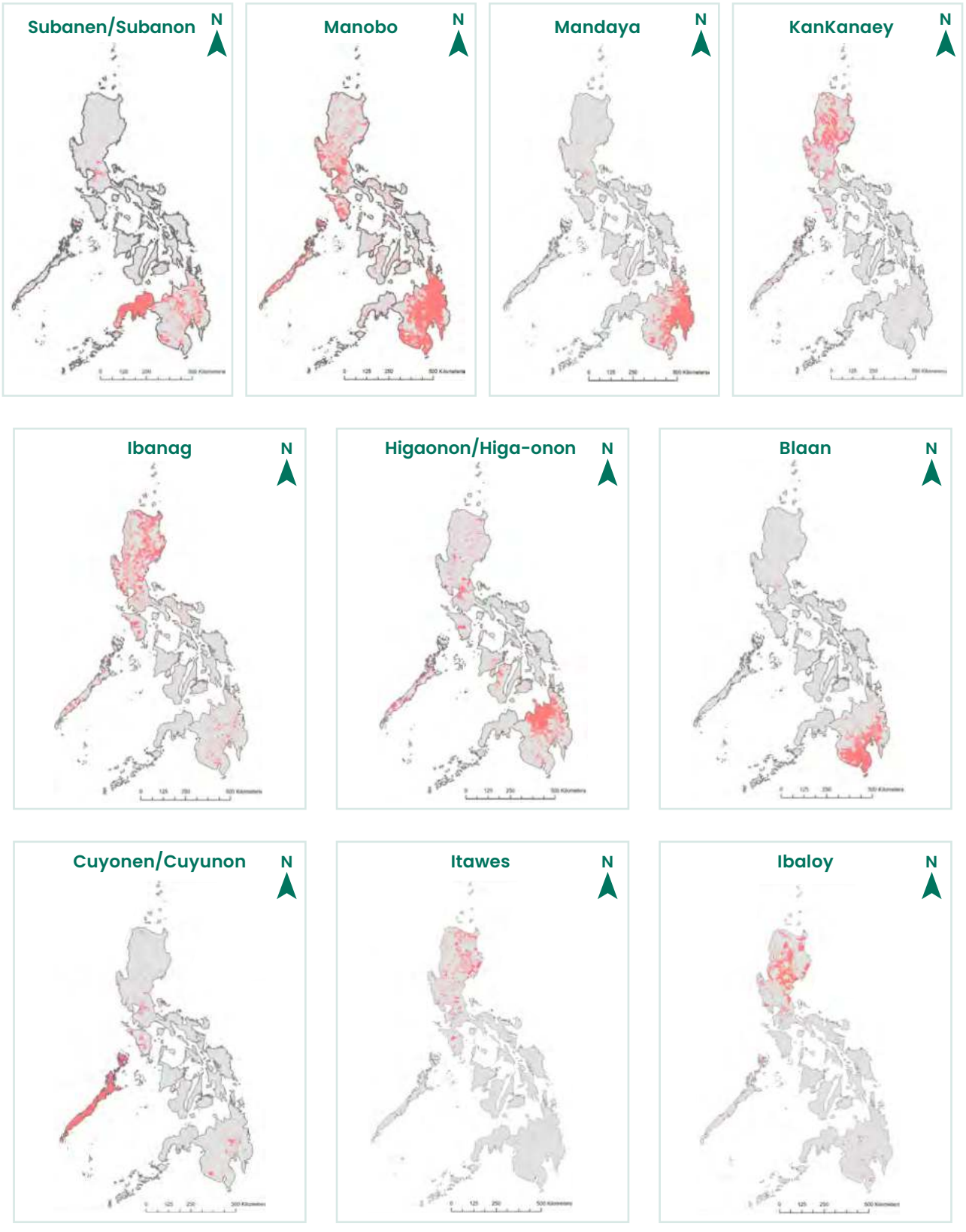
- Region I (Ilocos Region)
- Region II (Cagayan Valley)
- Region III (Central Luzon)
- Region IV-A (CALABARZON)
- Region V (Bicol Region)
- Region VI (Western Visayas)
- Region VII (Central Visayas)
- Region VIII (Eastern Visayas)
- Region IX (Zamboanga Peninsula)
- Region X (Northern Mindanao)
- Region XI (Davao Region)
- Region XII (SOCCSKSARGEN)
- National Capital Region (NCR)
- Cordillera Administrative Region (CAR)
- Autonomous Region In Muslim
- Mindanao (BARMM)
- Region XIIII (Caraga)
- MIMAROPA Region

Source: World Bank based on CPH 2020.

[13] See Appendix A, Table A2 for the list of ethnic groups identified as both IP and Muslim Ethnic Groups

FIGURE 8

10 LARGEST IP GROUPS AND LOCATION



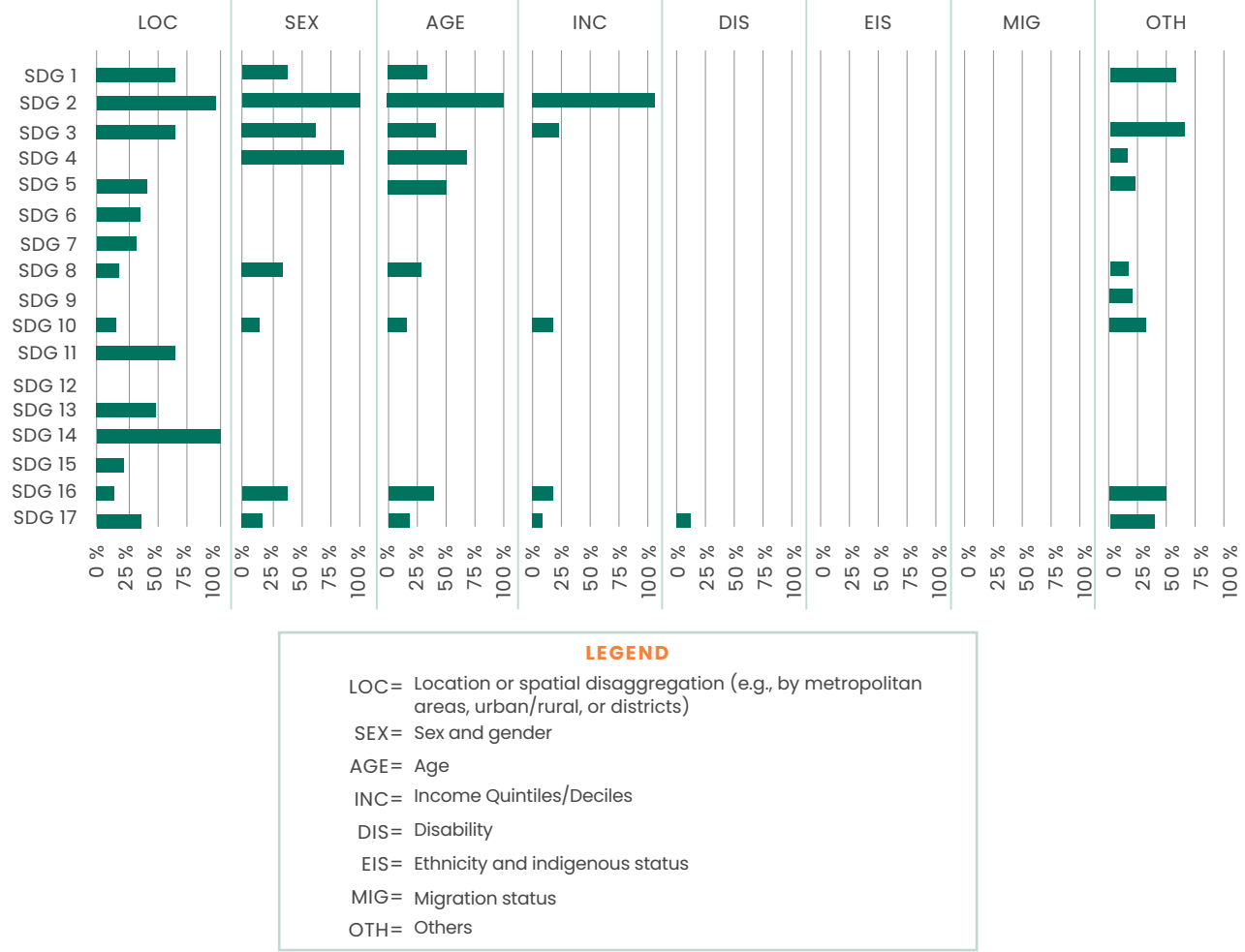
Source: World Bank based on CPH 2020.

DATA LIMITATIONS ON IPs AND OTHER ETHNIC MINORITIES

The data on IPs and other ethnic minorities in the country have significant limitations, reflecting the lack of systematic data collection, harmonization, and standardization of methodologies and common approaches across government agencies. Lack of data collection and systematization undermines national as well as global efforts to collect disaggregated data on the Sustainable Development Goals (SDG) and to design policy and development actions. The SDGs Inclusive Data Charter directs countries to collect disaggregated data on several variables, including sex and gender, age, income class, disability, ethnicity and IP status, migration status, and location. Currently, however, SDG data collection efforts by the Philippines lacks disaggregation by several variables, including IP status. Figure 9 illustrates the availability of disaggregated indicators for each SDG in the Philippine Statistical System (PSS) as of May 2018. While many of the available indicators have disaggregated variables in terms of location, sex, age, and income deciles, none are disaggregated by ethnicity or IP status, disability status, or migration status.[14] To address this problem, the PSA created the Philippine Action Plan on the SDGs Inclusive Data Charter, and the Philippine Development Plan (PDP) 2017-2022 called for an SDG-aligned Social Protection Statistical Framework within the Philippine Statistical Development Program (PSDP) to systematically track the status of vulnerable groups, including IPs. Unfortunately, the PDP 2023-2028 did not affirm the need for this framework. Further government action is needed to systematically include ethnicity-disaggregated variables into survey and administrative data across government agencies, to produce data with clear methodologies and established standards – including IP-disaggregated SDGs indicators.

FIGURE 9

STATUS OF DISAGGREGATION OF SDG INDICATORS IN PSA DATA, PHILIPPINES, 2018



Source: Philippine Action Plan on the SDGs Inclusive Data Charter, 2018.

[14] Philippine Statistics Authority, Philippine Action Plan on the Inclusive Data Charter, 2018.

Limited harmonization and standardization of ethnicity definitions and variables compounds these challenges. The definition of ethnicity and the variables used to track it in the Philippines have evolved considerably over the years. In the 1903 census, for example, IPs and Moros were classified as tribes. In 1918, the census began classifying ethnic groups according to religion (e.g., Christian and non-Christian). From 1939 to 1990, identification of ethnicity was done by means of language used or dialect spoken. After the IPRA became law in 1997, the census resumed the approach it had abandoned nearly a century before: the classification of ethnicity according to tribal affiliation. Starting with the CPH 2000, most IP-specific data began to be collected through self-identification by ethnicity or by whether one belongs to an IP group or ICC. In the CPH 2010, the ethnicity variable was expanded to include self-identification by blood, and related attributes were added in the CPH 2020 – namely, a combination of descent, blood relation, consanguinity, and language used, or dialect spoken.[15] Ethnicity is based on descent while ethnolinguistic group is based on language. Thus, the census asserts that since ethnicity can be traced through bloodlines, it cannot be claimed by choice, adoption, or confirmation by any ethnic group.[16] This evolution in how ethnicity is classified – illustrated in Table 3, which shows how the census questions on ethnicity changed over time – complicates efforts to historically analyze and compare IP populations in the Philippines.

TABLE 3

ETHNICITY QUESTIONS USED IN CPH

Census Year	Ethnicity Questions Used in CPH
1903	Tribe
1918	Religion
1939	Is _____ able to speak _____ (specified dialects or language)?
1948	Enter mother tongue or native language or dialect, that is, language or dialect spoken at home in earliest childhood.
1960	What was the language or dialect spoken at home in his/her earliest childhood?
1970	What was the dialect or language spoken at home in his/her earliest childhood?
1980	What language/dialect is generally spoken in this household?
1990	What was dialect /language spoken at earliest childhood?
2000	How does_____classify himself/herself? Is he/she an Ibaloi, Kanakney, Mangyan, Manobo, Chinese, Ilocano, or what?
2010	What is _____ethnicity by blood? Is he/she a/an _____ ?
2020	What is _____'s ethnicity by descent/blood relation/consanguinity? Is he/she a/an _____? (Mention the predominant/ common indigenous peoples (IP) or non-IPs groups in the area.) What is the language/dialect generally spoken at home by the members of this household?

Source: Adapted from World Bank, 2017 with updated information from PSA for CPH 2020.

Beyond the census, few national household surveys attempt to track IPs. Most key national surveys in the Philippines do not include any ethnicity variables. Variables ack granularity and clarity, with a tendency for using overly generic ethnic groupings as well as proxies (e.g., assuming the population of certain locations are IPs), resulting in data inaccuracies and making it difficult to capture the diversity of IP groups. The absence of IP indicators in national surveys – particularly the Family Income and Expenditure Survey (FIES) and Labor Force Survey (LFS) – has been cited by the PSA as the key constraint to generating income and poverty data on IPs.[17]

[15] World Bank, Land: Territory, Domain, and Identity. World Bank, Washington, DC, 2017.
[16] IPRA defines eight ethnographic areas in the country: Region I and the Cordilleras; Region II; the rest of Luzon; Island Groups including Mindoro, Palawan, Romblon, Panay, and the rest of the Visayas; Northern and Western Mindanao; Southern and Eastern Mindanao; and Central Mindanao.

While the PSA has prioritized inclusive data collection, government progress towards this goal has slowed in recent years. For instance, FIES and LFS as well as the Annual Poverty Indicators Survey (APIS) and Family Health Survey (FHS) do not include any ethnicity variables – nor do several other major surveys (Table 4). Complicating matters further is the use of independent or uncoordinated methodologies in specialized surveys. In the Census of Agriculture and Fisheries (CAF), for example, IP status is determined using language variables (e.g., mother tongue) or land tenure status. Such lack of harmonization on how and what IP data should be collected prevents more robust and comparative analysis on IPs over time and geography. This reflects a broader global trend of insufficient and/or unsystematic IP data collection, with far-reaching implications for public policy. To partially close the data gaps on IPs, the World Bank financed the first of its kind IP HH Survey in 2023.[18] This survey integrates a comprehensive list of topics that can help enhance future research and analysis efforts concerning IPs in the Philippines. (See Annex C for IP HH Survey details).

TABLE 4

CENSUS AND SURVEYS WITH VARIABLES ON ETHNICITY/IP STATUS, 2022

Censuses / Surveys	Variables
Census of Population and Housing (CPH)	(Ethnicity; Language, Religion)
Annual Poverty Indicators Survey (APIS)	None
Family Income and Expenditure Survey (FIES)	None
Labor Force Survey (LFS)	None
Survey on Children (SOC)	None
Functional Literacy, Education, and Mass Media Survey	None
National Demographic and Health Survey (NDHS)	(Ethnicity; Language)
Family Health Survey (FHS)	None
Family Planning Survey (FPS)	None
Maternal and Child Health Survey (MCHS)	None
Census of Agriculture and Fisheries (CAF)	(Language, Tenure)
Agricultural Rate Wage Survey (ARWS)	None
National Nutrition Survey (NNS)	Ethnicity (IP/not IP)
World Bank, Indigenous Peoples HH (IP HH)	Ethnicity, Language, others

Sources:World Bank based on survey questionnaires from PSA Data Archive; (http://psada.psa.gov.ph/index.php/home), accessed on August 1, 2022.

Similarly, only a few departments consistently and systematically track ethnicity variables. When disaggregated ethnicity data is collected, there is a lack of consistency across departments in terms of key definitions and ethnic group categories. With only NCIP having a mandate to lead, monitor, and harmonize IP data collection and tracking, the limited efforts that do exist are uncoordinated and reliant on volatile funding sources. Table 5 shows a list of IP-specific variables used in key government institutions, including self-identification, bloodline, location, language, and observer identification.

The Department of Social Welfare and Development (DSWD) tracks support provided to IPs through its social safety net programs. DSWD's ethnicity variables include self-identification at the household level, type of ethnicity or ethnic group, and location, in some cases by observer identification. Although there is room for improvement in the way DSWD monitors IP beneficiaries across multiple programs, particularly standardizing how ethnicity questions are introduced in monitoring and evaluation systems, these efforts have served to improve and expand specific IP-targeting schemes, such as the Modified Conditional Cash Transfer Program for Indigenous Peoples in Geographically Isolated and Disadvantaged Areas (GIDAs) and the Pantawid Pamilya Indigenous Peoples Framework (PPIPF).

[17] Paredes O, Indigenous Peoples: Between Rights Protection and Development Aggression, 2018.

[18] World Bank. Indigenous Peoples Household Survey, 2023.

The Indigenous Peoples Lens has also been developed to guide field implementation and engagement for Kalahi-CIDSS program (see Box 2). The IP HH Survey shows that a significant number of IPs are aware of government social assistance and have household members actively participating in them, indicating the extensive reach of these programs. Among social safety nets and other social assistance programs, the Pantawid Pamilyang Pilipino Program (4Ps) program is the most known, with nearly 90 percent of IPs aware of the program. It is also the most utilized, with 30 percent of IPs indicating that they have received assistance from the program. However, when asked about specific conditionalities, more than half of IP beneficiaries are not aware of the program's conditionalities.

Another example with potential for systematically addressing vulnerabilities is the Department of Health (DOH), which has developed strategies to reduce health inequities by classifying Geographically Isolated and Disadvantaged Areas (GIDAs) – but more work needs to be done. GIDAs was a territorial strategy established by DOH to identify areas in the country where universal health access is difficult to achieve due to physical and socioeconomic limitations.[19] By 2023, DOH has identified 7063 GIDAs in the country.[20] While the GIDAs strategy recognizes the need to focus on vulnerable and hard-to-reach areas, the number of GIDAs has increased rather than decreased over time, indicating limitations in the methodology. Nonetheless, GIDAs illustrate how improving the quality and disaggregation of ethnicity data can positively impact targeting mechanisms to improve access to health services for IPs.[21] One of the key criteria for defining a GIDA barangay is an IP population share of at least 10 percent.[22] Geospatial analysis overlaying the 2020 IP population with the GIDAs identified in 2022 shows that approximately 37 percent of the country's IP population, or about 2.9 million IPs, lives in GIDAs (Figure 10). While GIDAs represent an important territorial health approach, the health sector still has limitations related to measuring IPs' access to health services. Currently, for example, ethnicity and IP data in the health sector are only available through the National Nutrition and Demographic Health Surveys. To help address these gaps, a recent DOH study of COVID-19 vaccination coverage among IPs recommended that ethnicity- and IP-tagging in health-related data and materials is needed to monitor the status of service delivery to IP populations.[23]

[19] GIDAs are defined by DOH as communities with marginalized populations that are physically and socioeconomically separated from mainstream society. This can be due to physical factors such as distance, weather conditions, or transportation difficulties (i.e., locations that are islands, uplands, lowlands, landlocked, hard-to-reach, and/or unserved or underserved communities), or to socioeconomic factors like high poverty incidence, the presence of vulnerability factors, or where communities are in or recovering from situations of crisis or armed conflict. Information about GIDAs is revised every three years, but the data is collected from Local Government Units (LGUs) without relying on national statistics (such as CPH and other sources of information) for consistency and without requiring means of verification from LGUs. GIDAs are eligible for potential benefits, such as additional interventions or prioritization in the selection of national programs.

[20] Recent GIDA totals: 4,317 by 2020; 4,363 by 2021; and 6,463 by 2022. DOH GIDA Information System.

[21] GIDA classification includes physical factors, for example: at least 25 percent of sitios should have no access to a Rural Health Unit or hospital within 60 minutes of travel using any form of transport, including walking. Classification also includes socioeconomic factors, for example: at least 10 percent of the location's population should be IPs and at least 50 percent should be enrolled in the DSWD's 4Ps program.

[22] DOH Administrative Order 2020-0023 (Guidelines on Identifying GIDA and Strengthening their Health Systems), Chapter VI.

[23] Department of Health. Technical Assistance for Conducting a Mixed-Methods Longitudinal Prospective Study (Household Surveys) on Indigenous Cultural Communities/Indigenous Peoples Vaccination Coverage through the Philippines Covid-19 Emergency Response Project (PCERP). November 2023.

TABLE 5

EXAMPLES OF NATIONAL SURVEYS/ADMINISTRATIVE DATA WITH IP-SPECIFIC VARIABLES

Data Source	Ethnicity variable	Other IPs related variables
HEALTH /NUTRITION		
Nutritional status of households (2018-2020 Expanded National Nutrition Survey [NNS] by Department of Science and Technology-Food and Nutrition Research Institute [DOST-FNRI])	Ethnicity: (0 - Not an IP/No foreign blood; 1 - IP; 2 - with foreign blood)	
Fertility, family planning and health of women (2017 National Demographic Health Survey by PSA)	**What is your ethnicity by blood? Are you Tagalog, Aeta, Badjao, Waray or what?** (1 - Tagalog; 2 - Cebuano; 3 - Ilokano; 4 - Ilongo; 5 - Bikolano; 6 - Kapampangan; 7 - Maranao; 8 - Tausog; 9 - Other [Specify])	Local language of respondent: (N: 1 - English; 2 - Tagalog; 3 - Ilocano; 4 - Bikol; 5 - Waray; 6 - Hiligaynon; 7 - Cebuano)
Population health profile in GIDA (2018 GIDA Community Profiling Tool)	**Is there an ICC/IP in the barangay?** (Y/N); major ethnolinguistic group/s: (Y/N. If yes, specify all)	
COVID-19 Vaccination Coverage (2022 Household survey commissioned by DOH through the Philippines COVID-19 Emergency Response Project funded by the World Bank)	**Are you a member of an indigenous group?** (1 - Yes; 2 - No. If yes, specify:)	Common Language used: _____
EDUCATION		
Learners enrolled in schools (2021 Modified learner enrollment and survey form, Learner Information System under Department of Education)	**Belonging to IP Community/ ICC:** (Y/N. If yes, specify:)	Mother Tongue: _____
Out-of-school youth and adult learners enrolled in Alternative Learning System (ALS) (Modified ALS Enrolment form, Learner Information System under DepEd)	IP: (Specify ethnic group)	Mother Tongue: _____
Public elementary schools, junior high schools and senior high schools with IP learners and sited on Ancestral Domain/Land (SY2017-2018 Government School Profile Form, Enhanced Basic Education Information System [EBEIS], under Department of Education)	IP Learners (in Numbers.)	School site ownership and/or proof of occupancy: Within Ancestral Domain/Land: With Usufruct Agreement? (Y/N) Certificate of Ancestral Domain Title/ Certificate of Ancestral Land Title (CADT/CALT) (Y/N)
SOCIAL PROTECTION		
Households in the Listahanan (2019 Households Assessment under Listahanan) (National Household Targeting System for Poverty Reduction).	**Do you consider your household as part of an IP group?** 1 - Yes; 2 - No. If yes, specify:)	
Holders of Disaster Assistance Family Access Card (DAFAC) (2021 DAFAC form, DSWD)	[___] IP- Type of Ethnicity: _____	
Holders of Social Amelioration Card (SAC) (2020 Social Amelioration Card, DSWD)	[__] Katutubo (Grupo) / IP Group _____	
Beneficiaries of KALAHI-CIDSS National Community-Driven Development Project (NCDDP) (Barangay Profile Form as of 2016, DSWSD)	**Are there IPs in your barangay?** (Y/N) IP Group: _____	
Beneficiaries of the Pantawid Pamilyang Pilipino Program (4Ps) (2015 Household Assessment and Beneficiary Update Form for 4Ps, DSWD)	**Do you consider your household as part of an IP Group?** (Y/N) Does the household (have) a member of IP group? (Y/N) Name of Tribal Affiliation/Group:_____	

TABLE 5

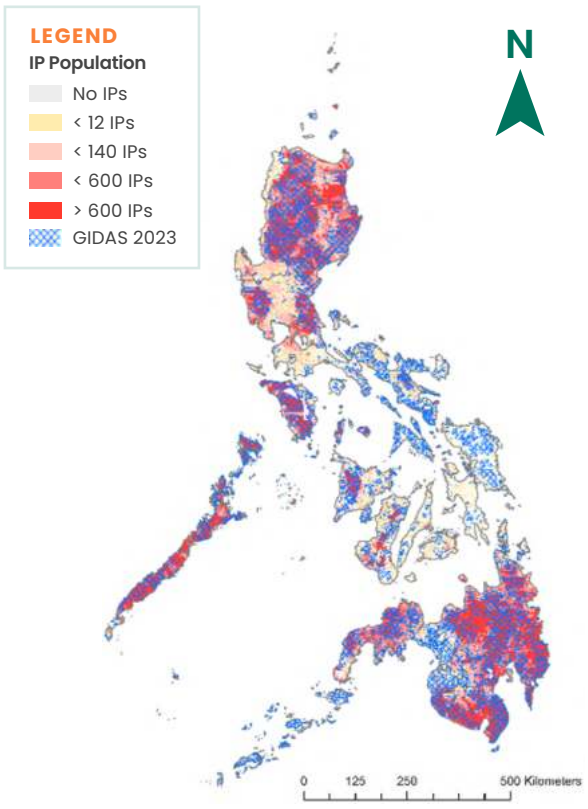
EXAMPLES OF NATIONAL SURVEYS/ADMINISTRATIVE DATA WITH IP-SPECIFIC VARIABLES

Data Source	Ethnicity variable	Other IPs related variables
AGRICULTURE		
Beneficiaries of Comprehensive Agrarian Reform Program Extension with Reforms (CARPER) (CARPER Profiling Form, Department of Agrarian Reform)	Indigenous Cultural Community Group: _____	
Registered beneficiaries eligible for agri-fishery related government services (2021 Registry System for Basic Sectors in Agriculture (RSBSA) Enrolment Form, Department of Agriculture)	Member of Indigenous Group? (Y/N, if Yes, specify)	
Socioeconomic Information on ADs (2021 Preliminary Socioeconomic Information (PSI) Profiles Survey of AD, Department of Agriculture through the Mindanao Inclusive Agriculture Development Project funded by the World Bank)	IP group: _____ IP Rights Holders (no.) IP population (no.)	
Tenure status of parcel (main use of parcel etc.) (2012 Census of Agriculture and Fisheries, PSA)		What is the tenure status of the parcel? Some categories include Held under Certificate of Land Transfer (CLT) or Certificate of Land Ownership Award (CLOA) Held under CADT/CAL

Source: World Bank IP Data Inventory, 2023.

FIGURE 10

IP POPULATION OVERLAPPING WITH GIDAs, 2023



Region	No. of GIDAs	IPs in GIDAs	Total IPs	IP % in GIDAs
BICOL REGION	1,126	73,478	121,622	60%
DAVAO REGION	438	596,897	1,147,104	52%
MIMAROPA	445	383,732	798,278	48%
WESTERN VISAYAS	650	123,506	258,515	48%
SOCCSKSARGEN	294	303,405	693,173	44%
BARMM	954	6,119	14,467	42%
CAR	471	468,938	1,237,500	38%
ZAMBOANDA PENINSULA	523	237,270	638,641	37%
ILOCOS REGION	161	83,422	245,623	34%
CARAGA	281	184,909	544,501	34%
CENTRAL LUZON	167	70,698	211,240	33%
NORTHERN MINDANAO	406	253,113	856,343	30%
CENTRAL VISAYAS	212	16,261	58,986	28%
CAGAYAN VALLEY	288	183,838	1,080,959	17%
CALABARZON	220	11,968	130,787	9%
EASTERN VISAYAS	427	193	6,069	3%
NCR			167,953	0%
TOTAL	**7,063**	**2,977,747**	**8,211,761**	**37%**

Source: WB and NCIP Database and Portal based on CPH 2020.

Another important challenge is the use of generic ethnic groups, locations, and regions as proxies in administrative data, which also muddles IP statistics over time. A generic grouping is a subpopulation group within a larger ethnic category. For example, Filipino, Japanese, or Chinese are generic groupings within the Asian ethnic category. In the Philippines, groups like the Igorot, Cordilleran, Lumad, and Bangsamoro are common generic groupings that contain multiple IP groups. Table 6 shows the IP groups that fall under these four example generic groupings in the CPH. Lumad is a particularly large generic grouping, containing roughly eighteen IP groups originally from the southern island of Mindanao.[24] Notably, the generic groupings contain in some cases both IP and non-IP groups. Likewise, while some generic groupings are not necessarily IP groups, some IP communities have adopted the grouping name to identify themselves. For example, the Kankanaey – the fourth largest IP group in the country, who live in the Cordillera Mountain Range in Luzon – often identify themselves as Igorot (which could include both IP and non-IP groups) but are also often part of the generic grouping Cordilleran. In some cases, particularly in administrative data, locations and regions are often used as proxies for IPs, which can result in data inaccuracies. For example, non-IP groups such as the Ilocano, Tagalog, and Maguindanao are often mixed with IP groups due to their presence in certain regions.[25]

TABLE 6

EXAMPLES OF GENERIC ETHNIC GROUPS FOR CPH 2020

Igorot	Cordilleran	Lumad	Bangsa Moro
Kankanaey Ibaloy Bontoc Applai Kadaklan Balangao Boliwon Majokayong Karao Iwak	Kananaey Ibaloy Ifugao Kalinga Bontok Tingguian/Itneg Isneg/Isnag/Apayao Ilocano Tagalog and non-IPs living in the Cordillera Administrative Region	Atta B'laan Banwaon Bagobo Bukidnon Dibabawon Higaonon Mamanwa Mandaya Mangauangan Manobo Mansaka Subanen Tagakaolo Talaandig Teduray T'boli Ubo (and others)	Maranao Tausog Maguindanao Iranon

Source: Based on NCIP-PSA Resolution Approving Ethnicity Variables for CPH 2020.

Given these issues, IPs remain mostly hidden in national statistics. The complications associated with collecting and analyzing disaggregated IP data in a systematic, coordinated, and harmonized manner across government agencies and national surveys effectively hides the existence and diversity of IPs and other ethnic minorities. On a basic level, this prevents more robust and comparative economic, social, cultural, and political analysis of IPs over time and geography. This in turn leads to suboptimal and often adverse policy outcomes for IPs, given that they are typically the most vulnerable and voiceless groups in society and require more nuanced and targeted interventions than the general population. Standardizing and disaggregating ethnic-specific variables in official statistics is critical for giving IPs the recognition and visibility they deserve, as well as for improving targeting mechanisms for the country's social assistance, efficient service delivery, and poverty reduction strategies.

[24] Paredes, O. Indigenous Peoples: Between Rights Protection and Development Aggression, 2018.

[25] IPRA defines eight ethnographic areas in the country: Region I and the Cordilleras; Region II; the rest of Luzon; Island Groups including Mindoro, Palawan, Romblon, Panay, and the rest of the Visayas; Northern and Western Mindanao; Southern and Eastern Mindanao; and Central Mindanao.

Generic ethnic groupings in the BARMM illustrate the complexity of navigating these challenges in data collection and harmonization. The archipelago's Muslim ethnic groups have embraced the use of Moro or Muslim to identify themselves based on their historical association and profession of Islam. As an ethnic category, however, Moro comprises about 13 distinct ethnolinguistic groups, including some groups that can be defined as both IP and Muslim. (See Annex A, Tables A2 and A3.) While some Moros and members of Muslim ethnic groups tend not to call themselves IPs, others identify as IP & Muslim ethnic group members. Thus, the definition of who is and is not an IP in the BARMM is fluid. According to the NCIP, IP-Muslim ethnic groups are those who embrace the Islamic faith while continuing to practice their own IP cultures and traditions. Given the region's historical context and identity politics, calling oneself Muslim/Moro and/or IP also overlaps with issues related to historic recognition, land rights, conflict, and identity. Although most IP groups in the BARMM are small, there are many of them; CPH 2020 identified population belonging to 157 different IP groups in the region.

Moreover, population statistics on IP groups and ethnic minorities continue to evolve and improve over time. For instance, CPH data has exhibited a dramatic increase in its number of ethnic classifications, from 147 in 2000 and 180 in 2010 to 268 in 2020. Of those 268 ethnic groups in the CPH 2020 (excluding foreigners), 228 were identified as IP groups and 12 as IP & Muslim ethnic groups. Considering all the challenges highlighted above, this gradual increase in the number of ethnic groups shows that the national census is becoming more accurate and inclusive over time.

CONCLUSION

The gaps, inconsistencies, and lack of coordination in IP data collection represents a major barrier towards recognizing IPs and ethnic minorities in the Philippines. The institutional context, complications in collecting and analyzing disaggregated IP data, and lack of standardized ethnicity variables in statistical databases, analytical tools, and reports ultimately hides the country's most vulnerable populations from official view. This ultimately obscures and overlooks the complexity and diversity of IP populations in the Philippines and has significant implications for how the development challenges facing IPs are tackled. A coordinated effort involving all the key stakeholders – including PSA, NCIP, NCMF, relevant departments, and LGUs – is needed to ensure that ethnicity data is collected more consistently and systematically following standardized methodologies.

Agencies and organizations focused on IP issues in the Philippines should recognize the importance of strengthening IP data collection efforts. Stronger efforts to systematically collect and harmonize IP data – incorporating new criteria with the active and effective participation of IPs to accurately capture factors like identity and socioeconomic conditions[26] – would offer a range of important benefits for the country's IP communities and their advocates. Better IP data would enable policymakers to tailor government efforts to address the unique needs of IP communities, given that their family and social patterns often vary significantly from the rest of the population. It would also help ensure that the specific needs of IPs are not subsumed in countrywide response strategies, given that IP groups often require.[27] Likewise, such efforts would consider the need for remedial efforts to address persistent inequalities of opportunity, given that the circumstances faced by IPs (e.g., limited access to mainstream language, remote locations, and lack of resources) often weaken their voice and agency.

[26] United Nations, Data Collection and Disaggregation for Indigenous Peoples. Accessed on 25 May 2023.
[27] Power T, Wilson D, Best O, Brockie T, Bourque Bearskin L, Millender E, Lowe J, COVID-19 and Indigenous Peoples: 'An imperative for action.' Journal of Clinical Nursing, 29 (15-16), 2737–2741, 2020.

An agenda to strengthen IP data collection starts with addressing the need to provide standardized guidelines to harmonize ethnic variables across government agencies. It is especially important to provide clear guidance on what and how data on IPs and ethnic minorities should be collected. International guidelines, such as from the United Nations, recommend that such data collection efforts include questions on IP identity that respect the principle of self-identification. At an operational level, while there is no single right way to identify race and ethnicity, it is important to prioritize self-identification and only use observer identification or location in cases where self-identification is not possible. In line with globally recognized IP rights, good practice for IP data collection should also follow the principle of free, prior, and informed consent (FPIC) and should be conducted in local IP languages. This underscores the need to dedicate resources and build capacity among IP communities so that IPs can participate as equal partners in all stages of data collection (e.g., planning, implementation, analysis and dissemination, and access to their own information and data) to ensure that such efforts respond to IP communities' own priorities and aims.[26] Ultimately, stronger IP data collection efforts will also support more robust and comparative economic, social, cultural, and political analyses of IP issues across time and geography. Such analysis will, in turn, bolster future efforts to establish and improve the government's targeting mechanisms for social assistance, service delivery, and poverty reduction – hopefully benefiting IPs in a manner more distinctive and strategic than ever before.

Concrete policy and operational steps can help achieve these goals. Efforts are needed to continue building consensus among PSA, NCIP, NCMF, and different government levels, such as the Ministry of Indigenous Peoples Affairs (MIPA) of the BARMM government, to guide other government agencies and LGUs on ways to introduce ethnic variables in their respective sectors. When technically and financially feasible, it is critical to begin introducing standard ethnicity variables on every official data collection effort, including national and sectoral surveys, administrative data, monitoring and evaluation systems, and projects and studies. These efforts should utilize ethnicity questions that are aligned to census data and that follow PSA and NCIP guidelines by categorizing ethnicity according to regional and local populations. At the sectoral level, government agencies should update and retrofit information systems to capture ethnic variables – particularly for beneficiaries of government programs – to improve targeting and performance outcomes.

[28] United Nations, Data Collection and Disaggregation for Indigenous Peoples, https://www.un.org/development/desa/indigenouspeoples/mandated-areas1/data-and-indicators.html. Accessed on 25 May 2023.

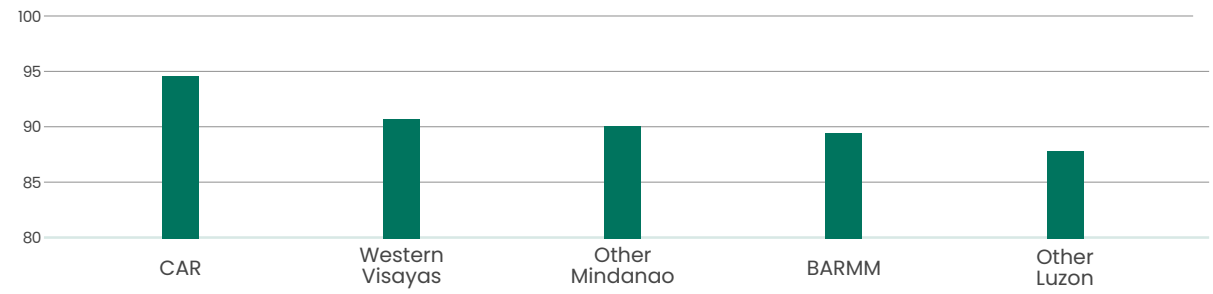
BOX 2

DSWD's INDIGENOUS PEOPLES LENS

Across the Philippine government, the DSWD is an exception when it comes to efforts to integrate IPs in its statistics and programs. Throughout its implementation of 4Ps and National Community-Driven Development Program (NCDDP) – also known as Kalahi-CIDSS – DSWD has integrated multiple ethnicity variables to track support to IPs in the country. These ethnicity variables include self-identification at the household level, type of ethnicity or ethnic group, and location, in some cases by observer identification (see Table 6 above). Under the umbrella of these two leading social protection programs, DSWD has developed IP-specific targeting schemes such as the Modified Conditional Cash Transfer (MCCT) program for IPs in GIDAs. Accordingly, DSWD formulated its PPIPF and Indigenous Peoples Lens to guide field implementation and engagement for Kalahi. In part due to these efforts, a significant number of IPs are aware of government social assistance and have household members actively participating in them, indicating the programs' extensive reach. Among social safety nets and other social assistance programs, the 4Ps program is the most well-known, with nearly 90 percent of IPs aware of it. 4Ps is also the most utilized program, with 30 percent of IPs indicating receiving assistance from it. However, when asked about specific conditionalities, over half of IP beneficiaries are not aware the program's conditionalities.

FIGURE 2a

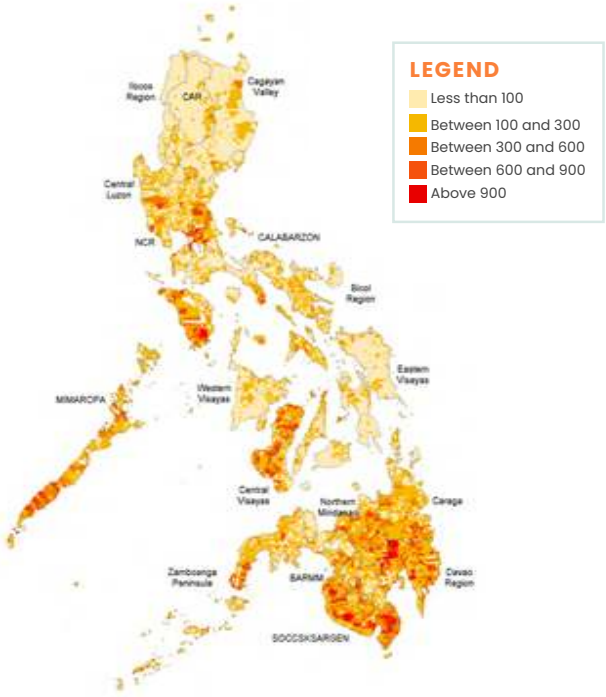
AWARENESS OF THE 4Ps PROGRAM



Source: World Bank IP HH Survey 2023.

FIGURE 2b

REGIONAL DISTRIBUTION OF 4Ps IP HOUSEHOLDS, 2021



Source: DSWD. Monthly Report 4Ps Program. April 2021.

In terms of access to basic services, DSWD has studied the ethnic barriers faced by IPs. The intersectionality of ethnicity, gender, and place of residence was the focus of a 2017 assessment of DSWD safety net programs. Conducted by the University of the Philippines, the study analyzed adjustments to the MCCT program to accommodate the specific circumstances of IPs living in GIDAs. Cultural beliefs about Western medicine and immunization were identified as major reasons for non-compliance with the program's conditions.

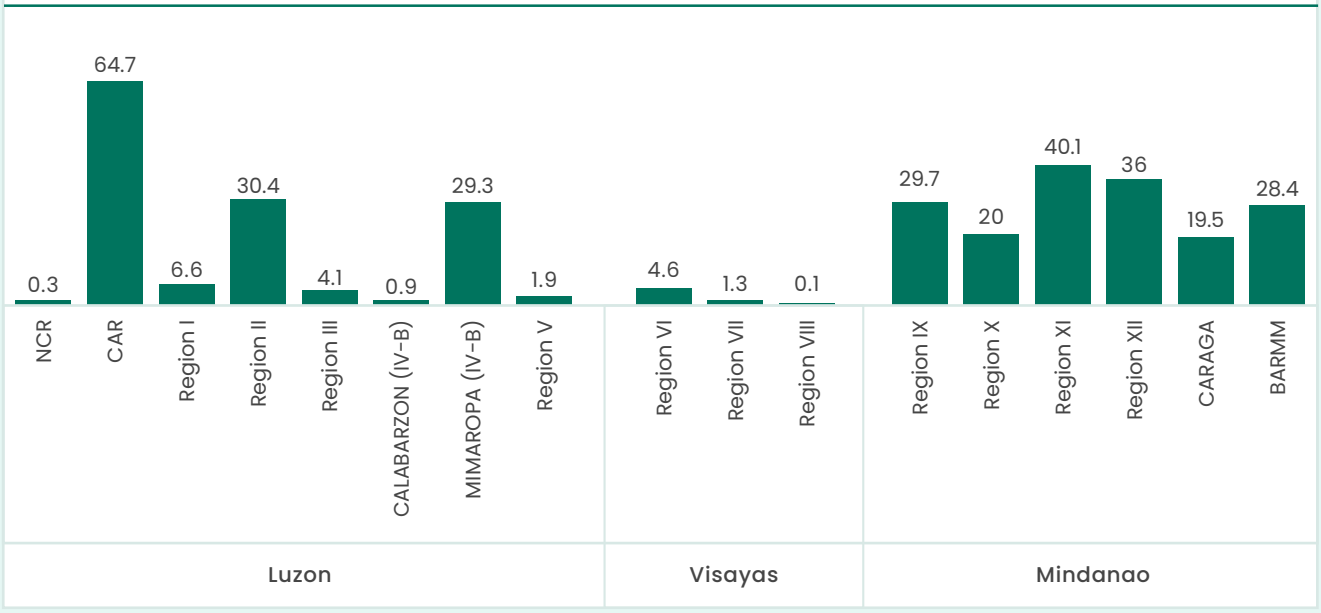
IP women expressed that certain health practices, like drinking cold water or taking a cold bath soon after giving birth, were contrary to their beliefs. IPs' physical distance to health and education centers was also a major barrier to successful program delivery. This underscores that cultural determinants of health must be captured, recognized, and built into health policy, practice, and research to improve the well-being of IPs.

Figure 2b illustrates the geographic concentration of IP beneficiaries of the 4Ps program as of 2021. Out of the program's 4.3 million beneficiary households, 644,770 (15.2 percent of the country's total beneficiaries) were IPs. In terms of regional distribution, 462,803 households (71.8 percent of all IP beneficiaries) came from Mindanao, 162,916 (25.3 percent) from Luzon, and 19,051 (3.0 percent) from the Visayas. In Mindanao, BARMM had the highest number of IP beneficiaries, with 108,508 IP households (16.8 percent of all IP beneficiaries), followed by Region XI with 103,567 IP households (16.1 percent) and Region IX with 85,505 IP households (13.3 percent). Nationwide, GIDAs have 169,308 IPs household beneficiaries (4.0 percent), mostly in Mindanao and particularly BARMM (29,422 IP household beneficiaries from GIDAs), Region XI (27,219 households), and Region IX (21,998 households).

Figure 2c shows the share of IP household beneficiaries of the 4Ps by region. CAR has the highest share, with 64.7 percent of IP households in the region receiving 4Ps benefits, while Region VIII has the lowest share at (0.1 percent). Table B2a shows the top 10 IP groups in terms of number of 4Ps beneficiaries. The group with the largest number of members receiving 4Ps benefits was the Tingguian-Itneg (53,526 households or 8.3 percent of all IP household beneficiaries), followed by the Subanon (7.6 percent), Manobo (7.1 percent), Yakan (5.2 percent), Sama (5.1 percent), Maguindanaon (3.8 percent), Iraya (2.9 percent), B'laan (2.8 percent), Cimmaron (2.2 percent), and Higaonon (2.1 percent). The remaining 52.9 percent comprises at least 171 other IP groups. While the 4Ps database is a rich source of information, more research is needed to analyze the information at local levels and using CPH 2020 data. For example, the Tingguian-Itneg group has the largest number of members receiving 4Ps benefits despite not being among the largest IP groups in terms of population. Likewise, while Region XI (Davao) and CAR have similarly sized IP populations (1.1 million and 1.2 million, respectively), CAR has many more IP beneficiary households than Davao.

FIGURE 2c

PROPORTION OF IP HOUSEHOLDS IN THE 4Ps PROGRAM BY REGION, 2021



Source: DSWD. Monthly Report 4Ps Program. April 2021.

TABLE 2a

TOP TEN IP GROUPS BY NUMBER OF HOUSEHOLDS PARTICIPATING IN THE 4Ps PROGRAM, 2021

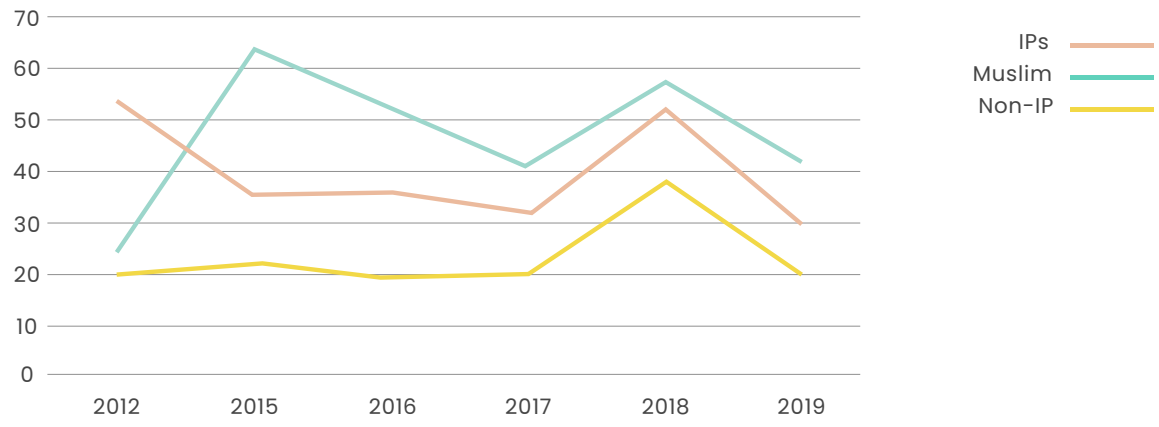
IP Group	No of IP HHs	Share to total IP Pantawid HHs
Tingguian-Itneg	53,526	8.30%
Subanon	48,959	7.59%
Manobo	45,527	7.06%
Yakan	33,664	5.22%
Sama	32,986	5.12%
Maguindanaon	24,297	3.77%
Iaraya	18,881	2.93%
B'laan	18,269	2.83%
Cimmaron	13,990	2.17%
Higaonon	13,804	2.14%
Others	340,867	52.87%

Source: DSWD. Monthly Report 4Ps Program. April 2021.

A larger proportion of IP and Muslim families benefit from cash transfers than non-IPs. Since 2012, SWS surveys asked whether households (i) were aware of the 4Ps program and (ii) had been selected to receive 4Ps benefits. In the first year of the survey, about 76 percent of Muslims and more than 66 percent of IPs and non-IPs reported having heard about 4Ps, and in the years that followed, these proportions increased to more than 90 percent. The share of IP and Muslim families who reported actually being selected to receive 4Ps benefits, however, has been more uneven (see Figure 2d). For instance, this proportion seems to have increased in 2018 before declining the year later across all ethnic groups. In 2019, 43 percent of Muslim tribe families, 29 percent of IP families, and 19 percent of non-IP families reported being selected to receive 4Ps.

FIGURE 2d

HOUSEHOLDS TO RECEIVE CASH TRANSFERS BY ETHNIC GROUPS, 2012-2019, PERCENT



Source: SWS 2012-2019.

CHAPTER 2

Poverty and living conditions

CHAPTER 2

POVERTY AND LIVING CONDITIONS

Poverty and living conditions of Indigenous Peoples (IPs) around the world vary significantly based on factors such as historical context, location, government policies, land tenure security, and especially access to resources and basic services. However, IPs and ethnic minorities face a range of common trends and challenges, such as disproportionately high poverty rates (even in advanced economies), poor living conditions, and limited access to basic services. While the connection between ethnicity and inequality in the Philippines has not been properly studied, there is a growing recognition of its importance in the country's development agenda.

The notion of poverty among IPs is often more nuanced, focused not solely on material wealth but also communal well-being and the sharing of resources. In many IP communities around the world, wealth and poverty are viewed in a communal context rather than focused on individual accumulation. The ability to share resources within the community is often a central aspect of IPs' economic and social systems. For example, land is seen not just as a commodity but also as a fundamental aspect of identity, culture, and subsistence. For this reason, poverty is deeply linked to the loss of ancestral lands, which disrupts traditional ways of life and livelihoods while also reducing income, resources, and access to basic services. As seen in Chapter 1, the Philippines is home to a diverse range of IP cultures, each with its own traditions, values, and economic systems. This means that definitions and experiences of poverty vary significantly among the country's IP groups, shaped by regional factors such as geographical location, and local resources and conditions. IP communities in remote mountainous areas, for instance, might have different challenges compared to those in coastal regions or those who have suffered the impacts of violence and conflict in their regions.

This chapter presents a comprehensive analysis of the main factors affecting the living conditions of IPs and Muslim ethnic groups[29], combining census and survey data. The chapter, like others in this report, relies on three sources of data: a) Census of Population and Housing (CPH) 2020; b) Social Weather Stations (SWS) surveys; and c) Indigenous Peoples Household Survey (IP HH Survey) 2023.[30] While CPH 2020 offers an accurate assessment of the number and distribution of ethnic groups in the Philippines and a better understanding of their living conditions, several gaps remain – as will be discussed. As such, the CPH analysis is complemented by information from the SWS surveys on self-rated poverty, hunger, and quality of life. Unlike most census databases, the CPH 2020 does not include information on monetary welfare indicators (i.e., income, consumption) to assess the incidence of monetary poverty, so the analysis here examines basic non-monetary measures of well-being that are important for IPs' own assessments of their well-being.

The chapter also uses data from the newly conducted IP HH Survey to partially address the gaps in understanding about the inequalities faced by IPs in the Philippines. This survey provides a more in-depth assessment of the disparities between IP and non-IP groups, offering insights into factors like poverty, nutrition, exposure to shocks, access to finance and social services, displacement and migration, discrimination, conflicts, human rights, and social cohesion. While this survey will not bridge all data gaps, it serves as a complementary source of information, enhancing the analysis and providing a more nuanced understanding of the potential inequalities experienced by IPs. (See Annex C for IP HH Survey details).

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[29] For reader-friendliness, the term "IP and Muslim ethnic groups", except when otherwise differentiated, refers to all three gropus: IPs, IPs & Muslim ethnic groups, and Muslim ethnic groups.

[30] For clarity of the report, data and analysis using CPH 2020 is presented following the four salient ethnic groups defined in Chapter 1: *1) IPs; 2) IP Muslims (both IP and Muslim); 3) Muslim ethnic groups; and 4) non-IPs (non-IP and non-Muslim). SWS surveys follow similar classification as in CPH 2020, however, given sample size constraints, data and analysis is presented following three groups 1) IPs; 2) Muslim ethnic group/Muslim Tribes; and 3) non-Indigenous and non-Muslim (non-IPs). IPs HH Survey's data and analysis is only presented following two groups: 1) IPs; and 2) non-Indigenous and non-Muslim (non-IPs).*

Literature and research from the Philippines on IPs and other ethnic minorities in the context of poverty and inequality is limited. A study by the Asian Development Bank (ADB) in 2002 found that while there is divergence in IP groups' definitions of poverty, there are common markers of poverty such as not having land, lacking income and equipment, and lacking access to basic services such as health and education.[31] A more recent study found that three out of every four IPs belong to the national population's poorest quintile, and the prevalence of poverty among IPs is particularly high in Mindanao.[32] Two other recent studies in 2017 and 2019 used data from CPH 2000 and CPH 2010 and found significant inequalities in education and access to basic public services between three main ethnic groups: Muslims, non-Muslim IPs, and non-Muslim/non-IPs.[33]
Their analysis showed that Muslims, followed by IPs, lagged in terms of education and access to basic services, but that their situation varies by region – with those in Mindanao faring worse than those in Luzon and Visayas.[34]

The available evidence shows that IPs and Muslims face gaps in access to education. These studies found that both literacy and years of schooling increased between 2000 and 2010 among Muslim and IP groups, but the gap in years of schooling relative to non-Muslims/non-IPs remained large. Notably, secondary school completion rates are considerably lower among these groups. While primary schools are often present across barangays, IPs tend to travel long distances to access secondary schools, incurring additional costs in the process.[35] The studies further note that conflict is often a primary cause of displacement that impedes access to education, particularly in Mindanao.

IP and Muslim students also face specific factors that negatively affect their ability to learn while in school. Reyes (2016) found that IP students face bullying from fellow students as well as education professionals, which affects their confidence and willingness to speak in class.[36] In 2012, the Philippines transitioned to Mother Tongue-Based Multilingual Education (MTB-MLE), which considers students' vernacular languages. This change followed a significant body of evidence showing that children are better able to acquire foundational reading skills in a familiar language. However, significant challenges have emerged in the policy's implementation, including mismatches between teachers' language fluency and the language of instruction, lack of teaching materials for subjects that were previously taught in English, and inadequate teaching training in MTB-MLE pedagogy.[37]

Health outcomes are affected by disparities in access to health professionals and health centers. A survey among IPs in the former Autonomous Region in Muslim Mindanao (ARMM) reveals that most respondents accessed medical services through government health facilities, particularly barangay health centers, yet the use of these facilities remains low. Many respondents noted that they rely on traditional healers, while some do not seek help from medical professionals at all.[38] This further aggravates existing nutritional challenges. A study on the diets of IP children, for example, revealed that their food intake is nutritionally inadequate, with low levels of energy, macronutrients, and vitamins.[39]

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[31] Asian Development Bank. Indigenous Peoples/Ethnic Minorities and Poverty Reduction. 2002

[32] Legal Rights and Natural Resources Center. 2022. *State of Indigenous Peoples Address: 2022 Report*. Legal Rights and Natural Resources Center: Philippines, pp. 3-7.

[33] Reyes et al. (2017) categorizes smaller ethnolinguistic groups into three major groups: 1) non-Muslim IPs; 2) non-Muslim/non-IPs; and 3) Muslim ethnic groups, which contain 2 subgroups: Muslim IPs and Muslim non-IPs. Muslims are grouped based on self-reported religion in the CPH. Source: Reyes C, Mina C, Asis R, Inequality of Opportunities Among Ethnic Groups in the Philippines, PIDS Discussion Paper Series No. 2017-42, 2017.

[34] The references are: (i) Reyes C, Mina C, Asis R, Inequality of Opportunities Among Ethnic Groups in the Philippines, PIDS Discussion Paper Series No. 2017-42, 2017; (ii) McDoom O S, Reyes C, Mina C, Asis R, Inequality Between Whom? Patterns, Trends, and Implications of Horizontal Inequality in the Philippines, Social Indicators Research, 145:923–942, 2019.

[35] Eduardo J, Gabriel A, Indigenous peoples and the right to education: The Dumagat experience in the provinces of Nueva Ecija and Aurora, in the Philippines, SAGE Open, 11(2), 2021.

[36] Reyes C, A Bullying Experienced among Indigenous People Students of Philippine Normal University North Luzon, Philippines: A Basis for Formulating School Policy. *American International Journal of Contemporary Research Vol. 6, No.1.*

[37] Brunette T, Punjabi M, Pouezevara S, Cummiskey C, Reading achievement in the Philippines: The role of language complexity, USAID, 2019.

[38] IPDEV, The Indigenous Peoples of Mainland ARMM, 2014.

[39] Ricalde R, Libranza A, Alviola P, Sarmiento J, Obsioma V, Limpoco M, Laorden N, Diet Constraints of Indigenous Children in Conflict and Non-conflict Areas of Davao del Norte, Philippines, Journal of Economics, Management and Agricultural Development, Vol.4, No.1, 2018.

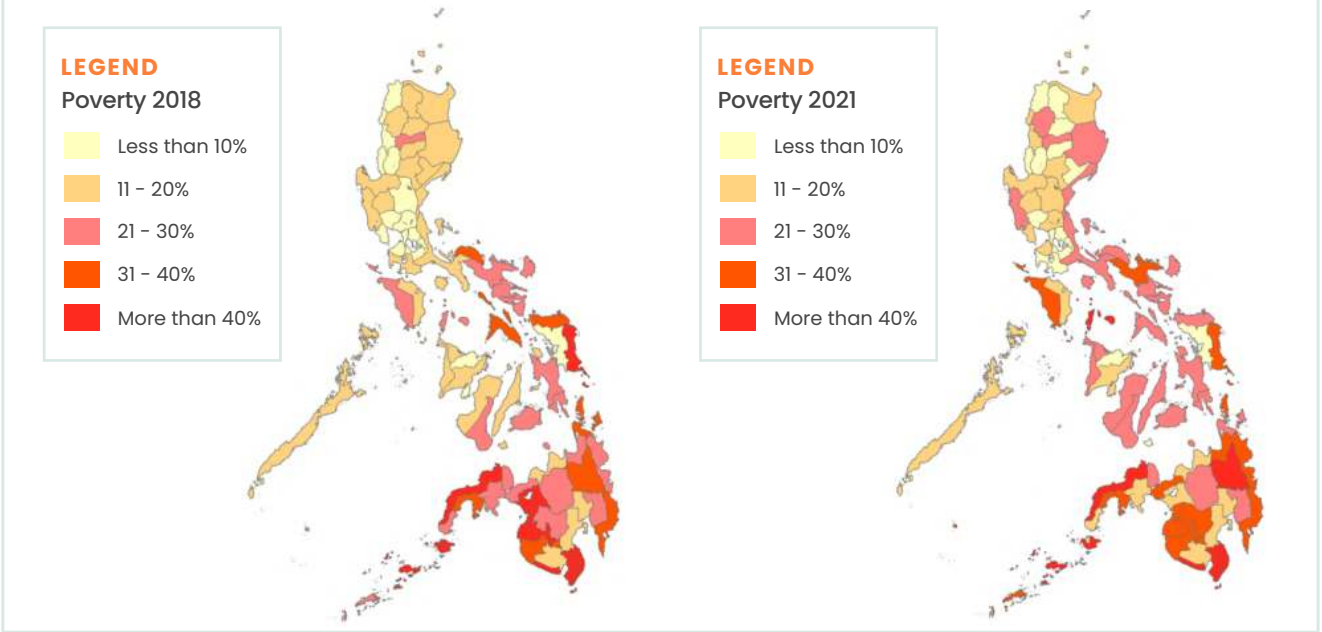
While access to basic services is generally high at the national level, disparities across ethnic groups have remained significant. As of 2010, Muslim ethnic groups had the country's lowest rates of access to safe drinking water, sanitation, and electricity. While non-Muslim IPs fare relatively better, their rates of access to basic services fall behind those of non-Muslim/non-IPs ethnic groups.[40] Limited access to basic services, particularly clean water and sanitation, can have adverse consequences, especially among children. A study comparing soil-transmitted helminth (STH) infections between IP and non-IP schoolchildren found that cumulative STH prevalence was significantly higher among IP children. STH infections, when left untreated, can lead to adverse health outcomes, including permanent growth deficits, diarrhea, and iron-deficiency anemia, which can have long-term consequences on children's health and development.[41] Overall, disparities in education, health outcomes, and access to basic services undermine human capital development among IPs, constraining their opportunities to rise above poverty and limiting their potential and prospects for upward mobility.

POVERTY AND GEOGRAPHIC LOCATION

IPs are located in both poor and better-off regions, while Muslim ethnic groups are more likely to live in poor areas. Analysis using CPH 2020 shows that IPs concentrate in both poor and better-off regions.[42] In Mindanao, for example, they are spread across regions and provinces with poverty rates ranging from below 20 percent in Davao to above 30 percent in Caraga and Zamboanga (Figure 11). In Luzon, IPs represent about 69 percent of the population of CAR, where poverty was 9.9 percent in 2021, and about 25 percent of the population in MIMAROPA, where poverty was 20.8 percent. While IPs represent the majority of the populations in better-off provinces like Benguet and Kalinga in CAR, they also constitute a significant proportion of the population in poorer provinces like Romblon and Mt. Province. In contrast, Muslim ethnic groups as well as IP & Muslim ethnic groups are concentrated in Mindanao, mainly in BARMM, which still has the country's highest poverty rate (Figure 14) despite recording a significant reduction in poverty in 2021 (falling from its decades-long level of more than 60 percent to 37.2 percent).[43] Muslims and IP & Muslim ethnic groups represent almost the totality of the population of Sulu, BARMM's poorest province, and of the population in Lanao de Sur, which had a poverty rate above 70 percent until 2018 (Figures 11, 12, and 14).

FIGURE 11

POVERTY INCIDENCE, 2018 AND 2021, PERCENT



Source: FIES 2018 and 2021.

[40] McDoom O S, Reyes C, Mina C, Asis R, Inequality Between Whom? Patterns, Trends, and Implications of Horizontal Inequality in the Philippines, Social Indicators Research, 145:923–942, 2019.
[41] Belizario V Y, Totañes Jr F I, de Leon W U, Lumampao Y F, Ciro R N, Soil-transmitted helminth and other intestinal parasitic infections among school children in indigenous people communities in Davao del Norte, Philippines, Acta Tropica 120S S12– S18, 2011.
[42] It is hard to know whether this is related to migration, since the 2020 CPH found that more than 90 percent of IPs and Muslim report not changing their city or province in the past five years, with 70 percent also reporting that their mother was in the same city at the time of birth.
[43] See World Bank (2024). Poverty in BARMM: drivers of recent reductions and remaining challenges. World Bank, Washington D.C.

FIGURE 12

SHARE OF IPs AND POVERTY RATES BY REGION, MINDANAO, PERCENT

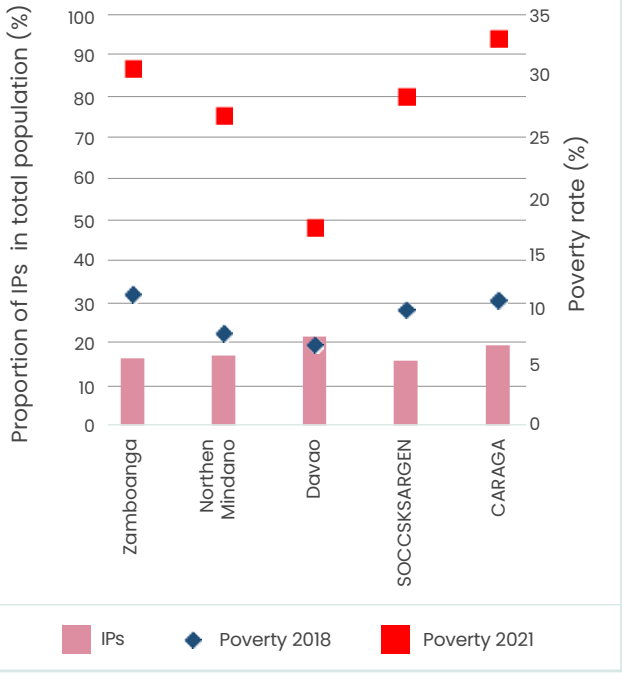
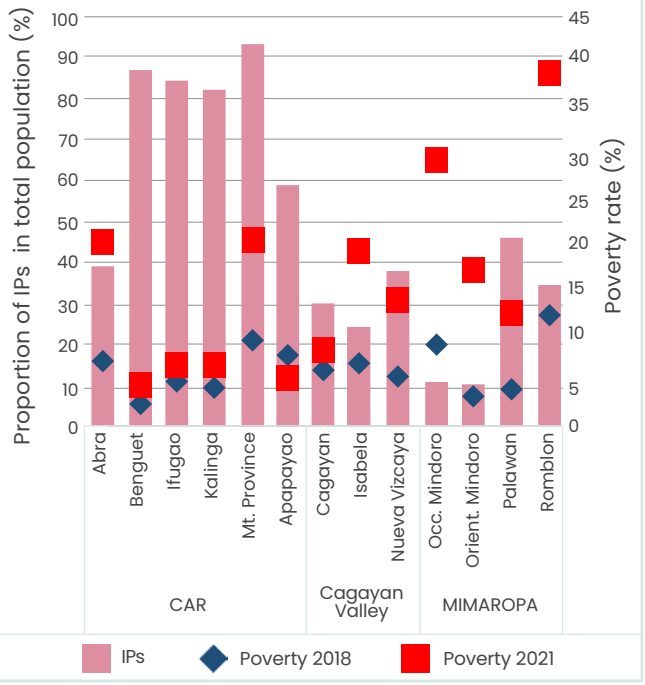


FIGURE 13

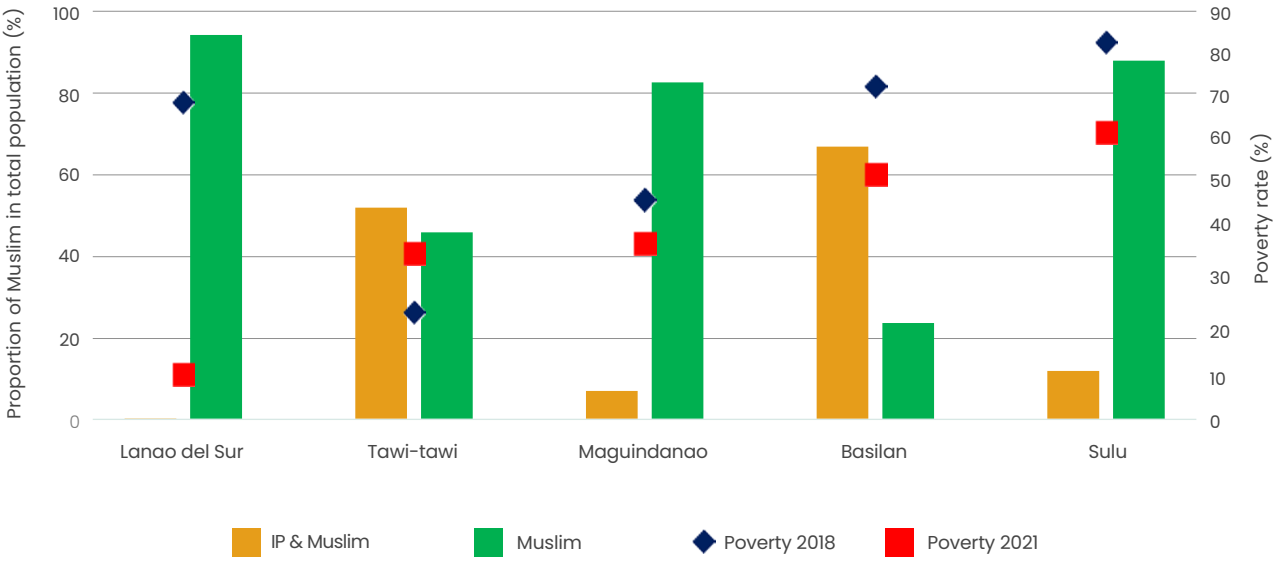
SHARE OF IPs AND POVERTY RATES BY PROVINCE, LUZON, PERCENT



Source: FIES 2018 and 2021 and CPH 2020.

FIGURE 14

SHARE OF MUSLIM ETHNIC GROUPS AND POVERTY RATES BY PROVINCE, BARMM, PERCENT

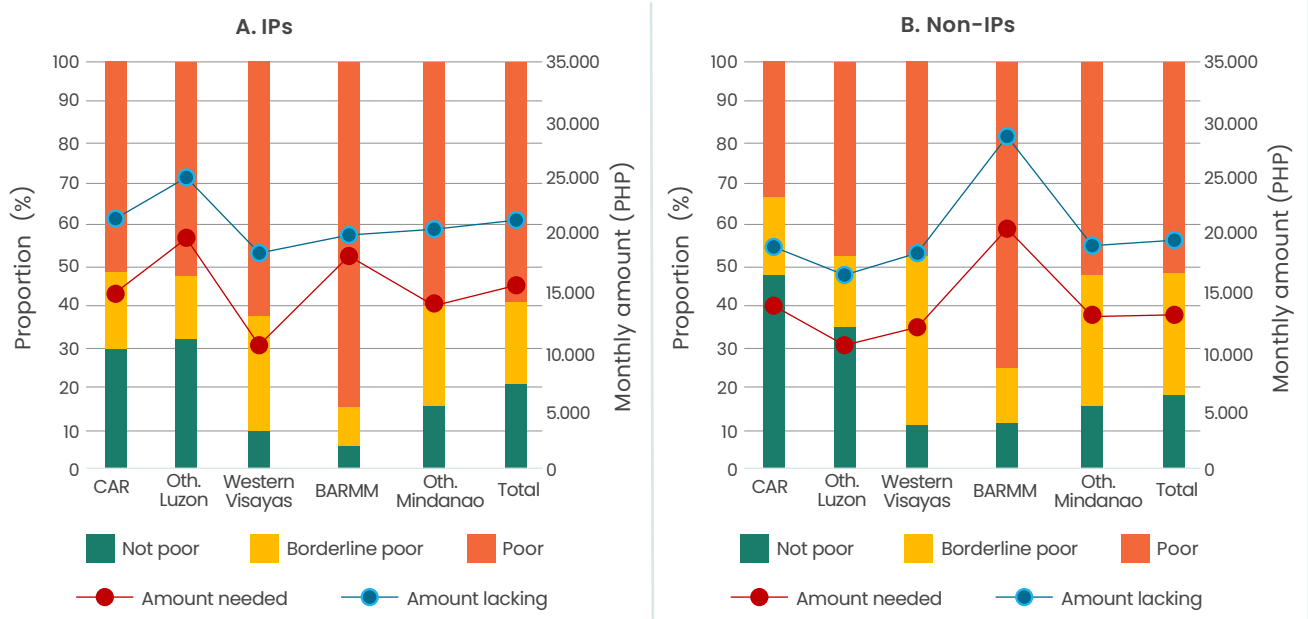


Source: CPH 2020.

As with any group, notions of poverty among IP groups have changed through time and continue to evolve. The IP HH survey indicates that approximately 59 percent of IP[44] perceive themselves as poor, higher than the same rate among non-IP (52 percent). However, while 30 percent of non-IP consider themselves "borderline poor," only 20 percent of IP groups perceive themselves to be in this category.[45] This dynamic is particularly pronounced in the BARMM, where a striking 84 percent of IP self-rate as poor – though the rate among non-IP, at 75 percent, is also high (Figure 15). Across the country, poor IP also estimate that they need higher average monthly amounts (21,500 PHP) to break out from poverty compared to the amounts estimated by poor non-IP (20,000 PHP), and the deficits they face in reaching these financial thresholds are also higher: 16,000 PHP compared to 13,500 PHP for non-IP. This pattern holds across all surveyed regions except for BARMM, where non-IP require higher amounts. Furthermore, a significant majority of poor IP across the country (81 percent) reported that they have not transitioned out of poverty, compared to 74 percent of non-IP. The likelihood of poor IP escaping poverty is highest in Western Visayas, where 50 percent reported past periods of non-poverty. This rate is remarkably low in BARMM, however, where only 7 percent reported such transitions. Across the country, the majority (over 80 percent) of IP who experienced non-poverty did so during the past decade (2014-2023).

FIGURE 15

SELF-RATED POVERTY AND AMOUNT NEEDED FOR MONTHLY EXPENSES



Source: World Bank IP HH 2023.

Notes: The "Amount needed" represents the estimated monthly expenses, as reported by respondents, required for those who self-rate as poor to no longer be considered poor. The "Amount lacking" represents the estimated monthly amount lacking for home expenses to no longer be considered poor.

Other Luzon includes Cagayan Valley and MIMAROPA, and Other Mindanao includes Zamboanga Peninsula, Northern Mindanao, Davao, SOCCSKSARGEN, and Caraga.

[44] IP here refer to IPs, IP& Muslim, and Muslims as the sample size of the IP household survey is not large enough to allow for a separate analysis of these groups.

[45] Questions about self-rated poverty are based on the SWS survey questionnaire. Respondents are presented with cards and asked, "Where would you position your family on this card? 1: Not poor, 2: On the line, and 3: Poor." Those who self-rate as "On the line" (or borderline poor) are those who place their families along a horizontal line that divides "Poor" and "Not Poor." Over the past two decades, historical data from SWS has consistently shown self-rated poverty to be significantly higher than monetary poverty, with self-rated poverty ranging between 40 to 60 percent, while monetary poverty has shown a decreasing trend from 25 percent to 18 percent or lower.

BOX 3

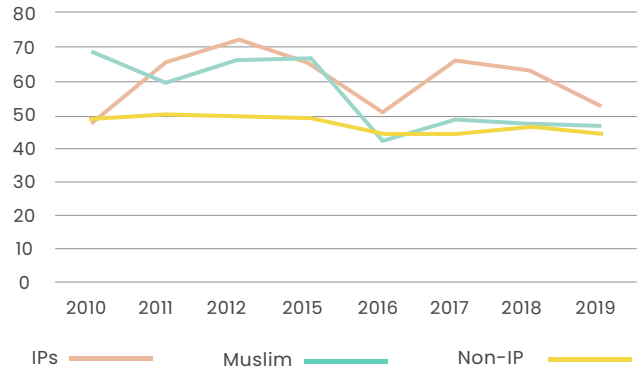
POVERTY, HUNGER AND QUALITY OF LIFE PERCEPTIONS, 2010 – 2021

Over half of IPs perceive themselves as poor. SWS surveys are conducted quarterly on a sample of about 1,200 to 1,500 respondents to fill in gaps in data not covered by other sources. SWS surveys include both regular time series data (focused on issues that vary from survey to survey, such as self-rated poverty, hunger incidence, quality of life perceptions, employment, or assets) and contemporary readings (with focus areas modified from time to time, depending on current public issues). The surveys use questionnaire wordings and sampling methodologies that are highly comparable across years. SWS surveys are among the country's few available surveys that include information on ethnic groups. Using a relatively similar classification for IP and Muslim ethnic groups as the CPH 2020, IPs[46] represent around 4 to 7 percent of the SWS survey sample and Muslim ethnic groups represent about 4 to 6 percent. Figure 3a shows the higher perceptions of poverty across all ethnic groups, which remained over 40 percent from 2010 to 2019, reflecting unmet aspirations for better living conditions. The proportion of those feeling poor is much higher among IPs – about 8 percentage points higher, on average, than among Muslim ethnic groups and 15 percentage points higher than among non-IPs. Self-rated poverty indicators show large volatility across years and regions, particularly among IPs, suggesting that the pattern of subjective perceptions of poverty is influenced by local economic conditions. The feeling of poverty is widespread in rural areas, Mindanao, and Visayas, which are more affected by natural disasters and conflicts.

A large proportion of IPs and Muslims feel poor based on the type of food their family eats. In 2019, about 40 percent of IP and Muslim ethnic groups families perceived themselves as food poor. While the proportion declined from its high level of over 60 percent in 2012, it remains about 10 points higher than among non-IPs (Figure 3b). The perception of food poverty shows large variations across regions and over time. The patterns are potentially related to the fluctuation of agriculture production – and thus cash flows, food prices, the occurrence of natural disasters, and instability due to conflicts.

FIGURE 3a

SELF-RATED POVERTY BY ETHNIC GROUP, 2010-2019, PERCENT

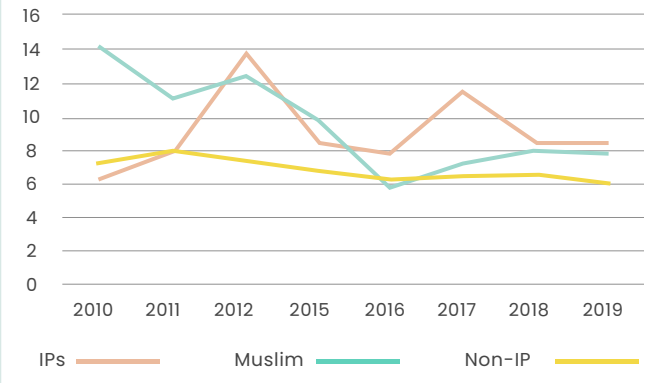


Source: SWS 2010-2019.

Note: Respondents are shown cards and asked *"Where would you place your family in this card? 1: Not poor, 2: On the line and 3: Poor".*
Data for 2013 and 2014 did not include ethnic groups.

FIGURE 3b

SELF-RATED FOOD POVERTY BY ETHNIC GROUP, 2010-2019, PERCENT



Source: SWS 2010-2019.

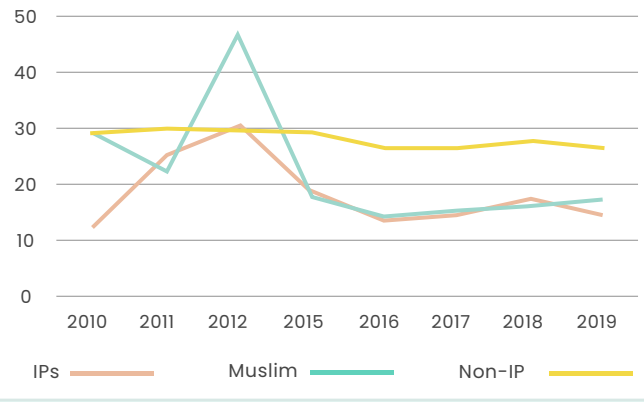
Notes: Respondents are shown cards and asked "Based on the type of food eaten by your family, where would you place your family in this card? *1: Not poor, 2: On the line and 3: Poor".*
Data for 2013 and 2014 did not include ethnic groups.

[46] The sample size of those IPs and Muslim is too small to be analyzed separately and was lumped with IPs.

IP and Muslim ethnic groups suffer higher incidence of hunger. Hunger incidence, defined as having experienced involuntary hunger in the three months preceding the survey, has declined significantly for all ethnic groups since its peak in 2012. However, by 2019 around 15 percent of IP households and 17 percent of Muslim households reported experiencing involuntary hunger, compared to 9 percent of non-IP families (Figure 3c). The proportion of households experiencing severe hunger followed the same pattern, declining significantly for all ethnic groups since 2012, but remaining higher for IP and Muslim ethnic groups (Figure 3d).

FIGURE 3c

INCIDENCE OF HUNGER BY ETHNIC GROUP, 2010-2019, PERCENT

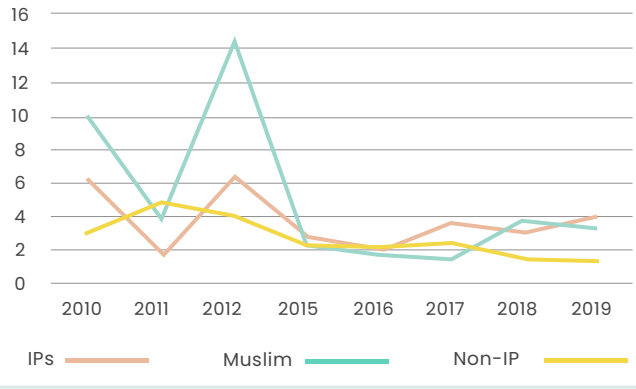


Source: SWS 2010-2019.

Note: Hunger is when households mentioned they experienced involuntary hunger in three months preceding the survey.

FIGURE 3d

INCIDENCE OF SEVERE HUNGER BY ETHNIC GROUP, 2010-2019, PERCENT



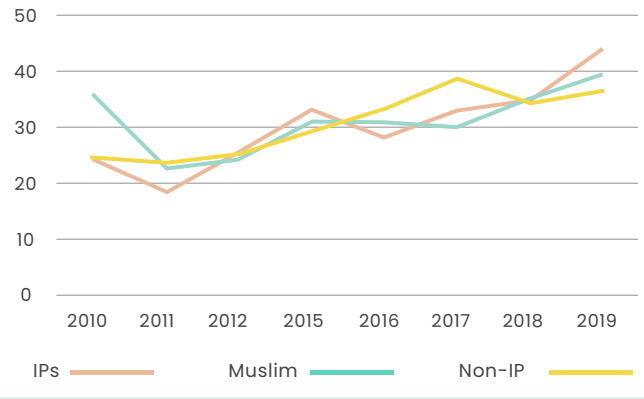
Source: SWS 2010-2019.

Note: Severe hunger is when households mentioned they experienced hunger often or always in three months preceding the survey.

IP and Muslim ethnic groups feel that their quality of life is improving and they are relatively optimistic about the future. The proportion of respondents who reported feeling that their quality of life is better than it was in the previous year increased over time and the increase was faster among IPs. In 2019, 44 percent of IPs and 39 percent of Muslims perceived their quality of life as better than a year before, compared to 37 percent of non-IPs (Figure 3e). Similarly, the proportion of people who feel that their quality of life will be better in the next year increased for all ethnic groups, though optimism remains lower among IPs (Figure 3f).

FIGURE 3e

QUALITY OF LIFE BY ETHNIC GROUP, 2010-2019, PERCENT

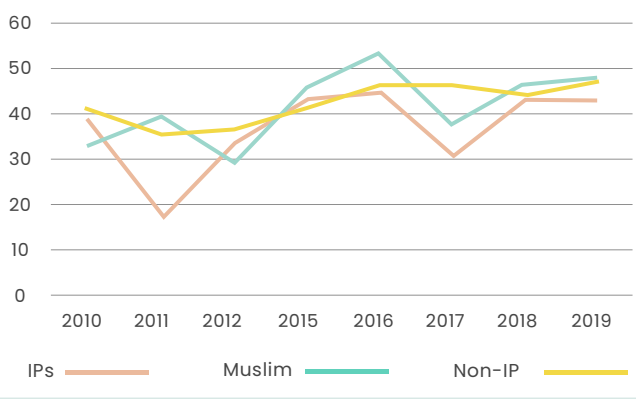


Source: SWS 2010-2019.

Note: Respondents are asked "Comparing your quality of life these days to how it was 12 months ago, would you say that your quality of life is *1: Better than before, 2: Same, 3: Worse than before.*"

FIGURE 3f

PROSPECTS FOR QUALITY OF LIFE BY ETHNIC GROUP, 2010-2019, PERCENT



Source: SWS 2010-2019.

Note: Respondents are asked "In your opinion, what will be the quality of your life in the coming 12 months? Would you say that your quality of life will be *1: Better than before, 2: Same, 3: Worse than before.*"

COMMUNITY AND SOCIAL COHESION

Despite high self-perceived poverty, IP are proud about their indigenous identity and have both a strong sense of belongingness to the Philippines and a good relationship with their community. According to the IP HH Survey 2023, most IP are proud of their indigenous identity, with 72 percent saying they are very proud and 17 percent saying they are somewhat proud (Figure 16). These proportions are consistent across all age groups and regions. In addition, 73 percent of IP respondents cite having a strong sense of belongingness to people that share the same indigenous background or ethnicity as them. For 56 percent of IP respondents, this belief has remained the same over the past 5 years, while a third state that the sentiment has become stronger in recent years. IP similarly feel a strong sense of belongingness to the country and to their local community, with rates that are even slightly higher than non-IP: 77 percent of IP respondents report having a strong sense of belongingness to the Philippines, compared to 73 of non-IP, and 68 percent of IP report having a strong sense of belongingness to their local community, compared to 64 percent of non-IP (Figure 17). The belief that people in their community maintain good relationships with each other is also strong, with 88 percent of both IP and non-IP respondents believing this to be true.

FIGURE 16

PRIDE FOR INDIGENOUS IDENTITY AND SENSE OF BELONGINGNESS AMONG IP, PERCENT

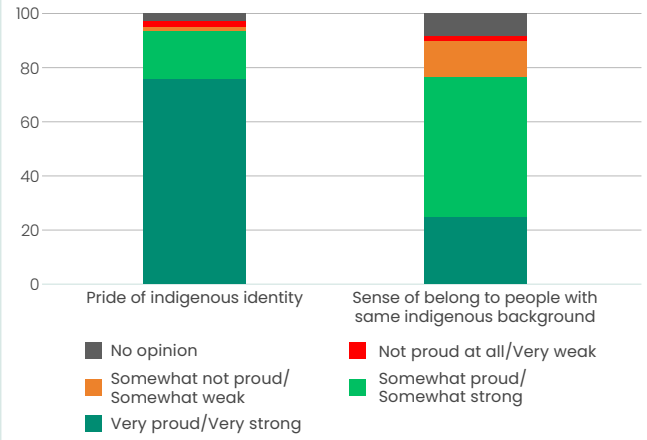
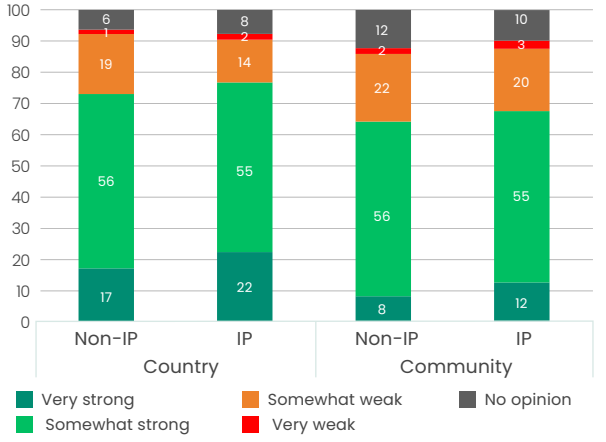


FIGURE 17

SENSE OF BELONGINGNESS TO THE COUNTRY AND COMMUNITY, PERCENT

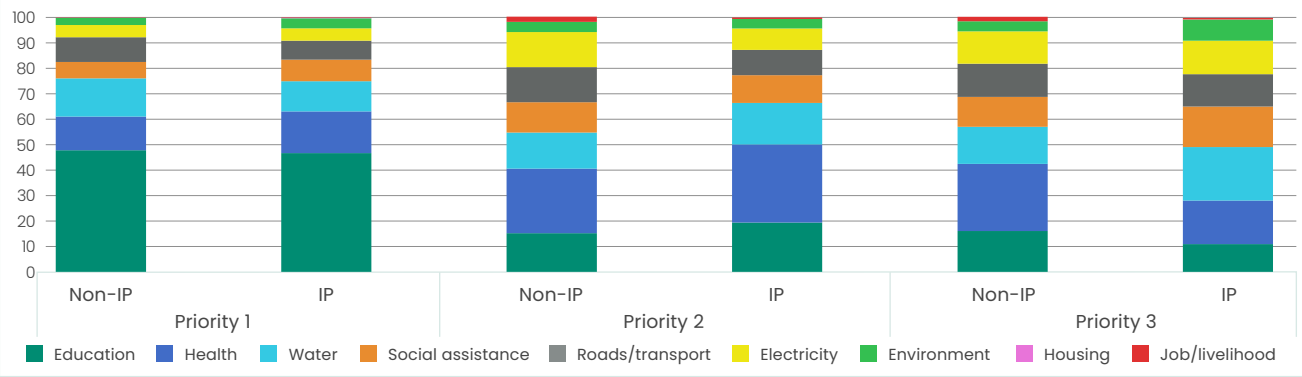


Source: World Bank IP HH Survey 2023.

Education, health, access to clean water, and social assistance stand out as the most pressing concerns for both IP and non-IP when it comes to government priorities. Close to half of both groups believe that education should be the government's top priority. Likewise, 31 percent of IP and 25 percent of non-IP rank health as the second-most important priority (Figure 18). For the third priority, 21 percent of IP and 15 percent of non-IP identify access to clean water, while approximately 15 percent of both IP and non-IP highlight social assistance. Across most regions, both IP and non-IP emphasize education as the top priority. However, in BARMM there are distinctions, with IP prioritizing health and water, while non-IP place greater importance on electricity and health.

FIGURE 18

TOP THREE PRIORITIES FOR THE GOVERNMENT TO ADDRESS, PERCENT



Source: World Bank IP HH Survey 2023.

DEMOGRAPHIC PROFILE

Relative to non-IPs, IPs and Muslim ethnic groups tend to have larger households with more children, increasing care needs and exerting more pressure on resources which can impact their ability to improve living standards. IPs and Muslim ethnic groups have a younger age profile and larger family sizes than non-IP groups. Over 62 percent of Muslim ethnic groups and 56 percent of IPs are younger than 25 years old, compared to 48 percent among non-IPs.[47] As such, the average age among Muslim ethnic groups and IPs is much lower, at 22 and 26 years old, respectively, compared to 29 years among non-IPs (Table 7). Moreover, with average household sizes of 4.2 and 5.3 members, respectively, IPs and Muslim ethnic group households are larger than non-IP households (with an average of 4.0 members) and the national average (4.1 members). This is partly driven by the fact that IPs and Muslim households often comprise extended families where family members and non-relatives live in the same household.

TABLE 7

DEMOGRAPHIC PROFILE BY ETHNIC GROUP, 2020

	Age head	Average age	Household size	Direct family members	Members under 5	Members under 15	Adults 15-64	Dependent	Female members
IP	45	26	4.2	4.0	0.5	1.4	2.6	1.6	2.0
IP & Muslim	42	23	5.0	4.7	0.7	2.0	2.8	2.1	2.5
Muslim ethnic groups	41	22	5.3	4.9	0.8	2.2	3.0	2.3	2.7
Non-IPs	47	29	4.0	3.8	0.4	1.2	2.6	1.4	2.0
Philippines	**47**	**28**	**4.1**	**3.9**	**0.4**	**1.3**	**2.6**	**1.5**	**2.0**

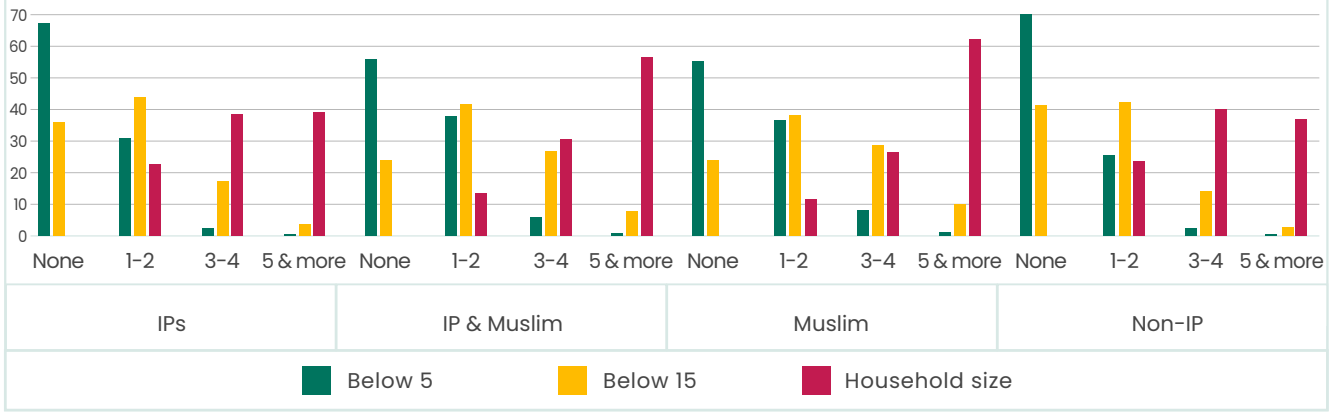
Source: CPH 2020.

IP and Muslim ethnic groups households have a much larger share of young children, which can affect their ability to improve their living standards. Over 30 percent of IP households and nearly 40 percent of Muslim ones have 1-2 children under the age of 5 compared to 25 percent among non-IP. About 7 percent of Muslim households have 3-4 children aged under 5 (Figure 19). In general, IPs and Muslim households located in poorer areas tend to have a much larger number of young children and dependents than both non-IP located in the same areas and their counterparts in better-off areas. For instance, 2.4 percent of IP households in Mindanao have 3 to 4 children younger than 5 compared with 1.7 percent of non-IP households in the same region and 1.5 percent of IP households in Luzon. A larger number of children tends to be associated with a higher likelihood of poverty and the perception of being poor as, on the one hand, households with more children and dependents are less likely to cover their basic consumption needs and move out of poverty, and, on the other hand, poor households tend to have more children to compensate for their inability to invest in other forms of human capital and as insurance against infant mortality.

[47] See age pyramids in Figure B5 in Appendix B.

FIGURE 19

PROPORTION OF CHILDREN AND HOUSEHOLD SIZE, PERCENT



Source: CPH 2020.

Note: The graph represents the proportion of households with children under 5, under 15, and the number of members. For example, the two first bars of the graph indicate that 67 percent of IP households do not have any children below 5, and 36 percent do not have children below 15.

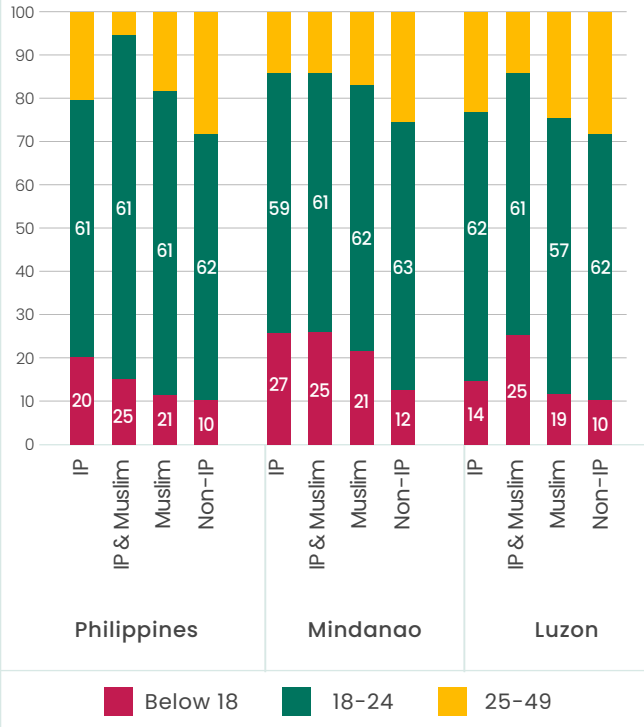
Women who head households among IPs and Muslim ethnic groups seem to be more vulnerable than women from other groups. Although household gender composition is similar across ethnic groups, the proportion of women who are the head of household is much lower among Muslims (13 percent) relative to both IPs (17 percent) and non-IPs (23 percent). The marital status of women who head households also varies across ethnic groups, with over 60 percent of both IPs and Muslims female household heads widowed or separated, compared to only half among non-IPs.

Women in Muslim ethnic groups tend to marry at younger ages and have higher fertility rates. At the national level, the share of IPs, Muslims, and IP & Muslim ethnic group women who marry before the age of 18 is at least double the share among non-IP women (Figure 20). This share is highest among IP & Muslim ethnic group women at 25 percent, 15 percentage points higher than the rate among non-IP women. Among IPs, there is wide geographic variation in the proportion of women marrying at younger ages. While the average share of IP women marrying before age 18 is 20 percent, it falls to 14 percent in Luzon and rises to 27 percent in Mindanao. Muslim women also have higher fertility rates, particularly among those who marry young. Around 43 percent of Muslim women who married before age 18 had three to four children, compared to 30 percent among non-IPs and 29 percent among IPs (Figure 21). While fertility is generally higher among IP and Muslim women, child mortality may also be higher. An estimated 4 percent of IP and Muslim women have lost children, compared to less than 3 percent of non-IP women.[48] Early marriage may explain the large number of dependents in Muslim households: as families grow, household care needs increase and women tend to disproportionately bear these commitments. Household circumstances may limit women's participation in various productive opportunities, negatively affecting their socioeconomic empowerment prospects.

[48] The CPH does not collect detailed information on child mortality. The figures mentioned here are based on the comparison of the number of children born to women aged 15-49 compared to those still living.

FIGURE 20

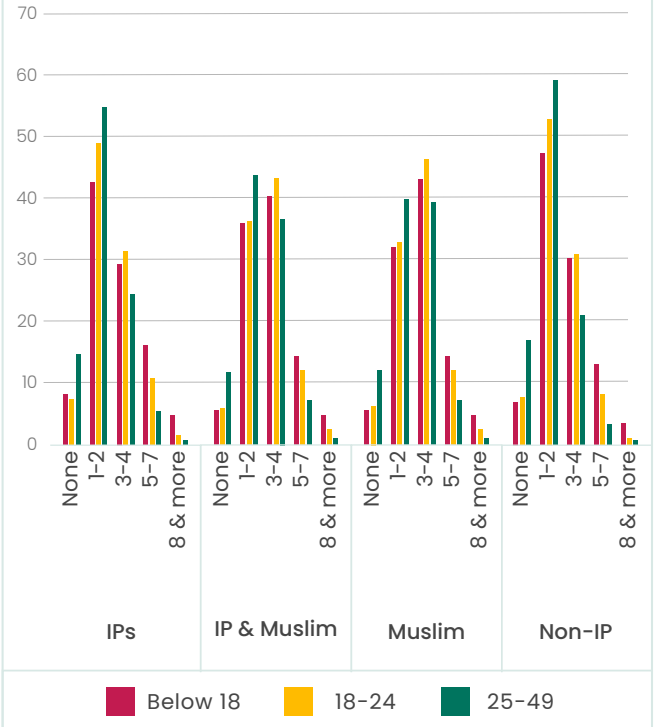
AGE AT FIRST MARRIAGE, WOMEN 15-49, 2020, PERCENT



Source: CPH 2020.

FIGURE 21

FERTILITY, WOMEN 15-49, 2020, PERCENT



Source: CPH 2020.

Pregnancy and birth rates are comparable among IP and non-IP women, but there are important variations across regions in terms of teenage pregnancy. The IP HH Survey shows that IP and non-IP women aged 15-49 show similar rates of having experienced at least one pregnancy (around 62 percent). However, among these women, the rates of having at least one birth are slightly higher among non-IP (98 percent) compared to IP (96 percent). Teenage pregnancy is more prevalent among IP women, with 11 percent of IP women aged 15-19 reporting at least one pregnancy, compared to 8 percent among their non-IP counterparts. Within IP, the highest rate of teenage pregnancy is observed in Other Luzon (Cagayan Valley and MIMAROPA) at 13 percent; among non-IP, it is highest in BARMM at 30 percent. Rates of teenage births also skew higher among IP, with 78 percent of those reporting having been pregnant also reporting having given birth at least once, compared to 60 percent among non-IP.

HUMAN CAPITAL: EDUCATION AND HEALTH

Although younger generations are performing better than their parents, disparities in education across ethnic groups have persisted, with IPs and Muslim ethnic groups continuing to face important challenges in developing human capital. Without birth certificates, people cannot benefit from welfare-building opportunities – as they need this official identification to receive support such as health care, social assistance, and access to finance, and to enter the formal job market and buy or inherit property. A large proportion of IPs and Muslim ethnic groups do not have birth registration and certificates, which limits their access to essential social and human-capital building services. Around 20 percent of the Muslim ethnic groups population do not have birth registration and certificates (Figures 22 and 23).[49] While the problem is less acute among IPs, with about 9 percent lacking a birth certificate, it remains much higher than among

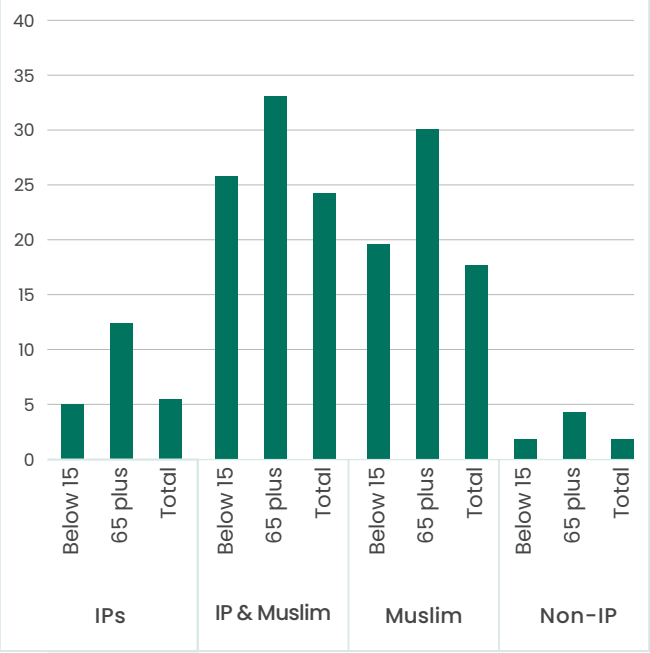
[49] There are no significant gender differences in birth registration across all ethnic groups.

non-IPs (4 percent). The absence of a birth certificate is particularly high among the elderly, reaching 37 percent among Muslims aged 65 and older and 20 percent among older IPs, but the rate is also very high among people younger than 15. Birth registration is particularly low in BARMM, where nearly 25 percent of Muslim ethnic groups and 30 percent of IP & Muslim ethnic groups do not have a birth certificate. It is also low among IPs in the regions of SOCCSKSARGEN and Davao, where 19 and 15 percent of IPs, respectively, do not have a birth certificate.

More than one-third of children under the age of five in Muslim ethnic groups do not have birth registration, which can affect socio-economic opportunities over their lifespan. Birth certificates are necessary for children to attend school, receive immunizations and other healthcare services, and have their rights protected (e.g., against child labor, early marriage, or violence) – all of which critically affect their human capital development, career prospects, and economic opportunities. The proportion of children under the age of five without birth registration is over 50 percent in the provinces of Basilan and Lanao del Sur in BARMM. Among IPs, about 8 percent of children under five are not registered at birth and 13 percent do not have a birth certificate, with the proportion increasing to upwards of 30 percent in some provinces in Davao, SOCCSKSARGEN, and MIMAROPA.

FIGURE 22

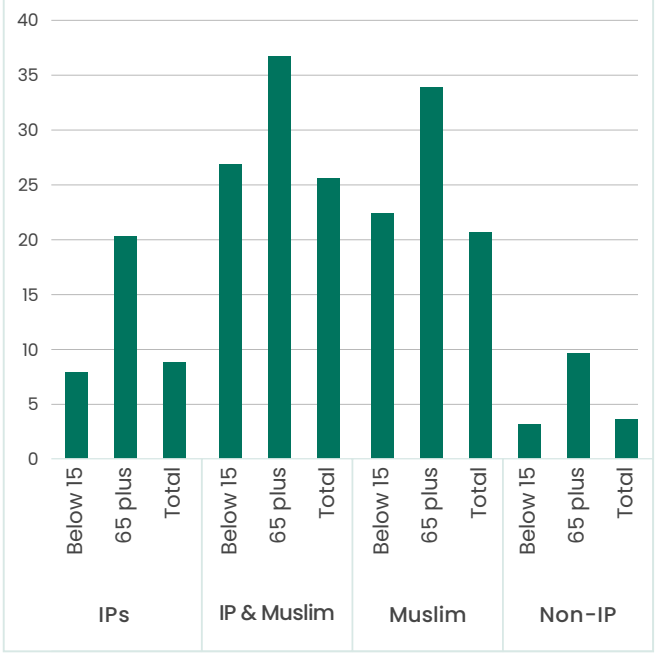
NO BIRTH REGISTERED, 2020, PERCENT



Source: CPH 2020.

FIGURE 23

NO BIRTH CERTIFICATE, 2020, PERCENT



Source: CPH 2020.

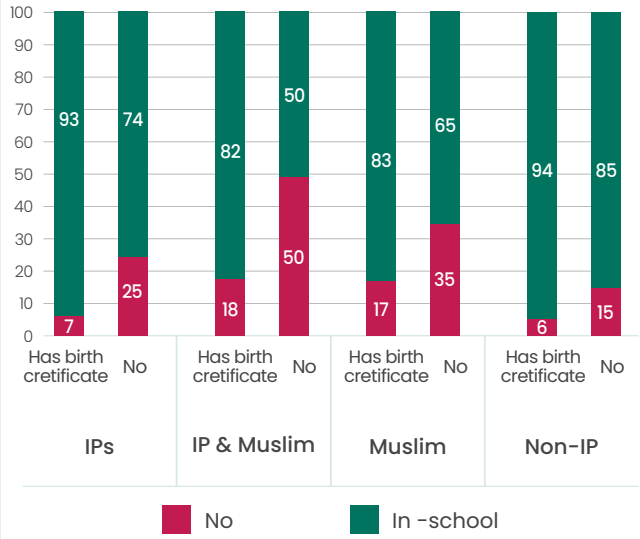
Similarly, significant proportions of both IPs and non-IPs have yet to complete the Philippine Identification System (PhilSys) registration process, highlighting the need to enhance completion rates to strengthen access to social services. The IP HH Survey shows that a majority (95 percent) of IP and non-IP are aware of PhilSys. Among the 90 percent who also report having registered, the majority report having been able to complete Steps 1 and 2 of the process which involve providing demographic information and having their biometric information validated. However, there appears to be some difficulty in completing the next step of having a PhilSys number and ID issued, which suggests that the process could be improved further. While rates of registration and completion are similar between IP and non-IP groups, they faced different challenges during the registration process. Among IP, the most common challenges cited were the complexity of the registration process (reported by 54 percent of respondents) and the distance to the registration area (29 percent). Among non-IP, the most frequently cited concerns were not

understanding the registration process (40 percent) followed by the complexity of the process (39 percent). The broad adoption and utilization of PhilSys has enormous potential for helping improve both the targeting and delivery of public services. Given that awareness and registration are already both high, increasing completion rates could help bolster access to social services by filling current gaps in primary ID coverage.

The absence of birth certificates seems to reduce the likelihood of school attendance for children, particularly among Muslim ethnic groups and IPs. Across all ethnic groups, the proportion of children aged 5 to 14 who are not attending school is more than twice as high among those who do not have a birth certificate (Figure 24). Strikingly, this trend is most pronounced for Muslim ethnic groups and IPs. While around 15 percent of non-IP children with no birth certificate are not attending school, this rate reaches 26 percent for IPs and 35 percent for Muslim ethnic groups, jumping to 50 percent for IP & Muslim ethnic groups. Overall, these findings seem to indicate that the absence of birth certificates exacerbates lower school attendance for children and that this effect is stronger among Muslims and IPs.

FIGURE 24

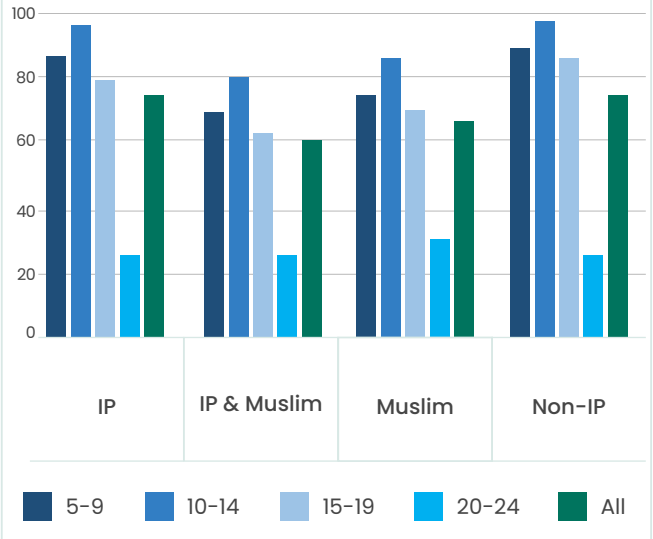
SCHOOL ATTENDANCE CHILDREN AGED 5-14 AND BIRTH REGISTRATION, 2020, PERCENT



Source: CPH 2020.

FIGURE 25

SCHOOL ATTENDANCE CHILDREN AGED 5-24, 2020, PERCENT



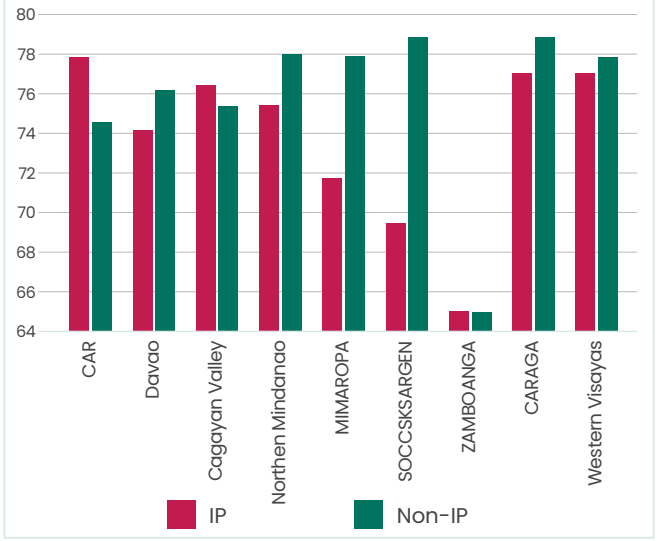
Source: CPH 2020.

Regardless of birth registration, school attendance remains lowest among Muslim ethnic groups. In 2020, at least 75 percent of IPs and non-IPs young people aged 5 to 24 report attending school (Figure 26). In contrast, only 67 percent of those from Muslim ethnic groups and 62 percent of IP & Muslim ethnic groups were in school during the same period. Disparities between groups also appear to begin at an early age. Over 85 percent of IPs and non-IP children aged 5 to 9 attend school, in contrast to 75 percent of children in the same age group from Muslim ethnic groups and 70 percent of IP & Muslim ethnic group children. While attendance rates rise for children aged of 10 to 14, significant gaps remain: the rate for children from Muslim ethnic groups is 12 percentage points lower than for non-IP children in the same age group, and this gap is 18 percentage points IP & Muslim ethnic group children (see Figure 25).

School attendance rates for IP children vary across regions. School attendance rates for IP children aged 5 to 24 range between 70 and 78 percent nationally, compared to 75 to 79 percent for non-IPs. In most regions (except CAR and Cagayan Valley), school attendance rates are lower among IP children (Figure 26). The gap in school attendance between IP and non-IP children is particularly large in MIMAROPA and SOCCSKARGEN, where the proportion of IP children attending school is about 7 points lower than non-IP children. The disparity is particularly alarming in SOCCSKARGEN, with the country's highest level of non-IP school attendance (79 percent) but also the lowest level for IP children (70 percent).

FIGURE 26

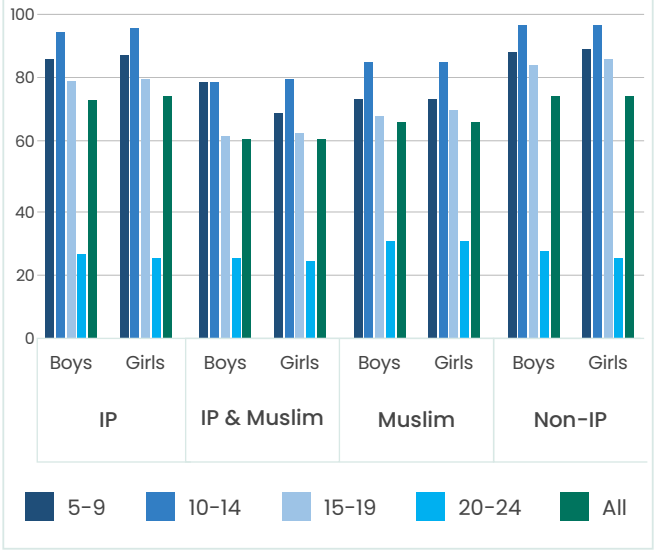
SCHOOL ATTENDANCE CHILDREN AGED 5-24, BY IP/NON-IP AND REGION, PERCENT



Source: CPH 2020.

FIGURE 27

PROPORTION OF CHILDREN AGED 5-24 IN SCHOOL, BY GENDER , PERCENT



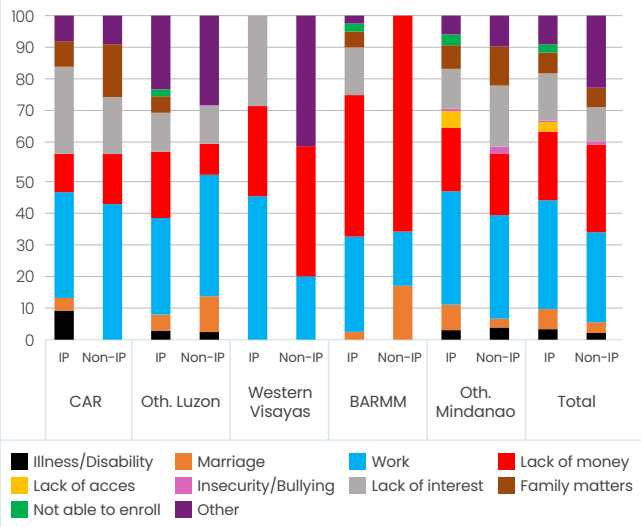
Source: CPH 2020.

School drop-out rates increase after age 15, particularly among boys. Across all ethnic groups, school attendance is slightly higher among girls than boys. Compared to non-IPs, however, attendance remains lower for IP girls, girls from Muslim ethnic groups, and IP & Muslim ethnic group girls compared to non-IP girls (Figure 27). School attendance starts declining at age 15 and drops below 30 percent for students aged 20 to 24 years. School dropout rates seem to be slightly higher among boys than girls, but these figures mask large variations across geographic areas and ethnic groups. Among IPs, school dropouts are highest in Mindanao, where about 23 percent of children aged 15 to 19 years are out of school, compared to 16 percent in Luzon. School dropout rates are 2 to 5 percentage points higher for IP boys than girls in all regions in Mindanao and Luzon, except SOCCSKSARGEN and MIMAROPA. Among Muslim ethnic groups, school dropout rates in the same age group are 2 to 6 percentage points higher for boys than girls and are highest in the provinces of Basilan (39 percent) and Sulu (36 percent) in BARMM. Among IP & Muslim ethnic groups, school dropout rates reach very high levels in some provinces in BARMM, as much as 64 percent for boys and 66 percent for girls in Sulu, and 43 percent for boys and 40 percent for girls in Basilan. These disparities in education levels and attendance rates limit opportunities for skills development, subsequently restricting career prospects and upward mobility among young IPs.

The IP HH Survey shows that the reasons for non-attendance vary widely by gender and region. Among boys aged 16-24, work and the lack of financial resources are the most common reasons for not attending school, with a larger share of IP citing work reasons (34 percent compared to 28 percent among non-IP) and a larger share of non-IP citing lack of money (27 percent compared to 21 percent among IP). (See Figure 28.) Across CAR, Other Luzon, and Other Mindanao (Zamboanga Peninsula, Northern Mindanao, Davao, SOCCSKSARGEN, and Caraga), work remains the most common reason for not attending school for both IP and non-IP, while in BARMM, the most prevalent reason is lack of money, cited by 44 percent of IP and 67 percent of non-IP. In contrast, marriage or pregnancy is the most common reason among IP women aged 16-24 across regions, cited by more than a quarter of those not in school (Figure 29). Regionally, the share of IP women citing marriage or pregnancy for non-attendance is highest – and 14 percentage points higher than non-IP – in Other Luzon and BARMM. Among non-IP, work continues to be the most common reason for non-attendance (29 percent overall), particularly in BARMM (75 percent).

FIGURE 28

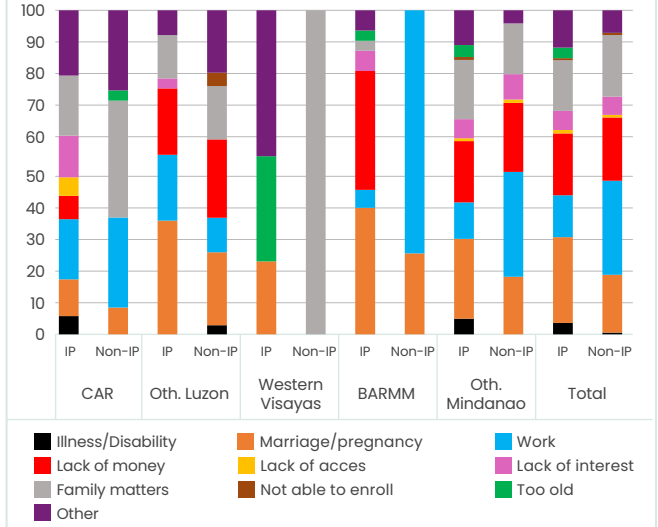
REASON BOYS AGED 16-24 ARE NOT ATTENDING SCHOOL, PERCENT



Source: World Bank IP HH Survey 2023.

FIGURE 29

REASON GIRLS AGED 16-24 ARE NOT ATTENDING SCHOOL, PERCENT

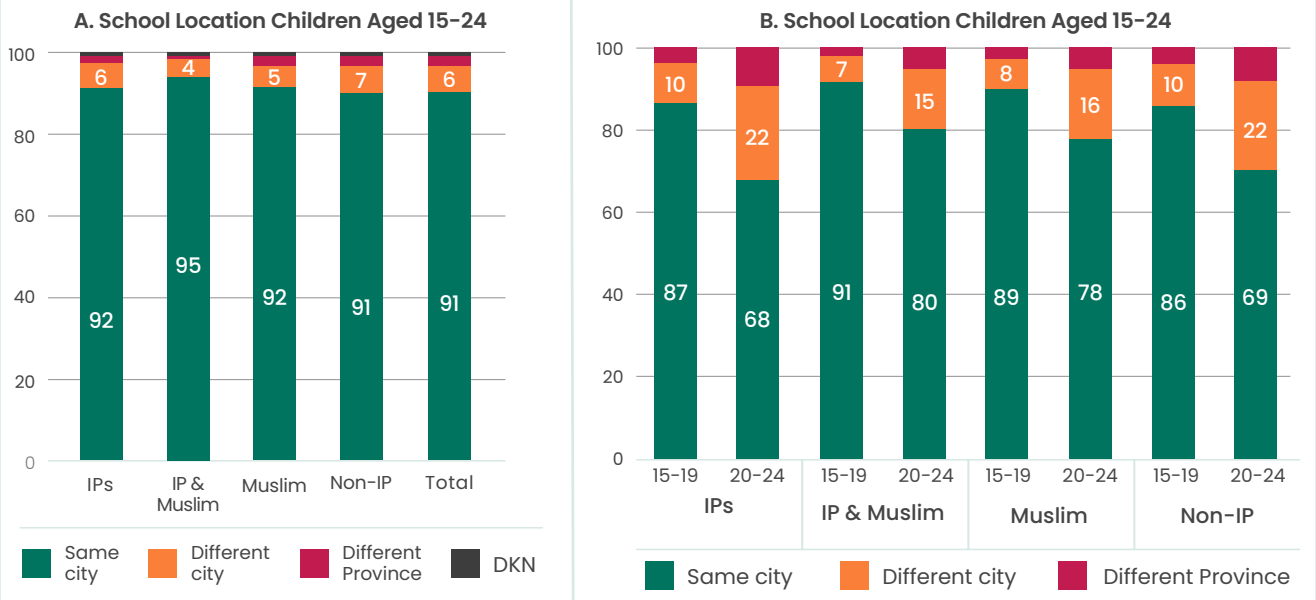


Source: World Bank IP HH Survey 2023.

While younger students tend to attend school in their city of residence, older students often must travel to different provinces or cities. About 91 percent of Filipino students aged 5 to 24 attend school in their city of residence (Figure 30A). This figure is slightly higher for children in IP & Muslim ethnic groups, indicating a greater tendency to stay within their hometowns. Regardless of ethnicity, starting at age 15, students tend to move outside their location of residence to pursue their education elsewhere. This pattern increases among those aged 20 to 24. About 20 percent of students in this age group tend to migrate to other cities to attend school and another 10 percent migrate to other provinces. The proportion of students aged 20-24 who travel outside their hometown to study is lowest among Muslims and IP & Muslim ethnic groups (Figure 30B). On the one hand, these trends could indicate the limited dispersion or availability of higher education institutions (i.e., college and universities) where students live. On the other hand, they could indicate a stronger desire among students from Muslim ethnic groups to stay rooted.

FIGURE 30

SCHOOL LOCATION, 2020, PERCENT

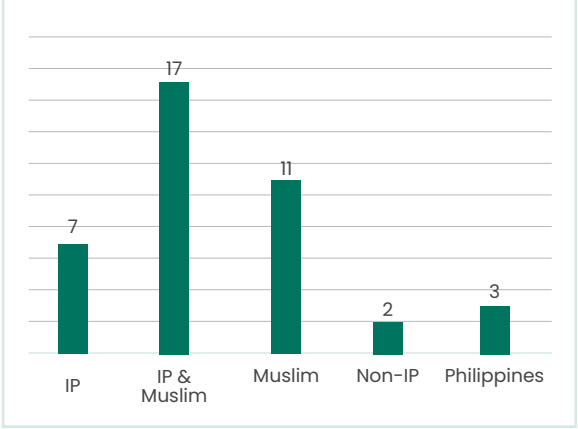


Source: CPH 2020.

IPs and Muslim ethnic groups are disadvantaged by lower education levels and greater illiteracy, which hinder their ability to take advantage of economic opportunities. While most non-IP groups can read and write, about 11 percent in Muslim ethnic groups and 17 percent in IP & Muslim ethnic groups cannot (Figure 31). Literacy rates are relatively higher among IPs, but they also remain much lower than the national average. Literacy gaps across ethnic groups are even wider for older generations. More worrisome is low literacy rates among children aged 5 to 9. The proportion of children in this age group who are unable to read or write is high among non-IPs (13 percent), but even higher among IPs (22 percent) and Muslim ethnic groups (30 percent). Educational attainment is also considerably lower among Muslim ethnic groups and, to a lesser extent, IPs. About 16 percent of Muslim ethnic groups and 22 percent of IP & Muslim ethnic groups have no formal schooling, compared to 9 percent for IPs and 5 percent for non-IPs (Figure 32). Even if they have attended some formal schooling, IP and Muslim ethnic groups are less likely to complete higher levels of education. About a third in each of group have only an incomplete elementary education. The share of those who graduated high school and above only reaches 27 percent among Muslim ethnic groups and 33 percent among IPs, compared to 51 percent among non-IPs. College education remains out of reach for most IPs and Muslim ethnic groups. Across all ethnic groups, education levels are higher among women than men, but they remain lower among women from IP and Muslim ethnic groups than non-IP women. Low levels of education reduce access to productive employment opportunities and serve to further reinforce deeply rooted inequalities between IPs, Muslim ethnic groups, and non-IPs.

FIGURE 31

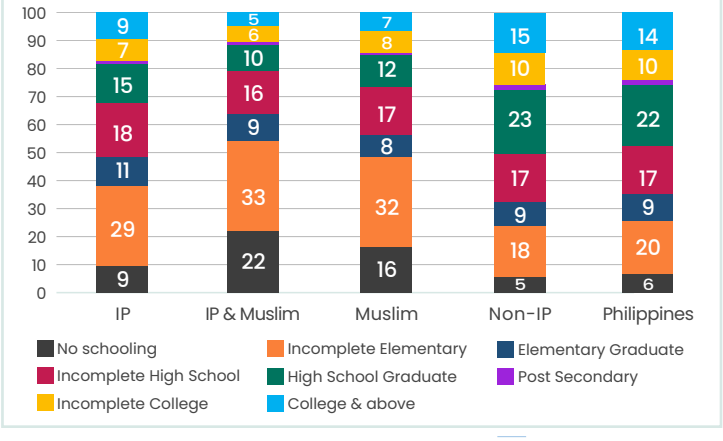
CAN'T READ OR WRITE, 2020, PERCENT



Source: CPH 2020

FIGURE 32

EDUCATION ATTAINMENT, 2020, PERCENT



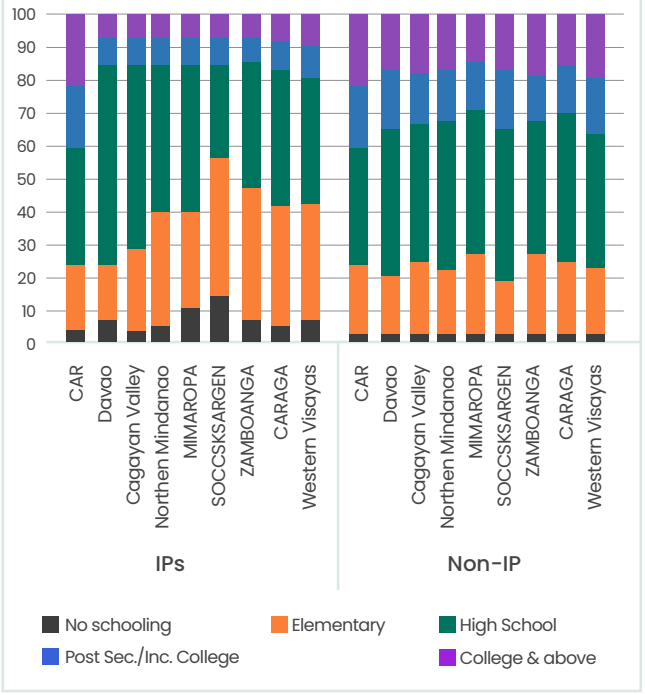
Source: CPH 2020

There are large geographic variations in education levels among IPs. In Mindanao, about 11 percent of IPs had no formal schooling and only 10 percent went beyond high school. Within Mindanao, IPs in SOCCSKSARGEN perform much worse than their counterparts in other regions. In Luzon, 8 percent had no formal schooling and more than 25 percent reached levels of post-secondary or above. Within Luzon, those located in CAR and Cagayan Valley performed much better than those in MIMAROPA (Figure 33). No matter the location, however, IPs seem to have lower education levels than non-IPs.

Younger generations of IP and Muslim ethnic groups seem to have higher education than older ones. Less than 29 percent of the oldest generation (65 and above) among IPs and Muslim ethnic groups completed high school education or more, compared to at least 72 percent of the group aged 15-24 (Figure 34). Younger generations seem to achieve higher levels of education than older cohorts, indicating remarkable progress in attainment that appears to be improving more rapidly among IPs than among non-IPs. The rapid expansion of education in the Philippines, potentially coupled with shifting perspectives about education's role among younger generations of IPs and Muslim ethnic groups, may be driving education mobility. Despite this, the share of young Muslim ethnic groups and IPs who attain higher levels of education continues to be lower than their non-IP counterparts. In 2020, 92 percent of non-IP youth reached high school and above, compared to 82 and 72 percent for IPs and Muslim ethnic groups, respectively.

FIGURE 33

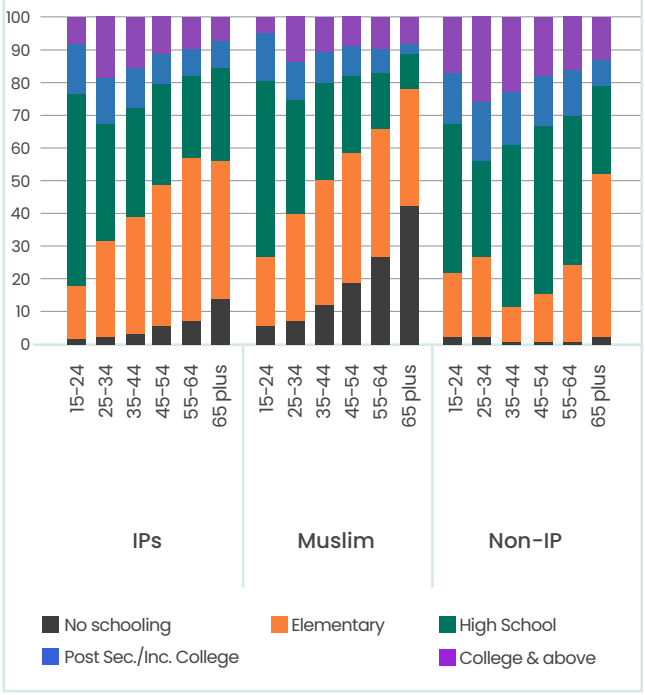
EDUCATION ATTAINMENT BY REGION, IPs AND NON-IPs, PERCENT



Source: CPH 2020.

FIGURE 34

EDUCATION ATTAINMENT BY AGE GROUP, IPs AND MUSLIM ETHNIC GROUPS, PERCENT



Source: CPH 2020.

The incidence of health problems between ethnic groups varies by data source. Among the overall population, there are no clear differences in functional difficulties across ethnic groups, with at least 83 percent reporting no difficulties in seeing, hearing, walking, or caring for themselves. This may be related to the fact that self-reported health responses in the CPH may not capture the true extent of health problems. This is supported by findings from the IP HH Survey showing that approximately 45 percent of IP populations and 50 percent of non-IP reported experiencing health difficulties or disabilities. These proportions rise to 57 percent for IP in Other Mindanao and 76 percent of non-IP in BARMM. Unsurprisingly, these difficulties are more prevalent among the elderly, with 77 percent of IP aged 65 and older and 72 percent of non-IPs in the same age group facing health issues. Common difficulties include vision problems and memory and concentration issues, although challenges related to mobility, such as walking or climbing stairs, are also common among the elderly.

Financial constraints prevent access to healthcare for both IP and non-IP groups. The IP HH Survey shows that nearly half of IP respondents and 41 percent of non-IPs had family members that needed medical consultation, treatment, or care in the past 6 months. Among those who needed medical care, a larger share of IP households (83 percent) was able to receive treatment compared to non-IP households (76 percent). However, the reasons for not accessing medical care or treatment vary between IP and non-IP households (Figure 35). Among IP groups, the overwhelming reason was lack of financial resources, cited by 45 percent of IP households that needed care but were unable to access it. Issues with distance and accessibility, as well as lack of transportation, are also significant contributors (cited by 8 percent and 6 percent of IPs, respectively). Only 21 percent of non-IPs also cite lack of resources as a significant reason for not accessing needed care, but 9 percent cite lack of available personnel as the main reason for not accessing care – compared to 1 percent of IPs who cite this reason.

Overall, public hospitals are the most used facilities for childbirth, but utilization of birth facilities varies across regions. The IP HH Survey shows that 50 percent of IP women and 44 percent of non-IP women aged 15-49 have given birth at least once in a public hospital (Figure 36). However, the utilization of birth facilities varies significantly across regions and age groups. Most women in BARMM (84 percent among IP and 64

percent among non-IP) report giving birth at home, while fewer than 14 percent do so in CAR. Notably, a larger proportion of older women aged 40-49 report giving birth at home than their younger counterparts, suggesting increased access to health facilities and greater awareness among younger generations. Nevertheless, more than half of teenage girls in BARMM (both IP and non-IP) report giving birth at home. Giving birth at home lacks the necessary medical supervision and facilities to address potential complications during childbirth, exposing the mother and child to important health risks.

FIGURE 35

MAIN REASON FOR NOT ACCESSING MEDICAL TREATMENT, PERCENT

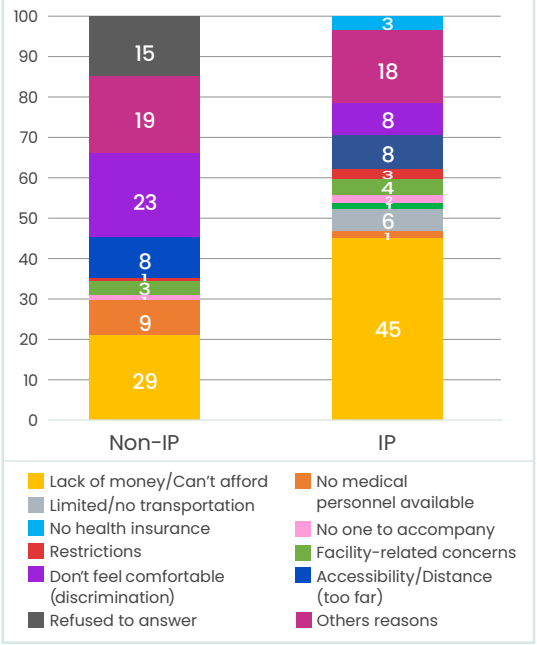
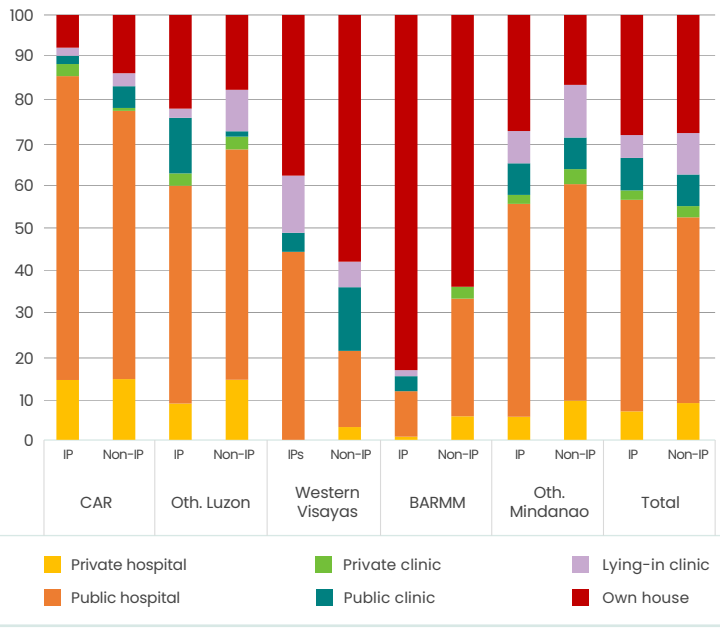


FIGURE 36

FACILITY FOR USED FOR BIRTH, WOMEN AGED 15-49, PERCENT



Source: World Bank IP HH Survey 2023.

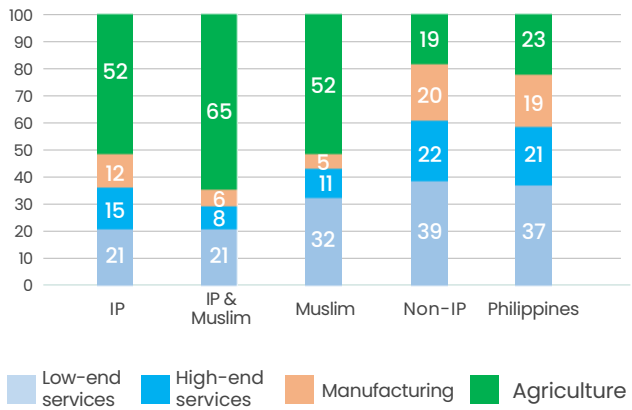
EMPLOYMENT

Employment in agriculture continues to dominate economic activity among IPs and Muslim ethnic groups, though younger workers and those with higher levels of education are increasingly employed in services. IP and Muslim ethnic groups continue to rely heavily on less productive sectors and occupations. Around 53 percent of working-age IPs and non-IPs are engaged in gainful activities,[50] compared to 43 percent of Muslim ethnic groups and 44 percent of IP & Muslim ethnic groups. Across all ethnic groups, engagement in gainful activities is slightly higher among those with higher education and those aged 35-54. Agriculture dominates employment among Muslim ethnic groups and IPs, while employment among non-IPs is concentrated in services and, to a lesser extent, manufacturing (Figure 37). Although employment in low-end services is high for all ethnic groups, a much larger proportion of the non-IP workforce is employed in high-end services than among Muslim ethnic groups and IP groups. A similar pattern can be seen in terms of occupations, with Muslim ethnic groups and IPs predominantly employed in skilled agriculture and low-skilled occupations, while non-IPs are essentially in middle-skilled and, to a lesser extent, high-skilled occupations (Figure 38). Employment of IPs varies across regions. While in Mindanao and Visayas over 60 percent are employed in agriculture, this drops to 43 percent in Luzon. In Luzon, employment of IPs in agriculture varies from 54 percent in MIMAROPA to 47 percent in CAR and 43 percent in Cagayan Valley.

[50] The census does not ask for employment status but the occupation categories include "Non-gainful Activities and Special Occupations," which seems to capture the non-employed.

FIGURE 37

EMPLOYMENT BY SECTOR, 2020, PERCENT

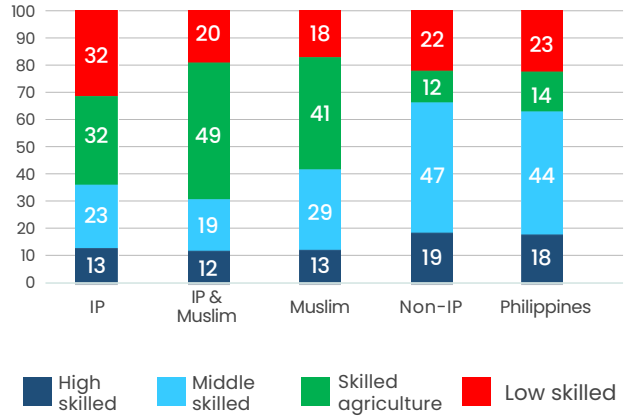


Source: CPH 2020.

Note: Low-end services include trade, transportation, food and accommodation, and household and other service activities. High-end services include public administration, ICT, and financial and professional activities.

FIGURE 38

EMPLOYMENT BY OCCUPATION TYPE, 2020, PERCENT



Source: CPH 2020.

Note: High-skilled occupations include managers, professionals, and technicians; middle-skilled occupations include clerical support, sales, machine operators, and craft and related trades workers; low-skilled occupations include laborers, cleaners etc.

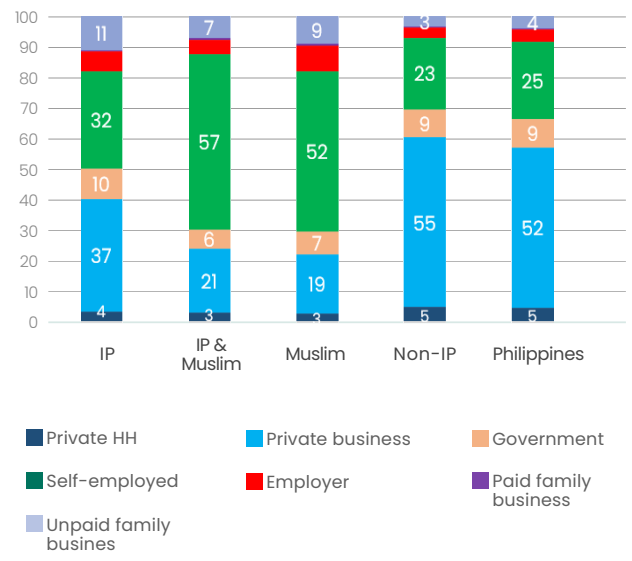
There are also wide variations in the class of work, with higher shares of self-employment for IPs and Muslim ethnic groups. While private businesses employ 55 percent of non-IP workers, this figure drops considerably among other groups, particularly among Muslim ethnic groups (Figure 39). Workers from these groups are far more likely to engage in self-employment. About 52 percent of workers from Muslim ethnic groups are self-employed – more than double the rate among non-IPs and the national average. Unpaid family work is also considerably higher among Muslim ethnic groups and IPs, ranging from 7 to 11 percent compared to the national average of 4 percent.

The IP HH Survey also reveals that IPs are more likely to be employed in less productive sectors than non-IPs, though these disparities are influenced more by geographic location than ethnicity. IP HH 2023 shows that IP groups generally have lower education levels. IP and non-IP workers with primary education levels or below are often engaged in agriculture and self-employment. Conversely, employment in services, industry, and wage work is higher for the college educated among both IP and non-IPs. However, 25 percent of IPs with a college education are employed in agriculture, compared to 16 percent of non-IPs, and 46 percent are in self-employment or family businesses, compared to 39 percent of non-IPs. Education and employment profiles tend to vary across regions. IPs in the CAR region tend to have higher education levels and to be employed in higher profile jobs than IPs in BARMM and Other Mindanao. Similarly, while employment in low-productivity sectors is more common among IPs than non-IPs across all regions, the disparities between the two groups are less pronounced in CAR compared to BARMM and Other Mindanao. Lack of education, family obligations, financial constraints, and limited job opportunities are the most cited reasons that hinder IPs' employment in productive sectors.

Younger and more educated IPs and Muslim ethnic groups seem to engage less in agriculture. Based on CPH 2020, over 70 percent of IPs and Muslim ethnic groups with primary education or less worked in agriculture, compared to less than 30 percent among those who completed high school or above (Figure 40). Younger IPs and Muslim ethnic groups are also more likely to work in services and manufacturing, while older age groups are mainly employed in agriculture. Although younger and more educated cohorts of Muslim ethnic groups and IPs seem to engage more in nonfarm employment than older generations, they remain disproportionately employed in agriculture compared to young non-IPs.

FIGURE 39

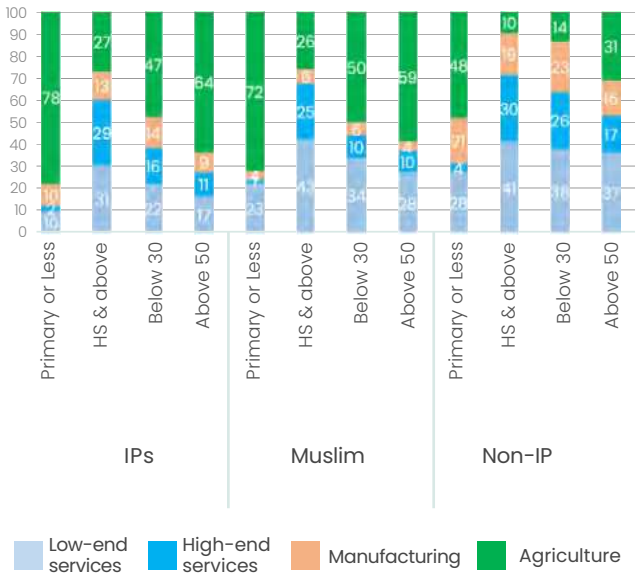
CLASS OF WORK, 2020, PERCENT



Source: CPH 2020.

FIGURE 40

SECTOR BY EDUCATION AND AGE, 2020, PERCENT



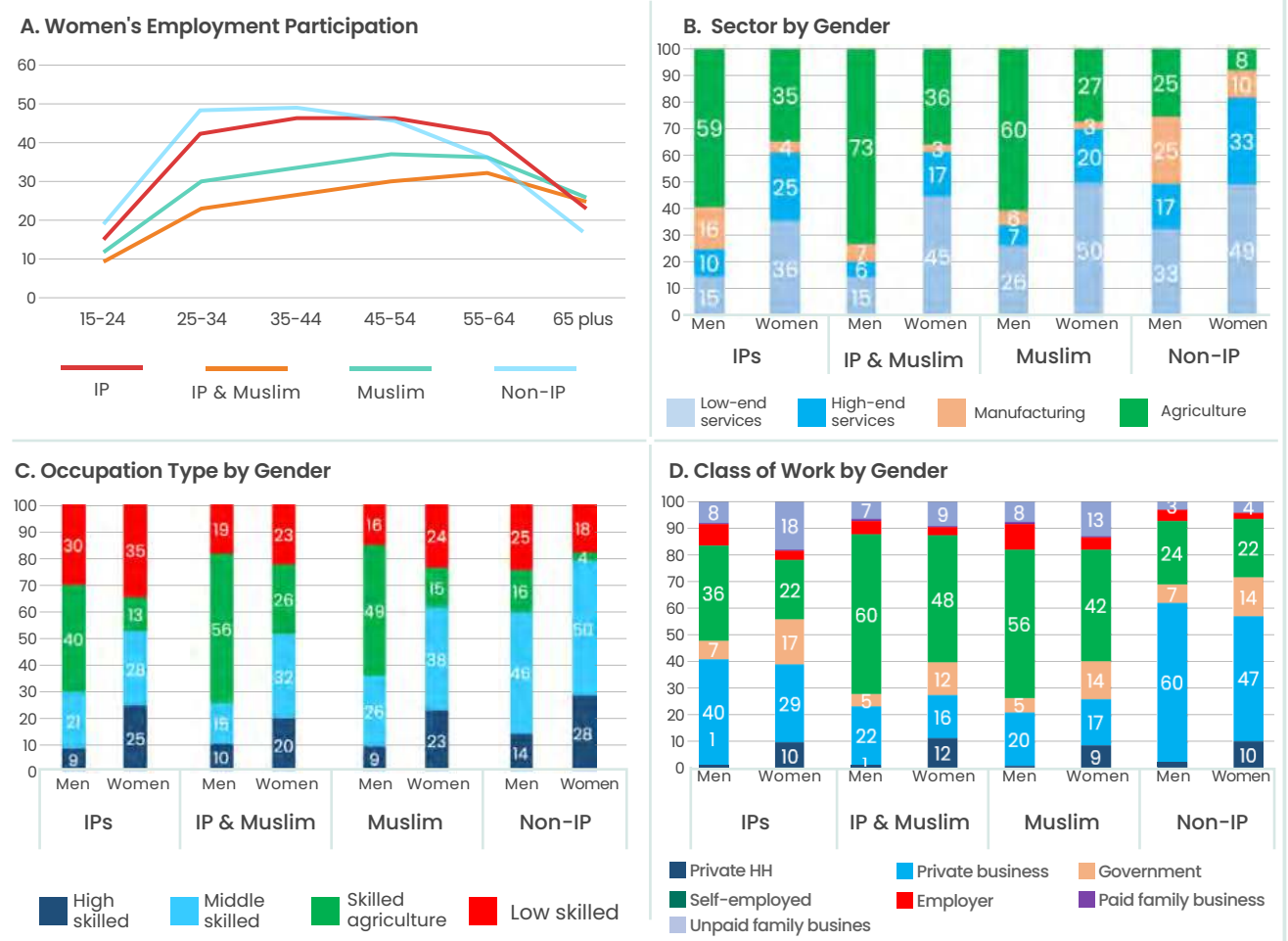
Source: CPH 2020.

Gender gaps in employment participation seem to be larger among IPs and Muslim ethnic groups. Across the country, engagement in gainful activities is much lower among women than men, and it is lowest among women in Muslim ethnic groups. Around 33 percent of working-age IP women and 36 percent of non-IP women are employed in gainful activities, compared to only 21 percent among Muslim ethnic groups and 19 percent among IP & Muslim ethnic groups. Among men, the proportions are considerably higher, reaching 72 percent for IP men and 69 percent for non-IP ones.

When they work, women tend to engage more than men in higher-productivity sectors, but participation is lower among IPs and Muslim women compared to non-IPs. Throughout the life cycle, women from IP & Muslim ethnic groups consistently have the lowest levels of participation in gainful activities until age 65 and above (Figure 41A). Trajectories also vary across ethnic groups, with participation among non-IP women peaking earlier (at 35-44 years) before declining significantly by age 65. In contrast, participation among women in IPs and Muslim ethnic groups peaks later, between the ages of 45 and 54, and continues to hover above 20 percent even after they reach the age of 65. Across all ethnic groups, more women tend to engage in the services sector and less in agriculture (Figure 41B). They also engage more in high- and middle-skilled occupations than men (Figure 41C). However, engagement in more productive sectors and occupations seems to be much lower among women in IPs and Muslim ethnic groups. Among these groups, 25 percent or less of women are in high-end services or high-skilled occupations, compared to more than 30 percent of non-IP women. The proportion of women from IPs and Muslim ethnic groups engaged in low-skilled occupations and agriculture is more than double the rate for non-IP women. Across all ethnic groups, working women tend to engage more than men in unpaid family work, though proportions are higher among IP and Muslim ethnic groups – where the share of women in unpaid family work is more than three times higher than their non-IP counterparts (Figure 41D). On the other hand, across all ethnic groups, women's engagement in government and private household activities, which tend to offer higher pay than self-employment, is higher than men's engagement in those activities. Ultimately, while most of the gender gaps seem driven by gaps in women's rates of participation in economic activities and engagement in income-generating activities, gender disparities in productive jobs by ethnicity remain large.

FIGURE 41

EMPLOYMENT BY GENDER, 2020, PERCENT



Source: CPH 2020.

Note: Employment participation in Figure 27A represents the proportion of women aged 15+ engaged in gainful activities.

ACCESS TO SERVICES

More households from IPs and Muslim ethnic groups lack access to improved drinking water, sanitation, and electricity compared to non-IP groups. About 12 percent of IP households and 18 percent of households from Muslim ethnic groups use unimproved sources of drinking water. This share rises to 23 percent for households from IP & Muslim ethnic groups, only 12 percent of which have their own faucet or piped well (Figure 42). By contrast, 4 percent of non-IP households use unimproved drinking water. Likewise, 24 percent of households from Muslim ethnic groups and 46 percent of households from IP & Muslim ethnic groups use unimproved sanitation facilities, compared to 4 percent of non-IP households. Only 57 percent of households from IP & Muslim ethnic groups have access to electricity for lighting purposes, compared to 95 percent of non-IP households. While many IP households and households from Muslim ethnic groups use inefficient lighting sources such as kerosene and LPG, many use environmentally friendly and renewable sources like solar panels or lamps. Notably, IPs who live in better-off regions in Luzon have higher access to safe drinking water and sanitation than their counterparts in poorer regions – but across all regions, they lag behind non-IPs.

FIGURE 42

ACCESS TO SAFE DRINKING WATER, SANITATION AND ELECTRICITY, 2020, PERCENT

Source: CPH 2020.

IPs and Muslim ethnic groups live in settlements that are less accessible compared to those of other ethnic groups. Households from these groups typically live in barangays that lack quality road networks. Though most (90 percent among IPs and 73 percent among Muslim ethnic groups) claim that they reside in barangays with access to the national highway, only 3 in 5 households from these groups are within 2 kilometers of the highway (Table 8). Distance to government centers (e.g., town/city hall or provincial capital) is another indication of a household's accessibility. In general, about 1 in 10 households from these groups resides in a barangay where government centers are located – about half the share of non-IPs living in barangays less than 2 kilometers from such centers.

These groups also have less access to basic services on average. While access is better for basic facilities, including elementary schools and health centers, access to advanced facilities is more limited. Over 90 percent of IPs and non-IPs live in barangays with elementary schools, but access to high schools is more difficult (Table 8). About half of the population live in barangays with a high school, but areas where IPs and Muslim ethnic groups reside are further from high schools than areas where non-IPs reside. The gap widens at the college level, with only 10 percent of IP households located in barangays with a college, compared to 20 percent for non-IPs.

Nearly all IPs and Muslim ethnic groups reside in localities with barangay health centers, but only a handful have access to public hospitals. About 8 in 10 IPs and non-IPs reside in barangays with a health center. However, the services provided in these facilities are very basic (Table 8). Hospitals that offer more general, wider and sophisticated health services are accessible to only 10 percent or less for IPs and Muslims in their barangays compared to 17 percent of non-IPs.

Markets and financial establishments are less accessible to IPs and Muslim ethnic groups. Given that such places of commerce are typically located in urban centers, they are often quite distant from IP and Muslim communities. Only 10 percent of IPs and 20 percent of Muslim ethnic groups reside in barangays with a market (Table 8).

TABLE 8

ACCESS TO FACILITIES, PERCENT

Lives in a barangay with...	IPs	IPs & Muslim	Muslim ethnic group	Non-IPs
Accessibility				
Street pattern	68	51	55	84
Access to the national highway	90	64	73	96
Town/city hall or provincial capitol	8	8	9	6
2 kilometers or less from the nearest town/city hall or provincial capitol	9	10	13	20
Education facilities				
Elementary school	95	92	85	90
High school	54	44	40	54
College	10	11	15	20
Library	11	11	12	17
Health facilities				
Barangay health center/station or clinic	94	82	74	91
Hospital	9	10	11	17
Economic infrastructure				
Market place	12	15	18	29
Financial establishment	29	18	21	45
Wholesale and/or retail trade establishment	65	47	53	78
Manufacturing establishment	49	34	40	68
Establishment offering repair services	61	46	46	72
Utilities and communication				
Community waterworks system	78	57	56	85
Post office or postal service	17	6	11	26
Landline telephone system or calling station	19	13	17	57
Cellular phone signal	92	87	89	98
Recreation facilities				
Public plaza or park for recreation	36	28	23	36
Recreational establishment	37	28	25	51
Accommodation and food service establishment	40	27	33	60
Establishment offering personal services	37	26	32	59

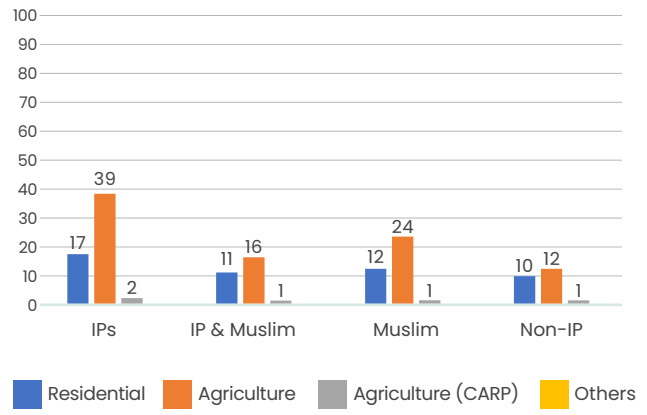
Source: CPH 2020.

HOUSING, LAND, AND ASSETS

More IP households own residential land and have purchased their housing than non-IP households. Larger shares of IP households (17 percent), households from IP & Muslim ethnic groups (11 percent), and households from Muslim ethnic groups (12 percent) own their residential land compared to non-IP households (10 percent). (See Figure 43.) Likewise, about 51 percent of IP households report having purchased their housing, compared to 45 percent of non-IP households (Figure 44). The majority of households from Muslim ethnic groups acquired their housing through inheritance. Most IP households and households from IP & Muslim ethnic groups that own residential land have a relatively small housing floor area, whereas households from Muslim ethnic groups and non-IP households have a higher share of housing with a floor size of more than 50 square meters.

FIGURE 43

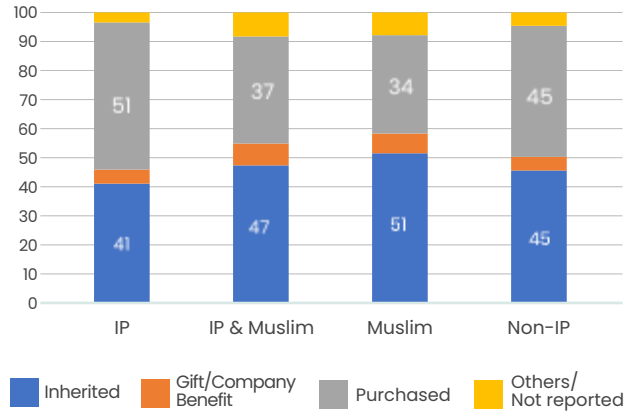
LAND OWNERSHIP, 2020, PERCENT



Source: CPH 2020.

FIGURE 44

HOUSING ACQUISITION TYPE, 2020, PERCENT

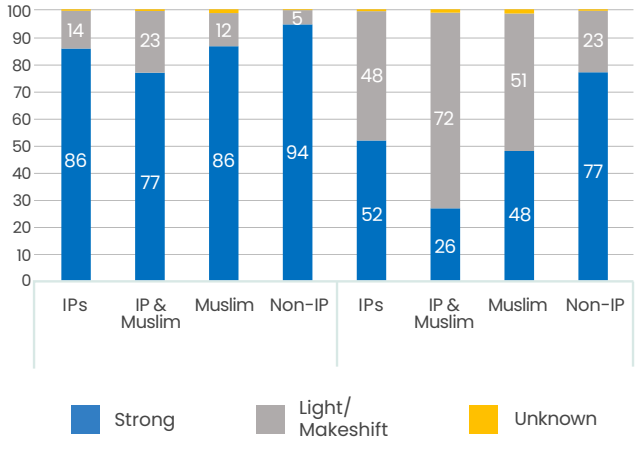


Source: CPH 2020.

IP and Muslim ethnic groups tend to live in poorer housing conditions than the rest of the population. Most members of IP and Muslim ethnic groups own their houses. Very few (less than 3 percent) are informal settlers, though rates are slightly higher (though still below 5 percent) in BARMM and NCR. However, IPs and Muslim ethnic groups have worse housing quality than non-IPs, which have a higher share of houses made from strong construction materials[51] for the roof and outer walls (Figure 45). IP & Muslim ethnic groups have the lowest share of houses made from strong construction materials (77 percent for roof, 26 percent for outer wall) as well as a higher share of houses needing repair (Figure 46). Compared to non-IPs, more IP households have poor flooring materials and an average floor area of less than 10 square meters (about the size of an apartment room). The problem is particularly acute among IP households in MIMAROPA, 34 percent of which have an average floor area of less than 10 square meters (Appendix B, Figure B2). Overall, about 60 percent of IPs and Muslim ethnic groups have a floor area of less than 50 square meters (about twice the area of a parking space), despite having relatively large households. Housing conditions have implications for households' resilience to climate events as well as hygiene-related health indicators (Figure 45).

FIGURE 45

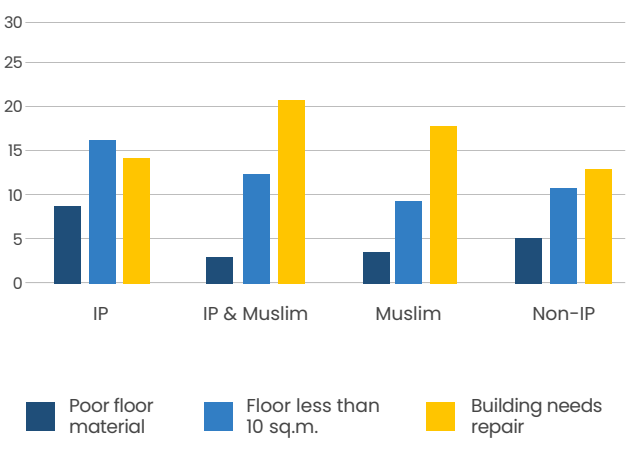
ROOF AND WALL MATERIAL, 2020, PERCENT



Source: CPH 2020

FIGURE 46

HOUSING CONDITIONS, 2020, PERCENT



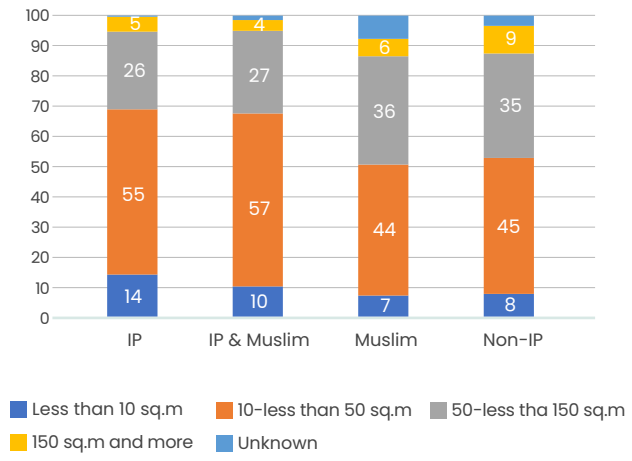
Source: CPH 2020

[51] 'Strong material' as defined by PSA: https://psa.gov.ph/press-releases/id/164828.

A considerable share of IPs and Muslim ethnic group households own their agricultural land, with most household heads working in the agricultural sector. About 39 percent of IP households own their agricultural land, compared to 12 percent for non-IP households. Most of these households are found in CAR and Davao Region (Appendix B, Figure B3). Agricultural land ownership is beneficial for ethnic groups, as 69 to 76 percent of household heads are part of the agricultural sector – compared to 47 percent of non-IP household heads (Figure 48). Across all ethnic groups and non-IPs, less than 2 percent of households acquired their agricultural land through the Comprehensive Agrarian Reform Program (CARP).

FIGURE 47

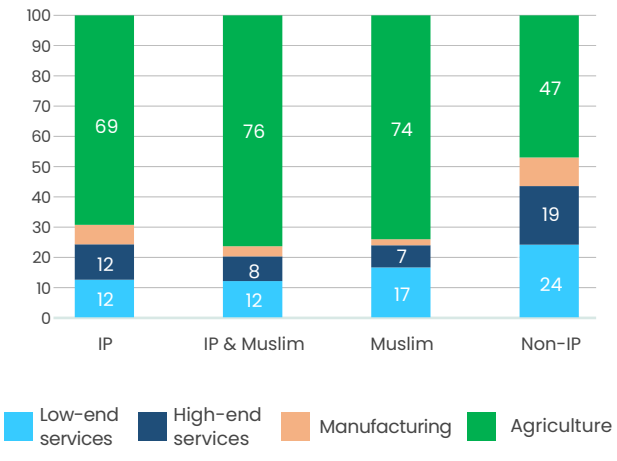
FLOOR AREA OF HOUSEHOLDS WITH OWN RESIDENTIAL LAND, 2020, PERCENT



Source: CPH 2020.

FIGURE 48

KIND OF BUSINESS/INDUSTRY OF HOUSEHOLD HEADS WITH OWN AGRICULTURAL LAND, 2020, PERCENT



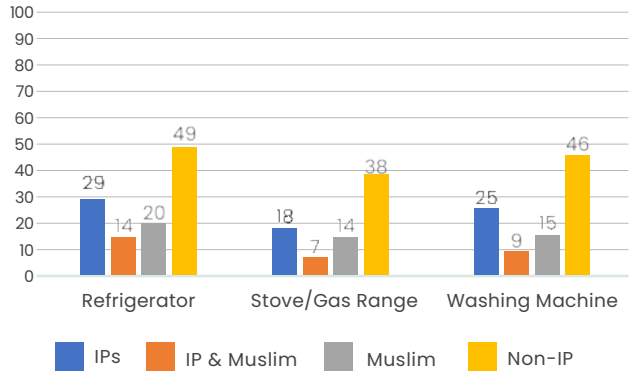
Source: CPH 2020.

Vehicle ownership is low among IPs and Muslim ethnic group households compared to non-IP households. Only eight percent of IPs and three percent of IP & Muslim ethnic group households own a four-wheeled vehicle, though 36 percent and 25 percent, respectively, own a motorcycle or tricycle. These ownership rates are lower than among non-IP households, of which 12 percent have four-wheeled vehicles and 41 percent have a motorcycle or tricycle.

IP & Muslim ethnic group households have fewer household appliances and electronic goods than non-IP households. Only 14 percent of IP & Muslim ethnic group households own a refrigerator, seven percent own a stove or gas range, and 9 percent own a washing machine (Figure 49). While the ownership shares for these and other appliances are higher among IP households and Muslim ethnic group households, both are lower than the ownership shares of non-IP households. For instance, the gap in television ownership between non-IP households and households from other ethnic groups is 23 percentage points, while the gaps in mobile phone and personal computer or laptop ownership are 13 percentage points and 7 percentage points, respectively (Figure 50).

FIGURE 49

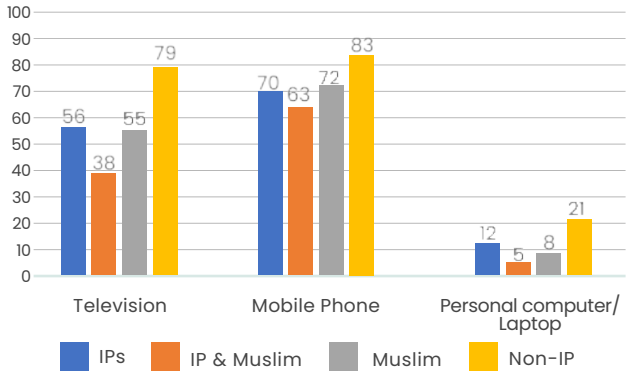
PRESENCE OF HOUSEHOLD APPLIANCES, 2020, PERCENT



Source: CPH 2020.

FIGURE 50

PRESENCE OF ELECTRONIC GOODS IN THE HOUSEHOLD, 2020, PERCENT



Source: CPH 2020.

HORIZONTAL INEQUALITY BETWEEN ETHNIC AND GEOGRAPHIC GROUPS

This section examines horizontal inequalities[52] among ethnic and regional groups across various living condition indicators to better understand the disparities in well-being at both national and subnational levels. Using the Group Coefficient of Variation (GCOV)[53], we estimate horizontal inequalities (i.e., inequality between groups and measured by using monetary or non-monetary welfare indicators) between the four salient ethnic groups considered in the previous sections —IPs, IPs & Muslims, Muslims, and non-IPs —alongside regional disparities across various spatial levels—regions, provinces, and municipalities. The analysis includes several indicators spanning education, health, and access to economic and infrastructure services. Tables D1 and D2 in Appendix D show the variables definition and descriptive statistics of the indicators used. The aim of this analysis is to evaluate disparities in well-being among ethnic groups, referred to as ethnic inequality, and geographic regions, designated as spatial inequality, and to explore potential correlations between these inequalities. It also investigates the relationship between these horizontal inequalities and monetary welfare— measured using poverty headcount, income Gini coefficient, and household per capita income— to provide insights on how these horizontal inequalities may affect well-being in the Philippines, and on the ethnic and spatial dimensions that matter for more inclusive welfare.

Horizontal inequality measures reveal significant disparities among ethnic groups in various well-being dimensions. These disparities are particularly stark in access to essential services and infrastructure, such as internet connectivity[54], landline telephone systems, markets, high schools, colleges, and improved sanitation (Table 9). Education also sees significant disparities, primarily in terms of years of schooling.[55] At a national level, inequality between ethnic groups in access to basic infrastructure ranges from 12 to 28 percent, while disparities in years of schooling and access to improved sanitation hover around 10 percent. Inequalities in access to electricity—especially when considering solar energy for lighting—and safe drinking water are less pronounced, varying from 3 to 9 percent. Ownership of mobile phones, birth certificates, and rates of teenage pregnancy exhibit moderate disparities, whereas literacy, school attendance, and female and youth employment show relatively low inequalities, each less than 5 percent. The substantial inequality in agricultural employment reflects the concentration of IPs and Muslims in this sector. Ethnic inequality indicators underscore the significant lower socio-economic status and disadvantaged circumstances faced by Muslims and IPs.

[52] Horizontal Inequality is inequality among two or more groups, in contrast to the more common understanding of inequality as among individuals. Groups could be created based on location, ethnicity, religion, race and it can be measured using monetary and non-monetary welfare indicators.

[53] The main measures used to estimate horizontal inequality in the literature are the Group Gini index (GGini), the Group Theil index (GTheil), and the Group Coefficient of Variation (GCOV) (Mancini et al., 2008; Stewart et al., 2005, 2010; McDoom et al., 2016, 2019; Tetteh-Baah al., 2024)(See Appendix D for further details). For this analysis, we have opted to use the GCOV as our primary measure of horizontal inequality. However, we also estimate horizontal inequalities using the GTheil and the GGini to check the robustness of the findings across different inequality measures (see the Appendix for further details). All three measures yield highly correlated estimates of horizontal inequality, with a correlation coefficient of 0.9 across measures.

[54] Internet connectivity is measured using two variables: access to mobile broadband network at home (internet) and use internet at home (internet(home)). Both measures show similar levels, and the former is used in the empirical regressions.

[55] With the exception of years of schooling, the levels of horizontal inequalities are comparable across all analyzed indicators. The scales of measurement for these indicators are uniform, using dummies, except for years of schooling.

Groups classified as both IPs & Muslims and those Muslims alone consistently rank lowest across all well-being indicators, with the most significant disparities evident in education and access to infrastructure. Notably, IPs & Muslims are less affluent than Muslims, who, in turn, are less well-off than IPs alone. For instance, as can be seen in Table D2 in Appendix D average years of schooling are substantially lower for IPs & Muslims (6.3 years) and Muslims (7.3 years) compared to IPs (8.3 years) and non-IPs (10.5 years). Similarly, access to improved sanitation is significantly lower for IPs & Muslims (48 percent) and Muslims (68 percent) compared to IPs (89 percent) and non-IPs (94 percent). Access to high schools, colleges, internet, and markets also exhibit significant disparities, with non-IPs enjoying over 10 percentage points higher access compared to IPs and Muslims, and gaps potentially reaching up to 25 percentage points with IPs & Muslims.

TABLE 9

BETWEEN GROUPS INEQUALITY, 2020

	Philippines	Mindanao	Visayas	Luzon		Philippines	Mindanao	Visayas	Luzon
Years of schooling					Improved water				
Ethnicity	10.1	19.3	3.4	3.5	Ethnicity	5.2	8.3	1.8	3.0
Region	11.3	11.7	5.6	8.5	Region	5.1	8.0	1.0	3.1
Province	13.4	15.8	11.1	9.5	Province	6.0	9.3	2.3	3.9
Literacy					Improved sanitation				
Ethnicity	2.5	4.4	0.8	0.9	Ethnicity	9.6	18.8	1.6	2.6
Region	1.9	3.2	0.6	0.6	Region	8.4	16.1	0.5	3.1
Province	2.1	3.6	0.9	0.7	Province	10.4	19.1	5.4	4.2
Attendance					Electricity				
Ethnicity	4.1	8.2	0.8	0.9	Ethnicity	8.8	15.0	2.6	3.7
Region	4.4	7.4	1.1	2.8	Region	8.1	12.2	1.4	4.8
Province	4.9	7.6	2.2	3.2	Province	10.8	17.2	5.8	6.8
Female employment					Electricity & solar				
Ethnicity	2.9	7.7	0.7	1.9	Ethnicity	2.6	5.4	1.0	0.8
Region	13.1	10.7	11.3	13.8	Region	2.4	1.9	1.2	1.5
Province	27.2	48.2	18.2	17.3	Province	3.6	4.6	3.7	2.0
Youth employment					Street pattern				
Ethnicity	1.5	2.4	0.4	0.5	Ethnicity	11.6	19.8	4.9	7.3
Region	7.6	4.4	7.7	7.1	Region	16.6	22.9	5.6	12.7
Province	14.4	23.5	10.7	9.3	Province	22.4	29.2	20.0	17.5
Agricultural employment					Hospital				
Ethnicity	57.1	38.4	16.2	58.2	Ethnicity	27.8	36.5	9.3	25.3
Region	68.2	28.0	20.8	93.4	Region	51.3	39.3	40.0	50.9
Province	81.1	45.0	48.8	103.8	Province	76.3	53.1	89.2	76.6
Mobile phone					Market				
Ethnicity	6.7	11.4	2.1	2.0	Ethnicity	15.1	15.4	4.8	19.1
Region	6.8	5.4	2.2	3.4	Region	36.9	13.9	35.2	43.3
Province	8.6	10.8	5.7	4.5	Province	52.9	34.5	53.6	57.3
Internet					Elementary school				
Ethnicity	14.4	23.2	4.1	2.1	Ethnicity	2.5	6.3	2.4	1.6
Region	19.0	19.2	5.5	8.0	Region	6.3	5.7	4.8	6.3
Province	28.2	41.1	23.2	17.8	Province	13.6	7.3	9.5	16.4
Internet (home)					High school				
Ethnicity	19.8	32.1	5.6	5.8	Ethnicity	12.3	21.3	5.6	10.9
Region	27.2	26.7	1.4	15.1	Region	25.2	24.0	32.6	24.8
Province	30.7	38.5	21.1	17.5	Province	39.1	33.6	45.0	39.2

TABLE 9

BETWEEN GROUPS INEQUALITY, 2020

	Philippines	Mindanao	Visayas	Luzon		Philippines	Mindanao	Visayas	Luzon
House repairs					College				
Ethnicity	3.6	4.8	0.9	1.5	Ethnicity	27.1	33.6	16.0	25.1
Region	6.6	3.5	3.3	5.3	Region	52.8	30.4	51.1	56.9
Province	7.5	5.6	5.1	6.0	Province	78.0	53.2	97.6	79.1
Birth certificate					Phone station				
Ethnicity	5.4	9.5	0.7	1.2	Ethnicity	35.0	52.0	4.9	31.7
Region	5.1	8.1	3.5	1.5	Region	55.6	45.0	40.6	49.6
Province	5.5	8.6	3.9	2.0	Province	66.8	92.6	62.7	53.9
Birth registration					Cell signal				
Ethnicity	5.3	9.4	0.7	0.9	Ethnicity	3.1	5.3	1.0	1.8
Region	4.8	8.4	2.2	0.9	Region	3.2	4.4	2.4	1.8
Province	5.0	8.5	2.7	1.2	Province	4.4	6.1	4.2	2.7
Teenage pregnancy									
Ethnicity	7.1	8.5	2.1	4.6					
Region	8.8	5.4	5.2	9.3					
Province	9.8	7.1	6.5	9.8					

Source: CPH 2020

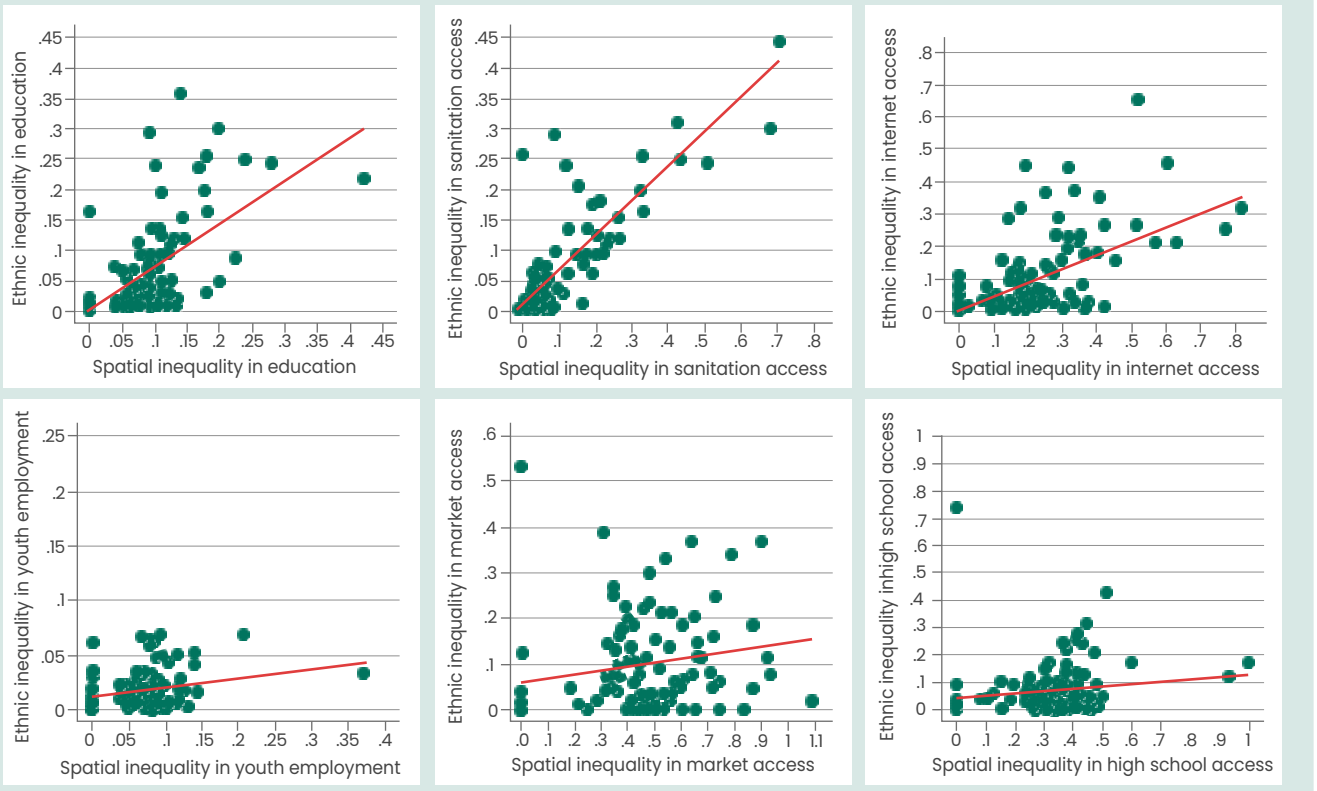
Spatial inequality shows a similar pattern to ethnic inequality, but scores are higher. Pronounced disparities between spatial locations (regions, provinces, and municipalities) mirror the observed ethnic inequalities, albeit to a significantly greater extent.[56] These disparities underscore the importance of birthplace as a determinant of unequal opportunities, particularly affecting indigenous groups who have lower migration tendencies, thus perpetuating poverty and inequality across generations. It is worth noting those dimensions where ethnic disparities are moderate but spatial disparities are high, notably in youth and female employment. While ethnic inequalities for these indicators remain below 3 percent, spatial inequalities range from 8 to 27 percent. The spatial inequality scores highlight substantial gaps between disadvantaged regions like BARMM, Eastern Visayas, and Zamboanga, and prosperous regions such as NCR, CALABARZON, and CAR. In disadvantaged regions, IPs, Muslims and non-IP groups fall behind their counterparts in prosperous regions across various dimensions, notably in access to infrastructure, education (particularly years of schooling), and female and youth employment (Tables 9 and Annex D2).

Ethnic and spatial inequalities intersect, but not consistently. There is a strong and positive correlation between ethnic inequality indicators at the regional level, and this correlation remains significant but somewhat weaker at the province level. However, the association between ethnic and spatial inequalities is not always significant. While correlations between ethnic and spatial inequalities in various indicators such as education, mobile phone ownership, birth registration, and access to infrastructure services such as improved sanitation and water, electricity and internet are robust and significant, ranging from 0.57 to 0.77, other indicators like female and youth employment, market access, high school and college establishments and hospitals show low and non-significant correlations, often below 0.25 (Figures 51 and Annex D1). This implies that while certain social groups may align along geographic and ethnic lines, this alignment is not always consistent. For example, Muslims and IPs & Muslims are predominantly concentrated in disadvantaged regions such as BARMM and, to a lesser extent, Zamboanga, whereas IPs are dispersed across both privileged regions like CAR and less privileged ones like Northern Mindanao and Caraga. The spatial disparities in living conditions between geographic regions significantly contribute to the observed inequalities between ethnic groups. However, the limited correlation between ethnic and spatial inequality in certain indicators suggests that ethnic belonging can also independently influence well-being outcomes.

[56] These findings are comparable to those of McDoom et al. (2019), indicating an average GCOV of 10 percent nationally for years of schooling, based on 2010 Census data for the Philippines, and significantly greater ethnic inequalities in Mindanao compared to other regions of the country.

FIGURE 51

CORRELATION BETWEEN ETHNIC AND SPATIAL INEQUALITY FOR SELECTED INDICATORS, 2020



Source: CPH 2020

Mindanao stands out with the highest levels of horizontal inequalities among the three main island regions in the Philippines. Comparative analysis of ethnic and spatial disparities across these regions reveals substantially higher inequality indicators in Mindanao compared to the rest of the country. Similar to the national-level pattern, Mindanao shows large disparities in education and access to essential services and infrastructure among ethnic groups. Disparities in education indicators (literacy rates, years of schooling, and attendance), mobile phone ownership, birth registration, and teenage pregnancy rates are particularly pronounced along ethnic lines, surpassing regional and provincial disparities. Specifically, IPs & Muslims and Muslims face significantly lower endowments and access compared to IPs and non-IPs. For instance, while non-IPs in Mindanao have an average of 10.1 years of schooling, IPs & Muslims average only 6.3 years, IPs average 6.9 years, and Muslims average 7.1 years (Tables 9 and Annex D2). Spatial inequality, on the other hand, predominantly manifests at the provincial level, notably in access to infrastructure such as phone stations, colleges, hospitals, internet connectivity, and female and youth employment. These disparities raise concerns, especially given Mindanao's substantial Indigenous population and its history of conflicts.

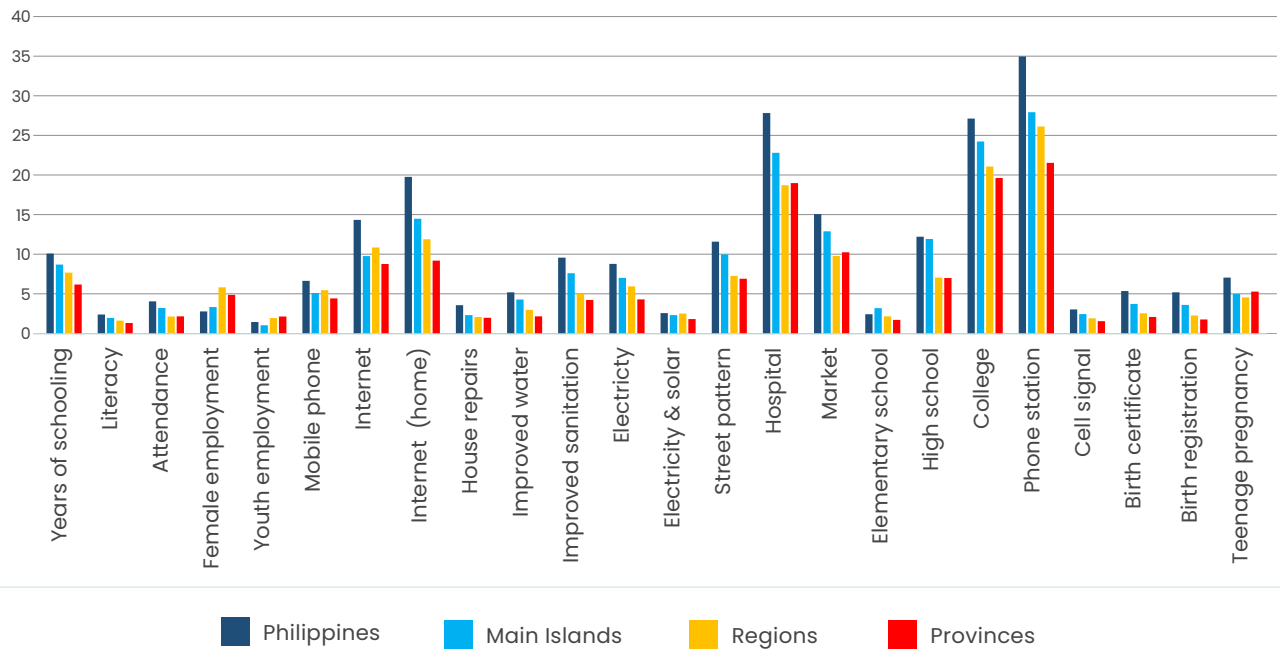
In Visayas, spatial inequalities consistently surpass disparities between ethnic groups. The magnitude of spatial inequality at the province level often far exceeds that observed among ethnic groups (Table 9). For example, it is 12 times higher for phone station access and nearly 10 times higher for hospitals. Similar to Mindanao, Visayas experiences pronounced spatial inequalities in access to infrastructure such as colleges, phone stations, hospitals, and internet connectivity, with inequality estimates ranging from 23 to 63 percent. Notable spatial disparities (in the 10-20 range) are also evident in years of schooling, and female and youth employment.

In Luzon, spatial disparities are also higher than ethnic inequalities. Access to infrastructure, including hospitals, markets, phone stations, internet connectivity, and educational facilities (elementary, high school and college), along with female employment, reveals higher inequality between provinces, ranging from 16 to 79 percent, than inequality between ethnic groups (Table 9). However, significant inequalities between ethnic groups are also evident in access to high school and college facilities, hospitals and markets.

Inequalities between ethnic groups appear to be more pronounced at higher spatial aggregation, underscoring the importance of considering the spatial distribution of ethnic communities within the country for the analysis of ethnic disparities. Figure 52 shows that indicators of ethnic inequality across various well-being measures are significantly higher at the national level compared to subnational levels, and tend to decrease at lower administrative levels. While this trend may imply limited ethnic inequalities at lower spatial divisions, it could also reflect spatial segregation along ethnic and/or religious lines, requiring greater attention to the spatial organization of ethnic groups within the country. McDoom et al. (2016) conducted an analysis of ethno-religious divisions over time and space in Mindanao using the 2010 population census, revealing that although the island group may not appear deeply divided when examining average scores of ethnic divisions at the barangay level, a consideration of the spatial organization of these barangays within Mindanao reveals spatial segregation along ethnic and religious lines, potentially indicating the Island is deeply divided (See Appendix D for further details).

FIGURE 52

INEQUALITY BETWEEN ETHNIC GROUPS ACROSS SPACE, 2020



Source: CPH 2020

Notes: Figures represent mean values of GCOV measures of well-being indicators among ethnic groups across National and subnational spatial/administrative levels.[57]

Ethnic and spatial inequalities appear to be linked to higher levels of poverty. We investigate this relationship by examining the association between ethnic and spatial disparities and three development measures—poverty headcount, income Gini, and household per capita income—using various regression models. To gauge the explanatory power of ethnic and spatial inequalities, we use several model specifications with different control variables and test them across all well-being indicators. Results in Table 10 show associations between poverty and horizontal inequalities in years of schooling, access to improved sanitation, and access to the internet. Additional findings are available in Table D4 in Appendix D. Columns 1-4 of Table 10 present regression estimates of log poverty on between-group inequalities in schooling years, sanitation access, and internet connectivity. In each model, columns (1) and (2) consider ethnic and spatial inequalities separately, column (3) incorporates both variables alongside the number of ethnic groups and population size

[57] Subnational units where any one of the main ethnic groups was entirely absent were excluded.

for each province, while column (4) omits regional fixed effects. The coefficients of the ethnic inequality index in column (1) and the spatial inequality index in column (2) are positive and significant, indicating a positive correlation between poverty and both types of inequality, suggesting that underdevelopment coincides with horizontal inequalities. However, when both measures are simultaneously included in the regression, results vary across the models. In the education years model, the estimate on ethnic inequality remains stable and significant, whereas the coefficient on spatial inequality drops and becomes statistically insignificant, suggesting that ethnic inequality in education is the relatively stronger correlate of poverty. Conversely, in the sanitation and internet access models, spatial inequality remains significant while ethnic inequality becomes statistically insignificant, indicating that spatial inequality is the relatively stronger correlate. Although we control for the log number of ethnic groups and provincial population size in the regressions, similar results are obtained without controlling for these variables. Estimation results reveal no significant association between horizontal inequalities and income Gini coefficients, and negative associations with household incomes. Generally, spatial inequalities in access to basic services and infrastructure emerge as stronger correlates with poverty and income, while ethnic inequalities in education are stronger correlates with poverty and income (see appendix D for more detailed results).

TABLE 10

ETHNIC AND SPATIAL INEQUALITIES AND POVERTY

	Years of schooling				Improved sanitation				Internet			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Ethnic Inequality (GCOV)	2.95***		2.27**	2.01**	1.15		-1.59	1.25	1.46***		0.84	0.69
Spatial inequality (GCOV)		3.07*	2.42	6.1***		1.87**	3.21**	1.9*		1.16***	1.02*	2.76***
Log Nbr of Ethnic grps			0.15	-0.34			0.32	-0.46*			0.23	-0.34
Log population size			-0.29	0.06			-0.35	0.37			-0.33	0.07
Region Fixed Effects	yes	yes	yes	no	yes	yes	yes	no	yes	yes	yes	no
R-squared	0.61	0.62	0.63	0.37	0.6	0.61	0.63	0.2	0.61	0.61	0.63	0.36

*** p<0.01, ** p<0.05, * p<0.1

Source: CPH 2020

Notes: Figures cross-province least square estimates relating the log poverty headcount for each province (from FIES 2021) with ethnic and sapatial inequalities.

CONCLUSION

The findings in this chapter highlight the disparities experienced by IP and Muslim ethnic groups in the Philippines and reveal considerable and worrisome inequalities both within and across ethnic groups. Among the four salient ethnic groups studied, those from IP & Muslim ethnic groups followed by Muslim ethnic groups seem to have the worst living conditions, suffering from lower education and employment, higher food insecurity, less access to basic public services like improved sanitation and drinking water, and electricity, and less access to assets. IPs appear to fare slightly better than Muslim ethnic groups, while non-IPs have relatively better living conditions than the other three groups.

While there are large variations across IPs in terms of living conditions, they remain consistently disadvantaged relative to non-IPs. IPs are heterogeneous by nature, belonging to many different ethnicities and residing in many different locations – comprising 228 ethnolinguistic groups, compared to 23 or less for other groups. While Muslim ethnic groups primarily live in areas where the incidence of poverty is higher than 30 percent, IPs are spread across both poor and better-off areas: more than half live in regions with a poverty rate of less than 20 percent, but about 15 percent live in areas where poverty exceeds 30 percent. IPs living in better-off regions in Luzon, such as CAR and Cagayan Valley, have much higher levels of education and greater access to services than their counterparts in MIMAROPA or SOCCSKSARGEN in Mindanao, with almost double the rates of post-secondary and higher education levels, 1.3 times higher rates of employment in more productive jobs, and 1.2 to 1.5 times higher rates of access to piped water, safe sanitation, and electricity. Even in regions where IPs have better living conditions than their counterparts in poorer areas, however, they continue to lag behind non-IPs.

Horizontal inequality measures reveal significant disparities among ethnic groups and spatial locations in various well-being dimensions, notably in access to public services and education. Inequalities between ethnic groups in access to basic services and infrastructure range from 12 to 28 percent, while inequality in education average around 12 percent. However, access to electricity and safe drinking water, and ownership of assets show more moderate disparities. Spatial inequality mirrors ethnic inequality but show more pronounced disparities across regions and municipalities in access to basic services and infrastructure as well as in female and youth employment. While ethnic and spatial inequalities intersect, the correlation is not consistent as certain social groups may align along geographic and ethnic lines, but this alignment varies. For instance, Muslims and IPs & Muslims tend to be concentrated in disadvantaged regions like BARMM and, to a lesser extent, Zamboanga, while IPs are spread across both privileged areas like CAR and less advantaged ones like Northern Mindanao and Caraga. The spatial discrepancies in living conditions among regions significantly contribute to the observed ethnic inequalities. However, the limited correlation between ethnic and spatial inequality in certain indicators suggests that ethnic identity can independently be associated with well-being outcomes. Ethnic disparities are more evident at higher spatial aggregation, emphasizing the need to consider the spatial distribution of ethnic communities for analyzing inequalities.

Mindanao exhibits the highest levels of horizontal inequalities among the three main island regions in the Philippines. Education and access to essential services and infrastructure show significant disparities among ethnic groups in Mindanao, echoing the national-level pattern. IPs & Muslims and Muslims face notably lower endowments and access compared to IPs and non-IPs, particularly in education indicators like years of schooling. Spatial inequality in Mindanao mainly manifests at the provincial level, especially concerning access to internet, markets, improved sanitation and school facilities as well as employment opportunities. In Visayas and Luzon, spatial disparities consistently exceed disparities between ethnic groups, with notable discrepancies in infrastructure access, particularly in access to high school and college facilities, hospitals, and markets. Spatial inequalities underscore the importance of birthplace as a determinant of unequal

opportunities, particularly affecting indigenous groups who have lower migration tendencies, thus perpetuating poverty and inequality across generations.

Spatial disparities in accessing public services often overshadow inequalities between ethnic groups, yet disparities among ethnic groups in education are more significant than spatial inequalities. Data from the 2020 CPH and the 2023 IP Household Survey, alongside horizontal inequality indicators and regression findings, reveal that both indigenous and non-indigenous communities residing in underserved regions lag behind their counterparts in more affluent areas across various indicators, including internet access, sanitation, education, healthcare facilities, and employment opportunities. Although indigenous groups tend to trail behind non-indigenous groups in these indicators, spatial factors seem to have a more pronounced impact than ethnic identity, suggesting that ethnic disparities are linked to the concentration of certain indigenous communities in underserved and remote areas. Reducing spatial inequalities in public service provision would significantly alleviate disparities between indigenous and non-indigenous groups. However, addressing education and birth registration gaps, where ethnic disparities outweigh spatial disparities, requires targeted policy interventions tailored to indigenous communities.

Ethnic and spatial inequalities appear to be linked to higher levels of poverty. The analysis of the association between ethnic and spatial disparities and poverty headcount shows that ethnic inequality in education is significantly correlated to poverty and has a stronger impact than spatial inequality. Conversely, spatial inequalities in public services delivery, particularly access to sanitation and internet emerge as strong correlates with poverty, with larger impacts than ethnic inequalities.

The lack of birth registration for IP and Muslim ethnic groups can have adverse and long-term consequences on their socioeconomic mobility, limiting opportunities over their lifespan. Around 20 percent of Muslim ethnic group members do not have birth registration and certificates. While this rate is lower among IPs (10 percent), it is even lower among non-IPs (4 percent). The problem is particularly prevalent among the elderly, with more than a third of Muslim ethnic group members aged 65 and older and a fifth of IPs in the same group lacking a birth certificate. Among Muslim ethnic groups, one third of children under 5 also lack a birth certificate. As noted, birth certificates are necessary to help build children's human capital by attending school, receiving immunizations and other healthcare services, and having their rights protected (e.g., against child labor, early marriage, and violence), all of which can critically affect their future job prospects and economic opportunities.

Low levels of education among IP and Muslim ethnic groups limit opportunities for employment in productive jobs, further reinforcing inequalities across ethnic groups. IP and Muslim ethnic groups are less likely to complete high levels of education: about half did not go beyond elementary school, compared to less than a third among non-IPs. As a result, college education remains out of reach for most IP and Muslim ethnic group members. Disparities in education across ethnic groups begin at an early age; compared to non-IPs, IP and Muslim ethnic groups have lower rates of school attendance among 5-9 year olds. With lower levels of education, IP and Muslim ethnic groups continue to rely on less productive sectors and occupations. More than half of working-age IP and Muslim ethnic group members are engaged in agriculture, compared to 19 percent of non-IPs. Only 13 percent of working-age IP and Muslim ethnic group members are engaged in high-skilled occupations, compared to 19 percent among non-IPs.

Analysis of educational attainment and employment outcomes across age groups reveal considerable improvements among younger IP and Muslim ethnic group members, but gaps remain compared to their peers from non-IP groups. Cross-generational improvements in educational attainment are particularly striking among IPs, where 82 percent of 15–24-year-olds have a high school education or higher, compared to 29 percent of IPs aged 65 and above. Among Muslim ethnic groups, 72 percent of 15–24-year-olds have a high school education or higher, compared to 23 percent among those 65 and above. Despite this progress, educational attainment of younger IP and Muslim ethnic group members continue to fall behind that of younger non-IPs, of which 92 percent of 15–24-year-olds have a high school education or higher. Following this pattern, employment outcomes among younger generations of IP and Muslim ethnic groups reveal that they are less engaged in agriculture and increasingly working in services and industry: 64 percent of IPs older than age 50 but only 47 percent of IPs (and 50 percent of Muslim ethnic group members) younger than age 30 are employed in agriculture. However, gaps with their non-IP counterparts remain only 14 percent of non-IPs younger than 30 are employed in agriculture.

Gender gaps in the labor market appear to be larger among IP and Muslim ethnic groups. Even though women in the Philippines have higher levels of education than men on average, their engagement in gainful activities remains much lower, particularly among women from Muslim and IP & Muslim ethnic groups. While 33 percent of IP women and 36 percent of non-IP women are engaged in gainful activities, the rate is only 21 percent for women from Muslim ethnic groups and 19 percent for women from IP & Muslim ethnic groups. In stark contrast, these rates are considerably higher for men, ranging from 65 percent to 72 percent across ethnic groups. Rates of employment in low-skilled occupations are also higher for women across ethnic groups (except non-IPs), ranging from 23 percent for women from IP & Muslim ethnic groups to 35 percent for IP women. Across ethnic groups, women engage more in wage employment – but also in unpaid family work, with IP and Muslim ethnic group women engaging more in unpaid family work than non-IP women. This suggests that, while most of the gender gaps seem driven by gaps in women's rates of participation in economic activities and engagement in income-generating activities, gender disparities in productive jobs by ethnicity remain large.

CHAPTER 3

Ancestral domains, land, and conflict

CHAPTER 3

ANCESTRAL DOMAINS, LAND, AND CONFLICT

For Indigenous Peoples (IPs), land is not merely a commodity; it is a fundamental aspect of their identity, culture, and subsistence.[58] Recognizing and protecting IP land rights is therefore a crucial step in addressing poverty and conflict. However, providing, and upholding land rights for IP communities goes beyond mere ownership. It is about acknowledging historical injustices, preserving culture, promoting environmental stewardship, and taking a vital step toward reconciliation. Granting these rights is also essential for promoting economic development by allowing IP communities to benefit from the resources on their lands. However, IP lands and territories have complex histories of contestation and conflict that stem from historical injustices, competing interests over natural resources, and inadequate legal frameworks.

IPs throughout the world have long faced outside pressures to access their lands and resources, threatening their displacement and the destruction and degradation of the natural resources they depend on – which continues to drive IPs' impoverishment and induce conflict globally. As documented by multiple studies, land has historically been a driver of conflict for IPs and remains one of the root causes of their exclusion, largely due to the persistent effects of land appropriation by colonizers or other non-IP groups.[59] Across developing countries, weak land governance is also often a key driver of poverty and IPs are disproportionately exposed to poverty and conflict.[60] This can create a vicious cycle leading to a range of challenges, including weak job creation and underemployment[61] – which in turn can exacerbate conflict, as landless people without work opportunities are more likely to join armed groups.[62]

Across the country, IPs are the traditional and original occupants of lands and territories collectively known now as Ancestral Domains (ADs). (See box 4.) ADs identify the land and resources that IPs have traditionally used as their areas of domicile and the basis of their economic and social life.[63] The country's experience of colonization during the Spanish and American periods legitimized laws and institutions that systematically deprived IPs of their lands – reducing them to the status of "minorities" in territories where they were once the majority and the original settlers.[64]

[58] Itn this chapter, we use the term IPs to refer to all categories as discussed in previous chapters, that is, IPs, IPs and Muslim IPs. This is because several of the sources used in the empirical analysis do not allow us to unpack across categories of IPs.
[59] World Bank, Inclusion Matters: The Foundation for Shared Prosperity. New Frontiers of Social Policy, Washington, DC, 2013.
[60] UN, Permanent Forum on Indigenous Issues, Report on the ninth session. 2010; UN, Truth, transitional justice and reconciliation processes, Concept Note, Santiago, Chile, 2022.
[61] Ravanera, R, Governance of agricultural lands, ancestral domains, and aquatic resources in the Philippines: CSO Land Reform Monitoring Report in the Philippines 2018, An initiative of the Land Watch Asia Campaign, 2018.
[62] World Bank, Mindanao Jobs Report, Part II. Agrarian Mindanao. Washington, DC., 2023.
[63] Malayang III, B, Tenure rights and ancestral domains in the Philippines, A study of the roots of conflict in: Bijdragen tot de Taal-, Land- en Volkenkunde, The Philippines Historical and social studies 157, no 3, Leiden, 661-676, 2001.
[64] Duhaylungsod L, Rethinking Sustainable Development: Indigenous Peoples and Resource Use Relations in the Philippines, The Philippines: Historical and Social Studies, Bijdragen tot de Taal-, Land- en Volkenkunde, Vol. 157, No. 3, pp. 609-628, KITLV, Royal Netherlands Institute of Southeast Asian and Caribbean Studies p. 618, 2001; Van der Ploeg J, Aquino D M, Minter T, van Weerd M, Recognising land rights for conservation? Tenure reforms in the Northern Sierra Madre, the Philippines, Conservation and Society, vol. 14, no. 2 (pp. 146-160), pp.150-151, 2016.

BOX 4

DEFINITION OF ANCESTRAL DOMAINS IN THE PHILIPPINES

The IPRA defines Ancestral Domains as all areas generally belonging to Indigenous Cultural Communities (ICCs)/IPs comprising lands, inland waters, coastal areas, and natural resources therein, held under a claim of ownership, occupied or possessed by ICCs/IPs by themselves or through their ancestors, communally or individually since time immemorial, continuously to the present except when interrupted by war, force majeure, or displacement by force, deceit, stealth, or as a consequence of government projects or any other voluntary dealings entered into by government and private individuals/corporations, and which are necessary to ensure their economic, social, and cultural welfare. It shall include ancestral lands, forests, pasture, residential, agricultural, and other lands individually owned (whether alienable and disposable or otherwise) as well as hunting grounds, burial grounds, worship areas, bodies of water, mineral and other natural resources, and lands which may no longer be exclusively occupied by ICCs/IPs but from which they traditionally had access to for their subsistence and traditional activities, particularly the home ranges of ICCs/IPs who are still nomadic and/or shifting cultivators.

Scarce data has prevented rigorous analysis of how AD land rights relate to conflict and how these issues interact in the Philippines. Only a small number of studies have analyzed these issues in the country – which is perhaps to be expected, given the lack of adequate identification of IPs in traditional data sources that was discussed in Chapter 1 – and very few studies have been attempted in Mindanao. The recent release of new geo-referenced data on violent incidents – made available by the International Alert Philippines' Conflict Alert (CA) initiative – makes it possible to explore these linkages for the first time. Of course, more detailed, and higher-quality data would enable more rigorous analysis. Likewise, the new data on conflict are currently only available for Mindanao; as data collection expands, similar analysis could be conducted for other regions. In the meantime, the analysis included in this chapter begins the effort, while highlighting the scope for future research.

This chapter offers fresh analysis and new findings on the linkages between ADs, land, and conflict in the Philippines, focusing on Mindanao. The first section provides background information, institutional context, and indicative statistics on these issues at the national level, while the second section provides more focused context on Mindanao. The third section presents our analysis, utilizing a novel dataset constructed by merging the new data on conflict with census data and existing Certificate of Ancestral Domains Title (CADT) records. Using mapping and a suite of simple quantitative tools to analyze the patterns and interactions between violent incidents, CADTs, and the share of IPs in a given barangay (the smallest administrative unit available), this effort has three key findings:

a) *In general, conflicts are less likely in barangays with higher shares of IPs;*

b) *Land- and resource-related conflicts are also less likely in barangays with higher shares of IPs; and*

c) *Overall, CADT areas have a lower likelihood for general conflict but a higher likelihood for land-related conflict, particularly in CADTs that experience processing delays.*

These findings add depth and complexity to the current understanding of conflict, poverty, land, and IPs in Mindanao, while offering a useful case study for relevant insights at the national level. They offer policymakers a more nuanced view of these issues, highlight key data gaps, and underscore the need for more research. Furthermore, they show clearly that secure land rights contribute to peace and prosperity.

NATIONAL CONTEXT: HISTORY, REFORMS, AND KEY INSTITUTIONS

In Southeast Asia, the Philippines is considered a pioneer in using stewardship agreements to recognize IP resource management rights and practices. These agreements were established in the early 1980s,[65] and the 1987 Philippine Constitution made important progress towards government recognition of IP rights. In 1997, the IPRA paved the way for formal recognition of IPs' customary rights over their ancestral lands. However, the country has yet to ratify the International Labor Organization (ILO) Convention 169 on Indigenous and Tribal Peoples, which suggests that gaps remain towards fully protecting IP rights under international standards.

Despite legal recognition of their rights over their ancestral lands by the Constitution and the IPRA, one of the primary obstacles faced by IPs is the actual control of their ADs. Although the IPRA paved the way for formal recognition of IP customary rights over these lands, the practical exercise of those rights in resource-rich territories remains restricted and persistently contested. A particular issue is the government's overlapping rights regarding administrative divisions, forest areas, productive agricultural zones, and mineral lands. The governance of ADs is complex, with various laws and regulations leading to conflicting and overlapping mandates. The Philippines has at least eight separate land related laws, with significant overlaps, no clear rules of precedence, and substantive jurisdictional and procedural issues. These land laws fall under the responsibility of five offices in four agencies, which often lack coordination.[66] The IPRA is one of the most recently passed of these laws and is thus constantly challenged by previous laws, generating power dynamics and an uneven playing field that is unfavorable to IPs. The lack of clarity and inconsistent application of these laws perpetuates inadequate land governance, acting as a significant catalyst for conflict and instability in the country. This issue is particularly pronounced in the southern island of Mindanao and Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), where IPs have been disproportionately affected by the vulnerabilities stemming from inadequate land governance.

The institutional context also explains why the National Commission on Indigenous Peoples (NCIP) is not the only government agency involved in the formal ADs process. The IPRA established the NCIP and mandated it as the primary government agency responsible for the formulation and implementation of policies and programs to promote and protect IP rights. Some of NCIP's key mandates are processing and approving CADTs and Certificate of Ancestral Land Titles (CALTs), developing ADs Sustainable Development and Protection Plans (ADSDPPs), and defining the regulatory instruments to implement the Free and Prior Informed Consent (FPIC) process for profit-oriented investments in ADs. Three other government agencies are responsible for bestowing the majority of prior and vested rights found on ancestral lands: (i) the Department of Environment and Natural Resources (DENR), responsible for forest resources including mineral lands and protected areas; (ii) the Department of Agrarian Reform (DAR), in charge of issuing various land tenure instruments to agrarian reform beneficiaries and agrarian reform communities; and (iii) the Land Registration Authority (LRA), whose jurisdiction also covers the registration and titling of lands. NCIP may approve the application of a CADT or CALT, but its eventual registration and titling depends on the subsequent review and issuance of a Certificate of Non-Overlap by DENR, DAR, and LRA. These agencies exercise jurisdiction on three major land types that overlap with IP lands: namely, forest areas (DENR), lands under agrarian reform (DAR), and private lands (LRA). As a result, most ADs are still subject to segregation from these prior and vested rights granted by the government before the IPRA became law. The IPRA even contains a provision on recognizing and respecting these prior claims.[67] The Certificate of Non-Overlap phase has its own share of delays from the complaints and court cases filed against nullification decisions. Nonetheless, NCIP considers its responsibility complete upon its approval of the CADT[68] and only has limited involvement in the process of titling and registration. However, in general the public typically refers to the CADTs registered in the LRA as a basis of ownership. Given these issues, the formalization of IP lands is considered a highly contentious, long, and complex process.

[65] De Vera, David E, Indigenous Peoples in the Philippines: A Country Case Study, Paper presented at the RNIP Regional Assembly, Hanoi, Vietnam, 20-26 August, pp. 1-18, 2007.
[66] These are the Public Land Act of 1936 (Commonwealth Act 141), Forestry Code of 1975 (Presidential Decree 705), Comprehensive Agrarian Reform Law of 1988 (Republic Act 6657), People's Small-Scale Mining Act of 1991 (RA 7076), Local Government Code of 1991 (RA 7160), National Integrated Protected Areas System Act of 1992 (RA 7586), Mining Act of 1995 (RA 7942), and Indigenous Peoples' Rights Act of 1997 (RA 8371). They are implemented by the Land Management Bureau and Forest Management Bureau in DENR, LRA in the Department of Justice, DAR, and NCIP.
[67] Section 56 in IPRA reads: "Property rights within the ancestral domains already existing and/or vested upon effectivity of this Act, shall be recognized and respected." Thus, there is an overlap of IP land rights with prior and vested rights by the government, including government-owned reserves and natural resources.
[68] Cortez, Ian Mico V., Jacob S. Fajardo Jr., Trisha Joyce M. Gonzales Galang, Kianna Areeje Lagrada, Ralph Angelo Rivera, and Lance Angelo J. 2018. Assessment of CADT Delineation and Recognition Process of the NCIP: The Cases of Limay, Bataan and Botolan, Zambales, National College of Public Administration and Governance (NCPAG), UP Diliman, Quezon City, pp. 121-124.

One effect of this complex institutional context is a high level of uncertainty, which is exacerbated by the lack of knowledge about laws meant to protect IPs. Awareness of the IPRA, a legislative act that aims to uphold, protect, and promote the rights of ICCs in the Philippines, is generally low. Results from the IP HH Survey show that IPs have a low level of familiarity with the law: only 35 percent of IP respondents and 27 percent of non-IPs respondents reported being aware of the IPRA.

This complex legal framework has resulted in multiple rights and claims over the same plots of land. Two factors explain the prominence of land disputes in the Philippines, and particularly in conflict-affected Mindanao: (1) the legacy of resettlement and land programs from the 1900s to the 1980s, which mainly affects Muslim populations; and (2) the magnified effects of overlapping legal systems, which affect IP communities and the recognition of their land rights.[69] As a result, land governance is weak in the country but even weaker in Mindanao. An independent evaluation[70] found that Mindanao fares worse than the national averages on a range of land governance indicators, including: land rights recognition, rights to forest, common land and rural land use, public land management, transfer of large tracks of land to investors, public provision of land information, registry and cadaster, and dispute resolution.[71] Such factors contribute to the longstanding grievances over land dispossession in Mindanao that are key drivers of conflict. Moreover, conflict worsens such challenges by undermining whatever rule of law does exist, displacing residents from their land and making property rights even more difficult to secure.[72]

ANCESTRAL DOMAINS (ADs) IN NUMBERS

CADTs and CALTs are two of the primary formal and administrative mechanisms related to ADs. The IPRA treats ADs and ancestral lands as owned by IPs that claim them. The IPRA states that the basis of title of ICCs/IPs over their ADs is Native Title[73] and the CADT is mere evidence of such title. However, ADs are formally recognized in the Philippines through the process of approving CADTs and CALTs under the IPRA, which cover terrestrial, coastal, and aquatic ecosystems. In its recognition of CADTs and CALTs, the IPRA provides a process for formalizing IP claims to land ownership through delineation, judicial validation, and title awarding. Through this process, the IPRA recognizes IP concepts of land ownership, highlighting ADs/land as "private but communal property" and an intergenerational responsibility. This process provides a way for IPs to move from a situation of no formal tenure rights to ownership. CADTs/CALTs refer to titles "formally recognizing the rights of possession and ownership of ICCs/IPs over their ADs/Lands identified and delineated in accordance with the IPRA." CADTs are issued in the name of the claimant community and include all areas of a delineated property (i.e., lands, inland waters, coastal areas, and natural resources therein). CALTs may be issued to individuals, families, or clans belonging to an IP group within an AD, covering land areas such as (but not limited to) residential lots, rice terraces or paddies, private forests, swidden farms, and tree lots.

CADTs represent an enormous amount of land in the Philippines, which creates challenges for their management and administration. NCIP estimates that there are approximately 1,531 ADs in the country, covering an estimated area of nearly 26 million hectares (inclusive of ancestral waters). This represents about

[69] World Bank, Philippines Mindanao Jobs Report, A strategy of Mindanao Regional Development, 2017.
[70] LGI Consultants, Analysis of the influence of land governance on employment creation in Mindanao, Manila and Washington DC, World Bank, 2016.
[71] As reported in World Bank, Mindanao Jobs Report, Part II, Agrarian Mindanao, Washington, DC, 2023 using a stakeholder-driven assessment of selected land governance indicators developed by LGI consultants.
[72] World Bank, Mindanao Jobs Report, Part II, Agrarian Mindanao, Washington, DC, 2023.
[73] Native Title is defined in Sec. 3(l), IPRA, as rights to lands and domains arising from a claim of private ownership by ICCs/IPs from as far back as memory reaches (time immemorial, as defined in Sec. 3[p], IPRA). Said Sec. 3(l) states that these lands and domains "have never been public lands and are thus indisputably presumed to have been held that way since before the Spanish Conquest".

44 percent of all land available in the Philippines. Given the complex land governance regimes existing throughout the country, it is unrealistic that a single law like the IPRA would have uncontested jurisdiction over nearly half the country's land.

Based on NCIP's ADs database, as of early 2023 there were 257 ADs with approved CADTs and only 22 percent of these are fully registered.[74] (See Figure 53). The land under CADTs represents just 20.5 percent of the country's total land area. Mindanao alone has 142 CADTs, representing nearly 42 percent of its total land (Table 11). However, of the 257 CADTs approved by NCIP, only 55 (22 percent) have been fully registered and 202 (78 percent) are still pending registration with the LRA. In Mindanao, only 23 of the 142 CADTs (16 percent) are registered (Table 12). Once approved by NCIP, a CADT application is sent to DENR, DAR, and LRA for the review and resolution of possible overlaps with public and private lands prior to their issuance of a Certificate of Non-Overlap. The lengthy validation process, which often duplicates other claims and rights, has led to the diminution in the size of some ancestral lands once they are approved and titled as CADTs.[75] For example, in one CADT in the town of Subic in Zambales province, the Aeta community lost 31 hectares of their land after revalidation (about 0.7 percent of the original land identified).[76] Despite these overlaps between IP claims and prior and vested rights, NCIP and IP organizations believe that the AD identification, delineation, and approval process needs to take place in order to recover some of the ancestral lands that have been historically taken from IPs. The prior and vested rights present in ADs imply the inevitability of conflict in land claims, which pits IPs claims against the rights held by the government as well as claims of private entities.

It is important to note that ADs also include ancestral waters. ADs encompass not only ancestral lands but also ancestral waters, which are recognized under the IPRA. As of 2022, NCIP has granted 30 CADTs that cover ancestral waters (Figure 54). The inclusion of aquatic resources adds another crucial territorial dimension to ADs. The IPRA upholds the principle of self-determination, allowing IPs to define the boundaries and scope of their ADs, which can extend to both terrestrial and aquatic areas. To secure or reclaim tenure and assert their rights over natural resources within their ADs, some IP groups have initiated mapping initiatives to delineate their ancestral lands and waters. In 1997, the Calamian Tagbanwa communities of Northern Palawan spearheaded mapping activities to facilitate the self-delineation of their ADs and file claims over the land and waters. This marked the first CADT, which included the recognition of ancestral waters (Figure 54).

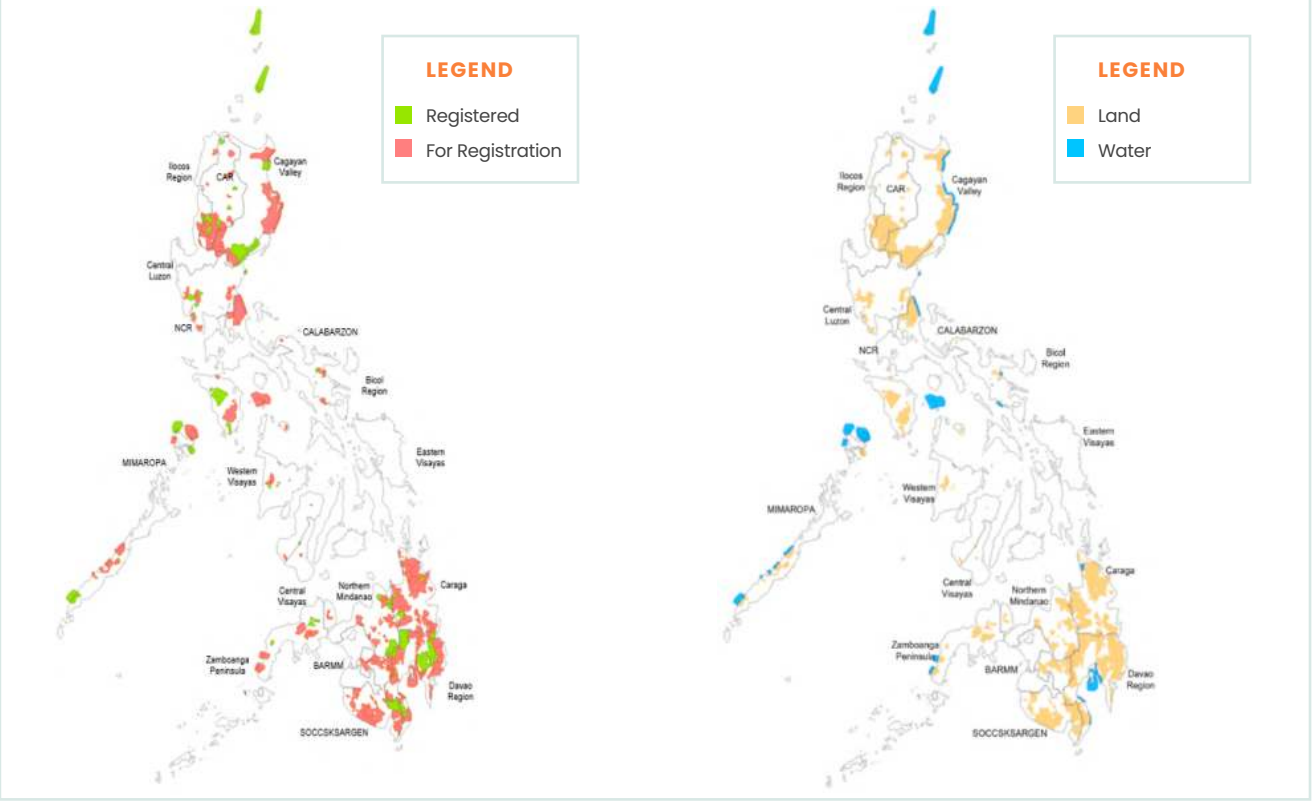
[74] By April 2023, the number increased to 261 CADTs approved by NCIP. Appendix C has additional information on the CADTs, and ADs (including Ancestral Waters) registered by region (including Mindanao). These 257 CADTs cover 5.32 million hectares, inclusive of ancestral waters delineated under 30 CADTs (Table 8).

[75] In Caballero (2004, pp. 3-4), an account is provided of an Ayta group in Bataan whose AD lost about 31 hectares when the CADT was awarded in 2004, after applying for it in 1994.

[76] Caballero E, Ancestral Domain Delineation and Recognition: CADT of Aytas of Bataan, p.3-7, 2004.

FIGURE 53

ANCESTRAL DOMAINS BY REGISTRATION STATUS AND TYPE, 2022



Source: World Bank estimates based on NCIP AD Database 2022.

TABLE 11

CADTs BY REGION, PHILIPPINES 2022

Region	Number of CADTs	Registered	CADT Area (Hectares)	% Total Area (Region)	% Total Area (Country)	IP Rights Holders
CAR	26	7	402,809.98	22.10%	1.40%	288,231
Ilocos Region (R-I)	9	1	60, 401.51	4.90%	0.20%	40,148
Cagayan Valley (R-II)	14	5	973,571.33	36.90%	3.30%	80,252
Central Luzon (R-III)	19	5	184,467.34	8.70%	0.60%	27,981
CALABARZON (R-IVA)	4	0	190,086.67	12.20%	0.60%	14,474
MIMAROPA (R-IVB)	22	7	388,674.95	14.60%	1.30%	59,225
Bicol Region (R-V)	10	3	31,292.12	1.80%	0.10%	24,219
Western Visayas (R-VI)	9	3	50,574.07	2.50%	0.20%	11,483
Central Visayas (R-VII)	2	1	7,988.25	0.60%	0.00%	5,849
Zamboanga Peninsula (R-IX)	13	4	178,273.42	12.20%	0.60%	54,107
Northern Mindanao (R-X)	29	5	354,578.89	20.30%	1.20%	90,918
Davao Region (R-XI)	33	9	971,588.71	51.70%	3.30%	292,539
SOCCSKSARGEN (R-XII)	35	2	678,134.83	37.70%	2.30%	249,711
Caraga (R-XIII)	32	3	843,630.19	45.30%	2.90%	126,803
Total	**257**	**55**	**5,316,072.26**		**20.50%**	**1,365,949**
Total land-Philippines			**25,950,481.01**			
% CADT Areas			**20.5%**			

Source: World Bank estimates based on NCIP ADs Database 2022.

Note: BARMM is not included because BARMM data is not included in the NCIP.

TABLE 12

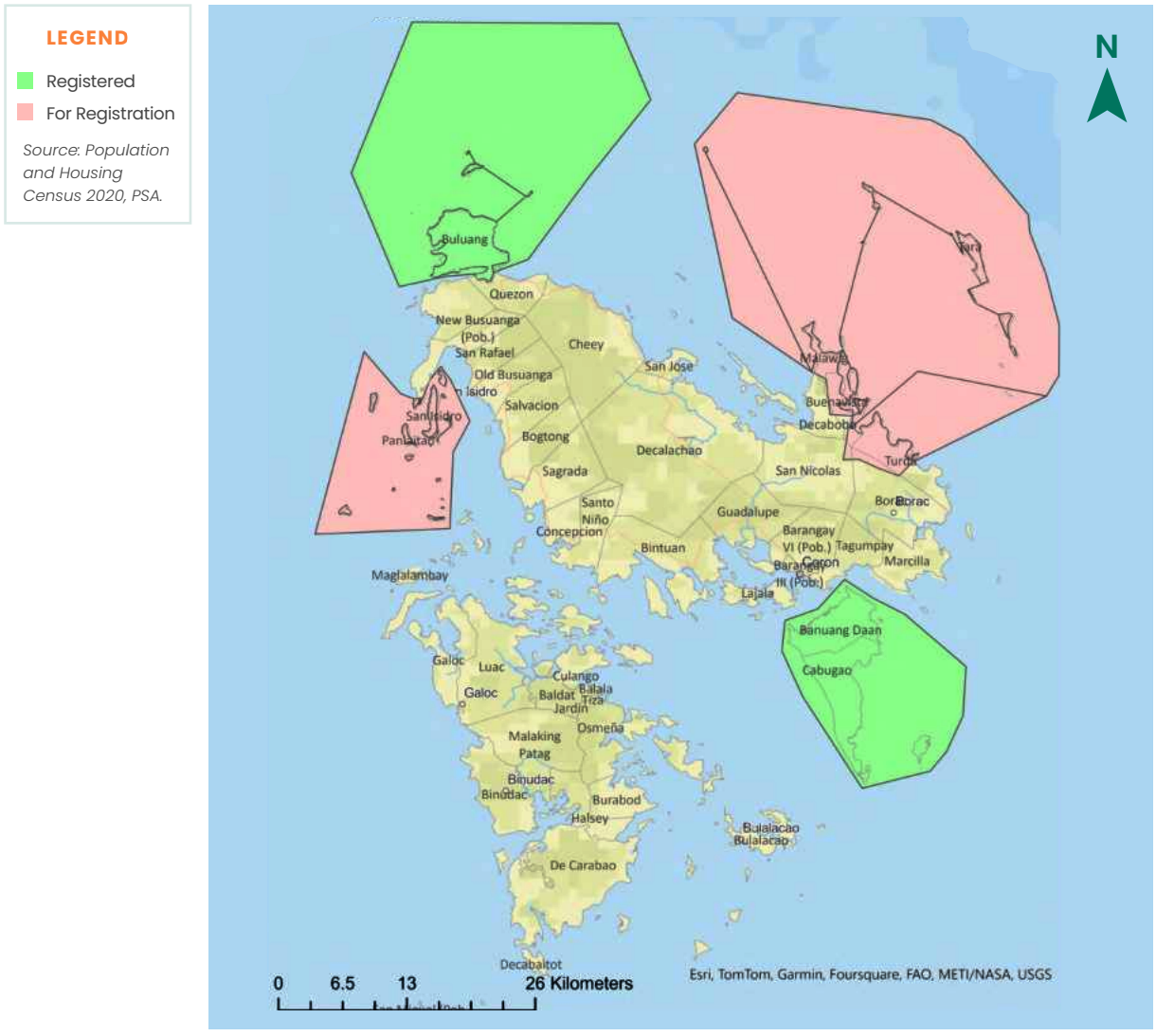
CADTs IN MINDANAO, 2022

Region	Number of CADTs	Registered	CADT Area (Hectares)	% Total Area (Region)	% Total Area (Country)	IP Rights Holders
Zamboanga Peninsula (R-IX)	13	4	178,273.42	12.20%	0.60%	54,107
Northern Mindanao (R-X)	29	5	354,578.89	20.30%	1.20%	90,918
Davao Region (R-XI)	33	9	971,588.71	51.70%	3.30%	292,539
SOCCSKSARGEN (R-XII)	35	2	678,134.83	37.70%	2.30%	249,711
Caraga (R-XIII)	32	3	843,630.19	45.30%	2.90%	126,803
Total	**142**	**23**	**3,026,206.04**	**1.672**	**0.103**	**814,078**
Total area - Mindanao			**7,288,886.46**			
% CADT Areas			**41.52%**			

Source: World Bank estimates based on NCIP ADs Database 2022.

FIGURE 54

CADTs WITH ANCESTRAL WATERS – TAGBANUA AND TAGBANUA CALAMIAN IPs, CALAMIAN ISLANDS, NORTHERN PALAWAN



Source: World Bank estimates based on NCIP AD Database 2022.

CHALLENGES WITH ADs AND CADTs

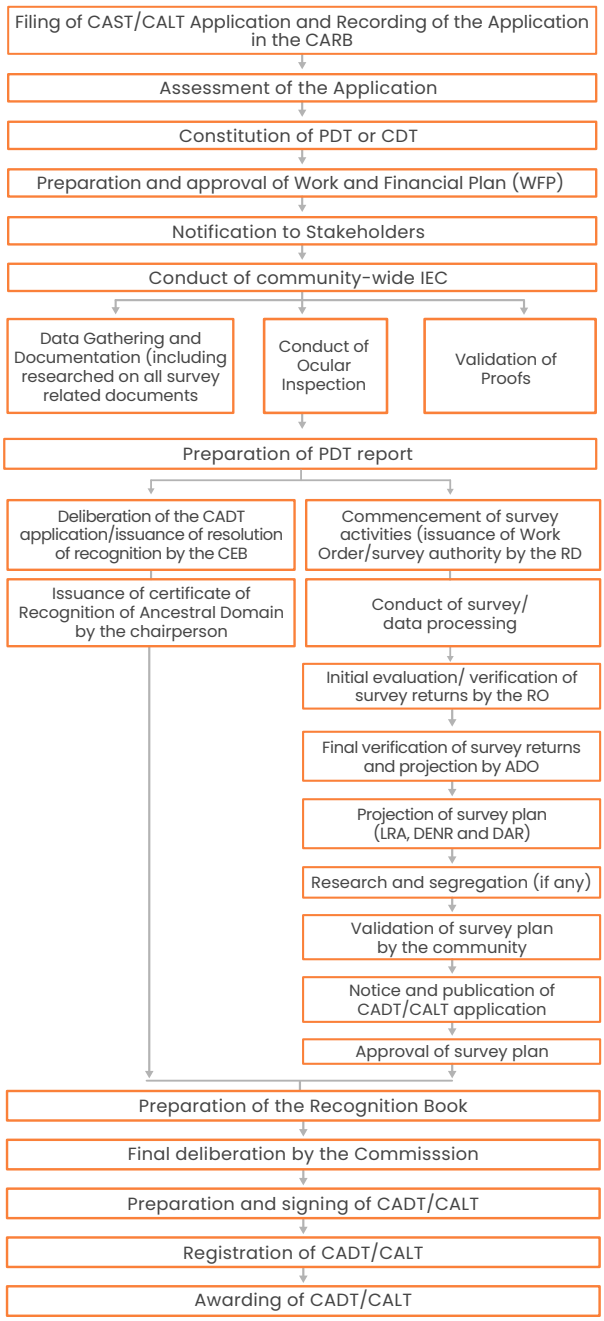
CADT and CALTs registration processes are long and arduous to complete. The registration of ADs remains a burdensome process, with substantial delays in the issuance of CADTs and CALTs and their registration with the LRA (Figure 55). In the literature on CADT processing, for instance, the duration of the process is at least 4 to 15 years.[77] The backlog of claims is partly attributed to NCIP's small budget, which reduces its capacity to close the gap in CADT titling, as well as to coordination issues with DENR, DAR, and LRA. Central, provincial, and regional offices of NCIP remain severely underfunded and understaffed.[78] As documented by some studies,[79] the overlapping and conflicting mandates of government as well as a lack of resources and capacity have also contributed to the slow issuance of CADTs. As a result, many IPs are still struggling to obtain secure access to their lands. Identifying and delineating ADs has proved challenging, leading to conflict with non-IP groups as well as between IP communities.[80]

CADTs protect IPs from harassment, intimidation, and forced displacement. CADT titleholders are entitled to formal consultations by outsiders, including government agencies, local governments, and private sector entities. In addition to protection, CADTs also have enabling functions. In Baguio City in the province of Benguet, IPs have used CADTs to push for, maintain, and integrate IP resource management practices in urban development.[81]

As a result, IPs face hurdles to obtain CADTs – which could be sources of income, jobs, and development. Given that poverty and economic progress in the Philippines has an ethnic component that is connected to the historic lack of development of IP-owned ADs, there is scope for NCIP to reform the way ADs are administrated (namely through ADSDPPs) to ensure that they benefit IP communities. ADSDPPs, a requirement prior to conducting any economic activity within ADs, are complex technical instruments designed

FIGURE 55

ACTIVITIES UNDER THE STAGES OF THE CADT APPLICATION



Source: NCIP, Ancestral Domain Office (ADO) staff.

Note: In addition to ADO, CADT, CALT, DENR, DAR, and LAR, the figure uses the following acronyms: CADT/CALT Application Record Book (CARB), Provincial Delineation Team (PDT), Community Delineation Team (CDT), Information Education and Consultation (IEC), Commission En Banc (CEB), Register of Deeds (RD), and Regional Office (RO).

[77] Cortez et al. 2018, 111-113. Caballero E, Ancestral Domain Delineation and Recognition: CADT of Aytas of Bataan, 2004, pp. 3-7, Oria, Jillaine, Rey Palabon and Ruel Punongbayan, 2022. 'In search of peaceful solutions: Land conflicts and the light of Non-Muslim indigenous peoples', Conflict's Long Game: A Decade of Violence in the Bangsamoro, Lara, Francisco J. Jr. and Nikki Philline C. de la Rosa (eds), pp. 146-164. The range is a minimum because in the studies of Cortez et al. (2018) and Oria e. al (2022), the 11-15 years CADT application is not yet complete.
[78] Cortez I M V, Fajardo J S Jr, Galang T J M, Gonzales K A, Lagrada R A, Rivera L A J, Assessment of CADT Delineation and Recognition Process of the NCIP: The Cases of Limay, Bataan and Botolan, Zambales. National College of Public Administration and Governance (NCPAG), UP Diliman, Quezon City, pp. 121-124, 2018; Rutten, R, Indigenous People and Contested Access to Land in the Philippines and Indonesia, Kasarinlan: Philippine Journal of Third World Studies, 2016.
[79] Drbohlav P, Hejkrlik J, Indigenous Peoples' Struggle for Secure Land Tenure in the Philippines: Case Study of Higaonon Tribe in Opol, Mindanao, Asian Social Science, 13(7), 2017; Caballero E, Ancestral Domain Delineation and Recognition: CADT of Aytas of Bataan, 2004.
[80] Prill-Brett J, Contested Domains: The Indigenous Peoples Rights Act (IPRA) and Legal Pluralism in the Northern Philippines, The Journal of Legal Pluralism and Unofficial Law, 39:55, 11-36, 2007.
[81] Legal informant, April 2022.

to encourage IP-driven approaches in the management and development of land and natural resources within ADs.[82] However, the ADSDPP process is an unfunded mandate for NCIP, resulting in severe limitations to its effective implementation. This is particularly true when ADSDPPs are not properly integrated with other development plans, namely those of Local Government Units (LGUs) and vice versa. Conflicts tend to arise in cases where the territorial coverage of one or multiple LGUs overlaps with an AD.[83] In addition, the challenges of weak capacity among many IP communities for assessing development proposals are compounded by distrust of private sector investors, given IPs' past experience of inequitable contracts. [84] In the current structure of mining royalties in the country, for example, IPs are entitled to receive 1 percent of the supplementary royalty on sales values from operations in their territories.[85] Consequently, IP communities end up not fully benefiting from their lands and the development activities occurring in their territories.

The territorial dimensions of ADs and CADTs are better understood when contrasted against the country's social, economic, and political realities. There are 4.05 million hectares of protected areas in the Philippines. DENR data in 2014 showed that 1.38 million hectares of these protected areas overlap with ADs and 1.44 million hectares overlap with CADT areas.[86] Likewise, approximately 29 percent of the country's key biodiversity areas (KBAs) are in IP territories, with 1.35 million hectares of KBAs overlapping with CADTs. Other parts of the country not listed as protected areas are managed by IP community conservation groups.[87] In terms of natural resources, ADs overlap with 75 percent of the Philippines' remaining forest cover. From this figure, the estimated ecosystem value of ADs with forest resources stands at around Php1.1 trillion, including carbon capture (Php738 billion), water provisioning (Php249 billion), soil conservation (Php14 billion), and non-timber forest productivity (Php86 billion).[88]

IPs, LAND, AND CONFLICT: THE MINDANAO CONTEXT

Social conflict, violence, and poverty are persistent challenges in Mindanao. Several studies have assessed the role of poverty, income redistribution, and the government's peace-building efforts in perpetuating conflict in the Philippines. Since the late 1960s, the island has witnessed widespread conflict between the state and insurgent groups.[90] Additionally, dozens of militia units, political groupings, communities, and clans are often engaged in varying levels of armed conflict.[91] The island also has relatively high levels of poverty. While the poverty rate in Davao (11.9 percent) is lower than the national average of 13.2 percent, the poverty rates in Caraga (25.9 percent) and BARMM (29.8 percent) are well above that average.[92] (See Figure 56.) In Mindanao, conflict zones exhibit higher poverty levels and lower rates of economic growth compared to other regions in the Philippines. These conflict-affected areas are not only characterized by elevated poverty rates but also by the lowest levels of human development.[93]

[82] ADSDPPs require 12 steps and data from multiple sources that need to be updated every five years. ADSDPPs requires, at a minimum, information about existing population, natural resources, existing development projects, land use, economic activity, sources of livelihoods, income, employment, and other concerns such as cultural activities, historical accounts, and appraisal of the quality and quantity of existing natural resources in a given AD.

[83] According to Section 14 of the Revised ADSDPP Guidelines: "In case of conflict with other plans, the ADSDPP as approved by the community shall take precedence over the other plans." In practice, most government agencies do not subscribe to this procedure.

[84] World Bank, Mindanao Jobs Report, Part II, Agrarian Mindanao, Washington, DC 2023.

[85] World Bank, Philippines Mining Sector Diagnostic (MSD) and Philippines Extractive Industries Transparency Initiative (PH-EITI), 2020.

[86] DENR-Biodiversity Management Bureau 2014, 28 in Perez et al. 2018, 59.

[87] ICCA Consortium. 2021. 'Philippines.' Territories of Life: 2021 Report. ICCA Consortium: worldwide, pp. 1-8.

[88] Environmental Science and Social Change Inc. (ESSC), Where are Indigenous Peoples going? 2011. https://essc.org.ph/content/view/473/153/, accessed in April 2023.

[89] Banzon, M, Ideologically Motivated Conflicts in the Philippines: Exploring the Possibility of an Early Warning System, Mimeo, (2005), Edillon, R, Ideologically Motivated Conflicts in The Philippines: In Search of Underlying Causes, Human Development Report, 2005, Capuno, J, What drive the local incidence of crime, shadow economy and resource-related conflicts in Mindanao, Philippines? Evidence of spillover effects, Journal of The Asia Pacific Economy, VOL. 24, NO. 1, 42–65, 2019.

[90] These include the Moro National Liberation Front (MNLF); the Moro Islamic Liberation Front (MILF); Abu Sayyaf; and the New People's Army (NPA), the military wing of the Communist Party of the Philippines (CPP).

[91] Adriano F and Parks T, The Contested Corners of Asia: Subnational Conflict and International Development Assistance. The Case of Mindanao, Philippines. The Asia Foundation. 2013; Herbert, S, Conflict Analysis of the Philippines. University of Birmingham, 2019.

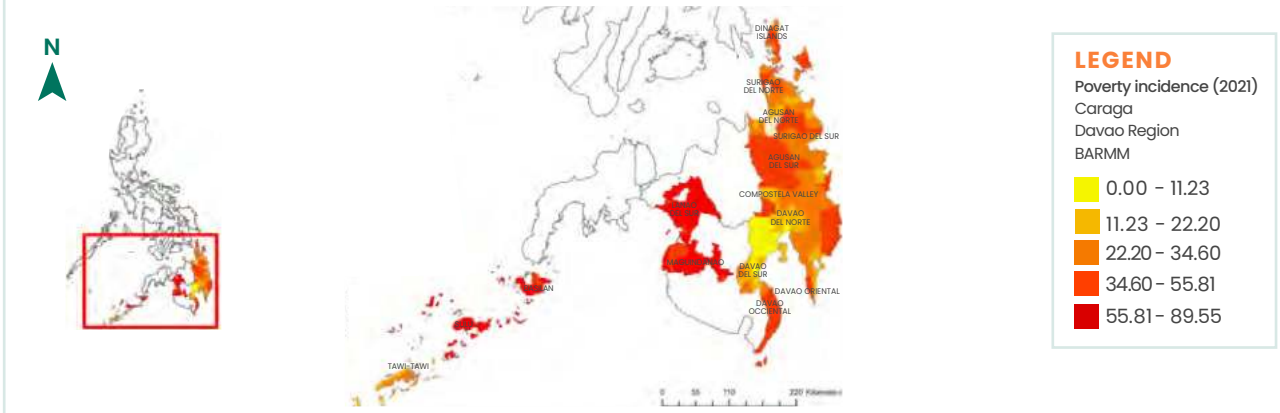
[92] Philippine Statistics Authority, Family Income and Expenditure Survey (FIES), 2021.

[93] Adriano F and Parks T, The Contested Corners of Asia: Subnational Conflict and International Development Assistance, The Case of Mindanao, Philippines, The Asia Foundation, 2013.

Land issues are key drivers of conflict and poverty, creating a vicious cycle. Some studies[94] report intense, wide-ranging conflict over lands and resources within ADs in Mindanao, leading to loss of life, the displacement of communities, and increased poverty. Across developing countries, such conflicts are frequently due to weak land governance, which also exacerbates poverty. Insecure property rights discourage investments, undermine the government's ability to collect land taxes, and deprive the poor of a critical asset base.[95] This constitutes a vicious cycle, as insecure property rights lead to weak job creation, food insecurity, limited access to essential services, low productivity, and underemployment – and poor individuals without land or work opportunities are driven to join armed groups to survive or seek social status.[96]

FIGURE 56

POVERTY INCIDENCE (%) IN CARAGA, DAVAO, AND BARMM, 2021



Source: World Bank estimates.

These factors complicate the prevailing view of how conflict, poverty, land, and IP issues interact in Mindanao. A small but notable number of studies have already shown that establishing laws to protect ADs does not automatically resolve conflict – much less promote social justice or sustainable resource use.[97] Some authors have noted[98] that conflicts in Mindanao often persist after land titles are awarded, highlighting a case study from Lianga and Lanuza (Surigao del Sur, located in Caraga region). Likewise, using a case study of the Higaonon Tribe in Opol (Misamis Oriental, Mindanao) other authors[99] have concluded that the mere existence of a legal framework for IP rights does not ensure the security of IPs' land tenure.

Adding to this scarce literature, the analysis presented in this chapter finds that conflict is generally less likely in CADT areas and areas with high shares of IPs – but that CADT processing delays can increase the probability of violence. The analysis uses a range of simple quantitative methods to unpack the links between IPs' presence, CADTs, and the incidence (as well as magnitude and type of) conflict in each barangay. Then, it goes a step further and assesses the various stages of CADT processing (i.e., registered titles, approved but not registered titles, and absence of titles). The results find an association between increased conflict and CADTs that are not registered. To the best of the authors' knowledge, no other study has deliberately analyzed the relationship between IPs, conflict, and the specifics of the CADT process.[100]

Data from three sources is used in this analysis: i) Census of Population and Housing (CPH) 2020 data, which indicates the share of IPs in each barangay; ii) new geo-referenced data from CA, indicating the number of violent incidents in each barangay from 2011 to 2020; and iii) geo-referenced CADT information from the NCIP. The data from these sources was then overlapped to determine where violent incidents occurred, and specifically whether they occurred inside or outside of ADs.

[94] Malayang III, B, Tenure rights and ancestral domains in the Philippines. A study of the roots of conflict in: Bijdragen tot de Taal- Land- en Volkenkunde, The Philippines Historical and social studies 157, no: 3, Leiden, 661-676, 2001 and World Bank Mindanao Jobs Report, Part 1, Washington, DC, 2017.
[95] World Bank, Mindanao Jobs Report, Part 1, Washington, DC, 2017.
[96] Ravanera, R, Governance of agricultural lands, ancestral domains, and aquatic resources in the Philippines: CSO Land Reform Monitoring Report in the Philippines 2018, An initiative of the Land Watch Asia Campaign, 2018; World Bank, Mindanao Jobs Report, Part II, Agrarian Mindanao, Washington, DC, 2023.
[97] Prill-Brett, Contested Domains: The Indigenous Peoples Rights Act (IPRA) and Legal Pluralism in the Northern Philippines, The Journal of Legal Pluralism and Unofficial Law, 39:55, 11-36, 2007.
[98] Lara, F and B Franco. Identity-Based Conflicts and the Politics of Identity in Eastern Mindanao, Philippine Journal of Public Policy: Interdisciplinary Development Perspectives, 2022.
[99] Drbohlav and Hejkrlik Indigenous Peoples' Struggle for Secure Land Tenure in the Philippines: Case Study of Higaonon Tribe in Opol, Mindanao, Asian Social Science, 13(7), 2017.
[100] These categories in the Philippines are formally known as "registered" and "for registration."

VIOLENT INCIDENTS IN MINDANAO

The CA database documented 51,026 violent incidents that occurred in Mindanao between 2011 and 2020.[101,102] CA tracks the incidence, causes, and human costs of violent conflict and violent crime based on documentation and reports by the Philippines National Police (PNP) and print media records. However, the data has certain limitations. First, as noted above, CA does not report incidents for all three regions across the full 2011-2020 period.[103] Second, the data do not report the ethnicity of the perpetrator or the victim. As such, it roughly approximates the likelihood of IPs' involvement in a given incident based on whether it took place in a location that can be described as having a high (above average), low (below average), or no presence of IPs. Additionally, incidents in the CA data can be simultaneously recorded as multiple types of violence, such as a robbery that also involved firearm use. To avoid double counting, the analysis only uses the first categorization of each incident (which is assumed to be the incident's dominant feature). Third, CA assigns a large proportion of the incidents as "undetermined" in nature – that is, incidents that cannot be classified, which impacts the precision of some of the results. Nonetheless, some key trends emerge in the data.

Violent conflict in Mindanao has shown a downward trend, with most incidents concentrated in Davao. As shown in Figure 56, violence declined briefly in 2012, which can be attributed to declines in the BARMM after the signing of the Framework Agreement on the Bangsamoro and the fact that there is no conflict data reported for Davao and Caraga after 2015.[104] Despite three subsequent years of increased violence between 2013 to 2015, there was a sharp decline starting in 2016. This might be associated with a switch to the new national administration's "iron fist" approach (as well as the partial coverage in the dataset of Davao and Caraga after 2015). Figure 60 shows that both land- and non-land-related incidents (as well as those with undetermined causes) have declined over time. Of the 51,026 incidents reported in the dataset, 44 percent took place in Davao del Norte, Davao de Oro, and Davao del Sur provinces (Figure 59).

Despite the average person's relatively limited exposure to conflicts and violence, concerns about potential exposure to violence are significant. Based on the IP HH Survey 2023, 49 percent of IPs and over 90 percent of non-IPs in BARMM agree that there are security risks in their neighborhoods. A smaller proportion of IPs worry about clan feuds and land conflicts as their primary concern. In terms of seeking security and justice, respondents primarily turn to community leaders and barangay captains, with the police also playing a significant role. Around 30 percent of IPs and 42 percent of non-IPs in BARMM mentioned they needed legal assistance but could not access it. The main reason for this lack of legal assistance is financial constraints, cited by 32 percent of IPs and 26 percent of non-IPs, followed by fears of intimidation, with 13 percent of IPs and 28 percent of non-IPs expressing this concern.

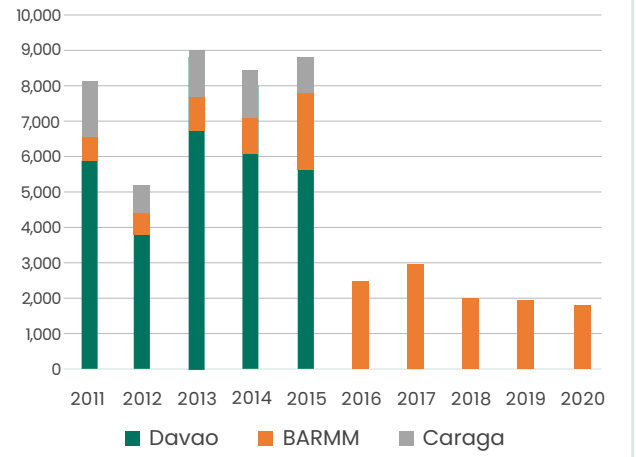
Most violent incidents appear unrelated to land or resources, though many have undetermined causes. The CA database identifies five categories of conflict: violent incidents related to the shadow economy (20 percent of observations), common crimes (18 percent), identity issues (12 percent), political issues (5 percent), resource issues including incidents related to land (3 percent), governance issues (2 percent), and undetermined (40 percent). Figure 56 groups these into three categories: land (part of resource issues), non-land, and undetermined.[105] Notably, non-land violent incidents comprise some 59 percent of all reported incidents, with only 1 percent being definitively related to land. However, the fact that 40 percent of incidents are categorized as having an undetermined cause makes it difficult to draw precise conclusions.

[101] The conflict data from BARMM is available from 2011 to 2020, but only from 2011 to 2015 for Caraga and Davao.
[102] This analysis used the entire conflict dataset for the three regions across time and controls the estimations by year and province. This ensures that unobservable differences between time periods are considered in the statistical analysis – which is relevant because, as indicated, ICA did not collect information on incidents for all three regions across all years.
[103] There are multi-stakeholder validation groups (MSVGs) that conduct discussions to filter and further probe the reported violent incidents.
[104] ICA Dataset, 2014.
[105] Shadow economy-related incidents include cattle rustling, illicit cross-border trade, human trafficking, illegal drugs, and illegal gambling, among others. Common crimes include alcohol intoxication, damage to properties, robbery, child abuse, and other common crimes. Political issues involve rebel groups, political repression, rebellion, elections, and violent extremism, among others. Identity issues are incidents related to gender, inter- and intra-gang rivalries, personal grudges, clan feuds, and religious conflict, among others. Resource issues touch on natural resources, land conflict, water conflict, urban resources, and resource predation, among others. Governance issues deal with corruption of public office, implementation of government projects, executive and judicial decisions and positions, and COVID-19 issues, among others.

Confirming this finding, the IP HH Survey finds that there are relatively few conflicts over AD ownership. Conflict incidents over AD ownership were reported by less than 5 percent of IPs, with particular focus on land subdivision disputes among different owners. In BARMM, 9 percent of IPs reported conflicts related to land ownership, predominantly concerning residential ancestral land.

FIGURE 57

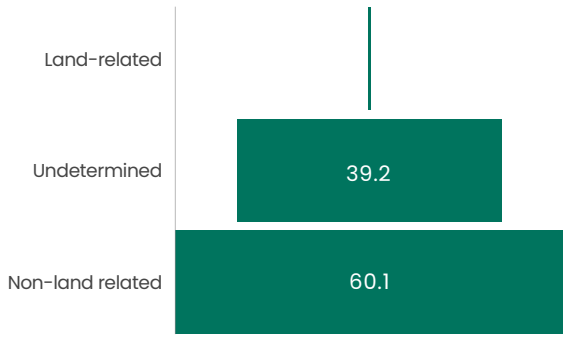
DISTRIBUTION OF VIOLENT INCIDENTS BY YEAR AND REGION (NUMBER OF INCIDENTS), 2011-2020



Source: CA, 2011-2020 from BARMM, Caraga and Davao

FIGURE 58

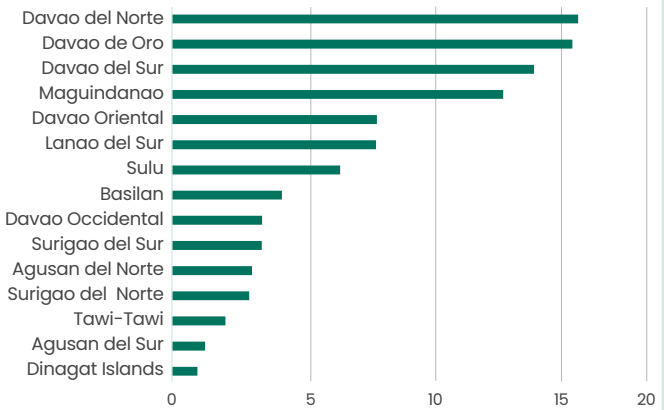
DISTRIBUTION OF VIOLENT INCIDENTS BY LAND, NON-LAND CATEGORIES (% OF TOTAL FOR PERIOD 2011-2020)



Source: CA, 2011-2020 from BARMM, Caraga and Davao

FIGURE 59

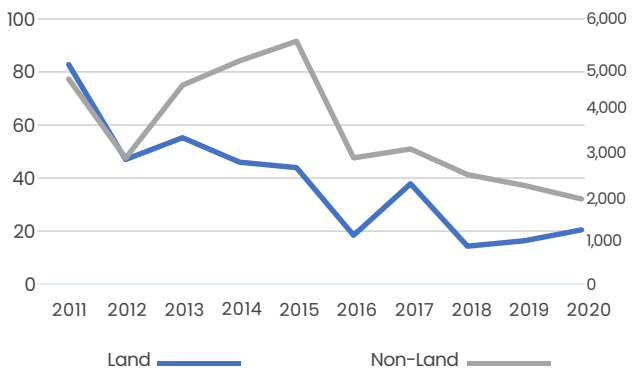
DISTRIBUTION OF VIOLENT INCIDENTS BY PROVINCE (% OF TOTAL FOR PERIOD 2011-2020)



Source: CA, 2011-2020 from BARMM, Caraga and Davao

FIGURE 60

DISTRIBUTION OF VIOLENT INCIDENTS BY LAND, NON-LAND CATEGORIES (% OF TOTAL FOR PERIOD 2011-2020)

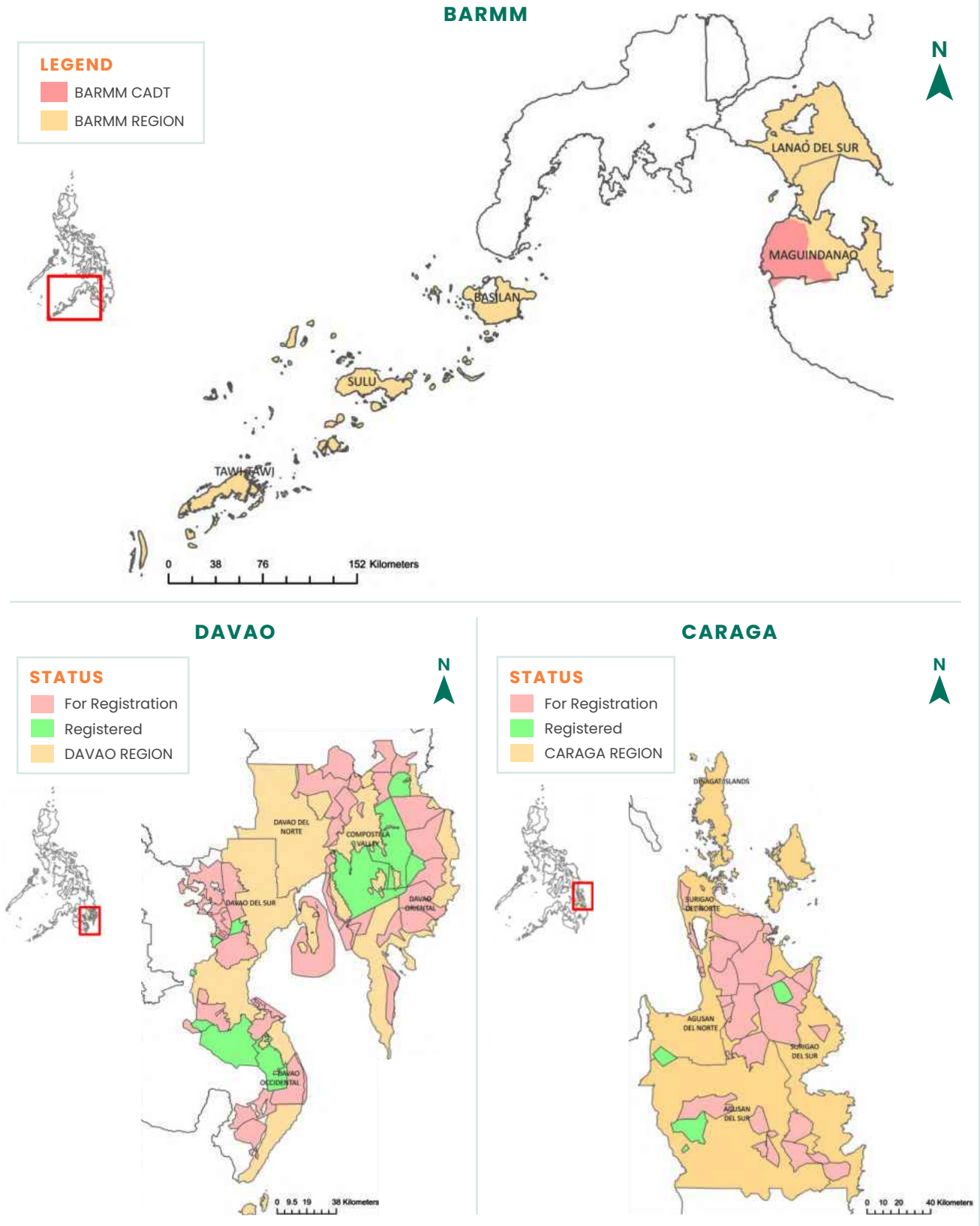


Source: CA, 2011-2020 from BARMM, Caraga and Davao

Figure 59 shows the distribution of CADT areas in Caraga, Davao, and the BARMM, illustrating that the majority of CADTs are not fully registered. This analysis includes 72 CADT areas processed from 2002 to 2022 (one in the BARMM, 33 in Caraga, and 38 in Davao). Critically for the analysis, the figure indicates whether a given CADT area has a registered title (shadowed in green) or approved but not yet registered (shadowed in red). Of the 33 CADTs in Caraga, three are registered and 30 are approved but not yet registered. Of the 38 CADTs in Davao available for this study, nine are registered and 29 are approved but not yet registered. In BARMM, this information is not available for the one CADT in that region.

FIGURE 61

DISTRIBUTION OF CADTs IN THE BARMM, CARAGA, AND DAVAO REGIONS (AS OF 2022)



Source: CADT, NCIP, 2022

Note: Green CADT areas equals registered, and red CADT areas approved but not fully registered, grey (in BARMM) is unknown

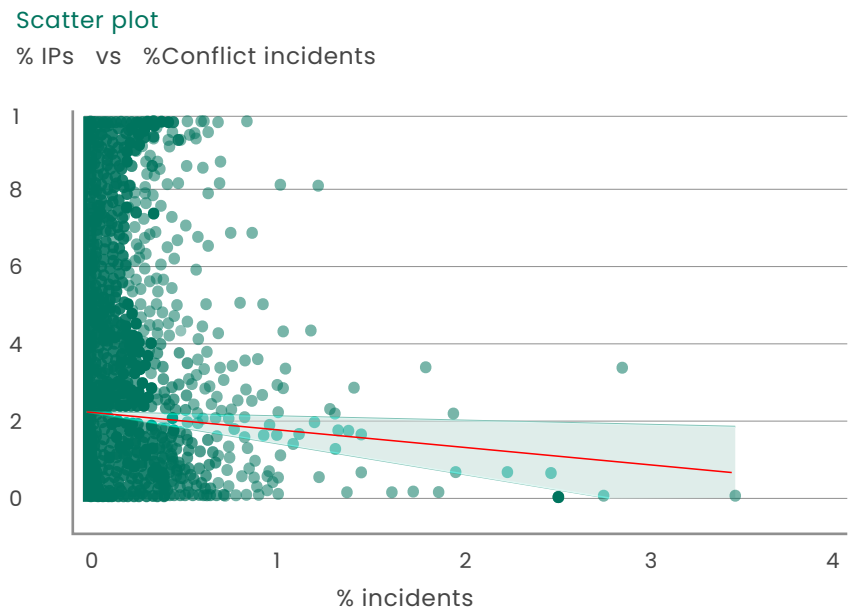
LINKING CONFLICT, IPs, AND CADTs

To take this research further and better understand the reasons for conflict and the interlinkages with IPs, the team overlapped CADT processing and land data with geo-references for conflicts, then analyzed the relationships between land tenure, administration, conflicts, and IPs' presence. For the first time, this research overlays a range of data (i.e., maps, CPH data, CADTs, KBAs, conflict data, sustainability information, and land tenure data) to provide striking evidence on the links between conflicts, ADs, land tenure, governance, and the path towards sustainability.

Result 1: In general, conflicts are less likely in barangays with higher shares of IPs. According to the analysis of the combined 2011-2020 dataset, barangays with higher shares of IPs are associated with fewer incidents of violence. Across Mindanao, higher levels of conflict occurred in areas with fewer IPs as a share of the local population. The scatterplot in Figure 62 visualizes this correlation, with the downward-sloping red line showing the general trend: the higher the share of IPs (vertical axis), the lower the incidence of violence (horizontal axis).

FIGURE 62

PRESENCE OF IPs AND VIOLENT INCIDENTS PER BARANGAY, 2021-2020



Source: Authors' database.

Note: The pairwise correlation of these two variables is -0.0342 and is significant at the 1% level.

Result 2: Land- and resource-related conflicts are less likely in barangays with higher shares of IPs. More specifically, the analysis also suggests that barangays with higher shares of IPs are associated with fewer incidents of land- and resource-related violence. Figure 63 shows that fewer land- and resource-related violent incidents occur in areas with high IP presence (gray bar) compared to areas with low IP presence (orange bar).[106] Note, however, that the fewest incidents of land- and resource-related conflict overall occurred in areas with no IP presence (blue bar), which tend to be urban areas. While this fact alone would seem to suggest a positive correlation between IP presence and violence, Figure 62 has already shown that the correlation is negative. In fact, the more important factor is the decrease in conflict when moving from low-IP areas (orange bar) to high-IP areas (gray bar). Given the large number of incidents in the dataset, this decrease (between the orange and gray bars) drives the statistical correlation. This is called a "non-monotonic" or nonlinear

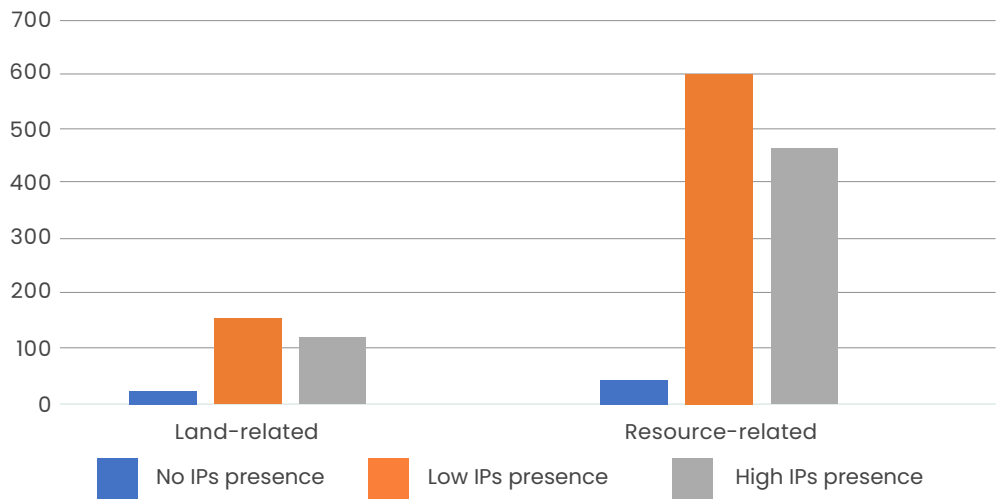
[106] Recall from above that the ICA data categorizes land-related conflict as a subset of resource-related conflict, which also includes conflict over water and other natural resources.

relationship, and the analysis finds that it is robust to alternative ways of looking at the areas where incidents take place.[107] Some might find this result counterintuitive; Box 5 reviews comparable results elsewhere and explains why these findings for the Philippines do not contradict the commonly held view that IPs are disproportionally affected by conflict.

Similar trends are observed for non-land- and non-resource-related conflict, as well as violent incidents with an undetermined cause. As with Figure 63, Figure 64 shows that the highest level of non-land-related, non-resource-related, and undetermined violent incidents occurred in areas with low IP presence. The finding about undetermined incidents is particularly notable, given that this category presumably includes both land- and non-land-related conflict.) Note that the results in Figure 64 are also non-monotonic, but this does not affect the direction of the correlation for the same reasons mentioned above and in Box 5.

FIGURE 63

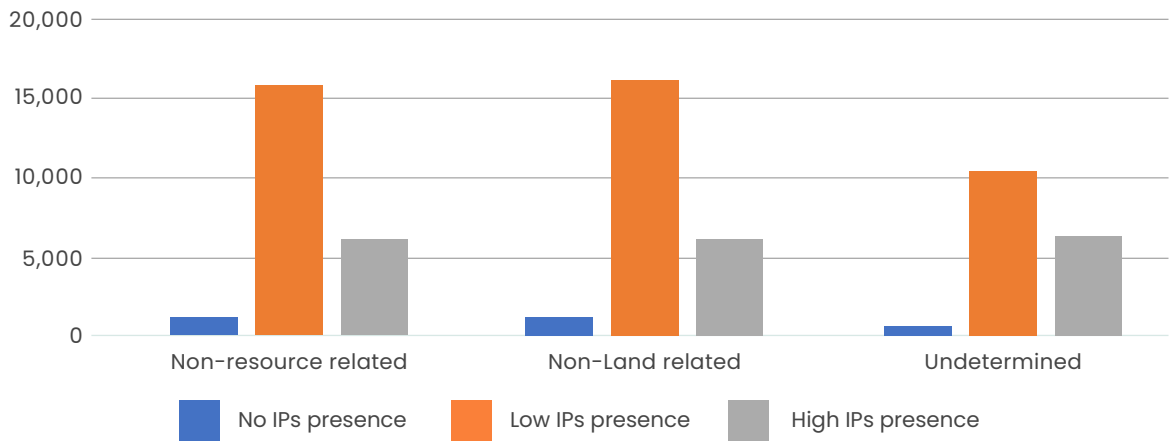
DISTRIBUTION OF VIOLENT INCIDENTS BY LAND-RELATED AND RESOURCE-RELATED CATEGORIES, 2011-2020



Source: World Bank database.

FIGURE 64

DISTRIBUTION OF VIOLENT INCIDENTS BY NON-LAND-RELATED, NON-RESOURCE-RELATED, AND UNDETERMINED CATEGORIES, 2011-2020



Source: World Bank database.

[107] In effect, similar nonlinear relationships were observed in quartiles of barangays ordered by their concentration of violent conflict; those results are available upon request.

BOX 5

CONFLICT AMONG IP POPULATIONS – EVIDENCE AND APPARENT CONTRADICTIONS

Reports from a few high-income countries suggest that crime and violent conflict are more prevalent among IP populations than non-IP populations. In Australia, IPs are more likely to be charged with violent offenses than non-IP Australians.[108] In Canada, IPs are more likely to be victimized: in 2014, 28 percent of IPs aged 15 and older reported having been victimized during the previous 12 months, compared to 18 percent of non-IP Canadians.[109] In the United States, a 2012 report found that American Indians experienced a per capita rate of violence that was twice as high as the average rate experienced by US residents.[110] These findings come from administrative data (such as official criminal statistics), household and perception surveys, and qualitative academic research. Canada, for example, conducts a General Social Survey on Victimization every five years, where detailed information on victims is collected, in the United States, data can be merged from different sources managed by the Bureau of Justice Statistics, the Federal Bureau of Investigation, the Bureau of Prisons, and the US Census Bureau.

Unfortunately, similar findings cannot be presented for the Philippines. To the best of the authors' knowledge, there is no data source that monitors crime, violence, and conflict in a manner that identifies IPs and non-IPs. This state of affairs is common among developing countries; the data that does exist focuses on violence towards IPs or among them but does not typically compare crime rates between IPs and non-IPs.[111] Despite this lack of hard data, there is a widespread expectation that IPs in the Philippines suffer from higher levels of conflict. Amnesty International,[112] for example, has documents specific cases of detentions of farmers that were detained without sufficient evidence. This aligns with global findings by the UN Permanent Forum on Indigenous Populations that IPs are especially vulnerable to conflict due to a vicious cycle of poverty, political marginalization, and discrimination.[113]

The data used in this chapter does not identify the ethnic or racial profile of victims and perpetrators and, as a result, it is not possible to strictly compare conflict incidence within and between IPs and non-IPs. Instead, the analysis compares the incidence of conflict geographically, comparing barangays based on the relative presence of IP populations. The analysis finds that barangays with higher shares of IPs are associated with fewer incidents of violence compared to barangays with low shares of IPs. While this might appear to contradict evidence from other countries, it does not: the analysis also finds that the lowest incidence of conflict occurs in barangays with no IP presence at all. When comparing barangays with no IP presence to barangays with any IP presence (i.e., combining the low- and high-IP presence categories), the more well-known relationship reappears: areas with any IP presence have higher levels of conflict than areas without IP presence. The more novel finding of the analysis is that the link between IP presence and conflict is not linear: conflict increases when moving from no IP presence to IP presence but decreases when moving from low- to high-IP presence. This finding is in line with the notion that larger, more homogenous, and cohesive IP communities see lower levels of conflict.

[108] Wundersitz J, Indigenous perpetrators of violence: Prevalence and risk factors for offending, Australian Institute of Criminology, 2010.

[109] Government of Canada, Indigenous overrepresentation in the criminal justice system, 2019.

[110] Gilmour A D, Farole J, Walter D, Will A, Balmes J F, Native American Statistical Abstract: Violence and Victimization, California Tribal Court-State Court Forum, 2012.

[111] Eagan M, Indigenous Women: The Invisible Victims of Femicide in Mexico, Harvard International Review, 2020; Arellano and Praeli, A look at violence and conflict over Indigenous lands in nine Latin American countries, Mongabay, 2022; Africanews, Crimes against Indigenous People in DRC National Park: rights group, 2022; IWGIA, Violations Against Indigenous Africa: A website documenting historical and contemporary cases of human rights violations against indigenous peoples of Africa, 2021.

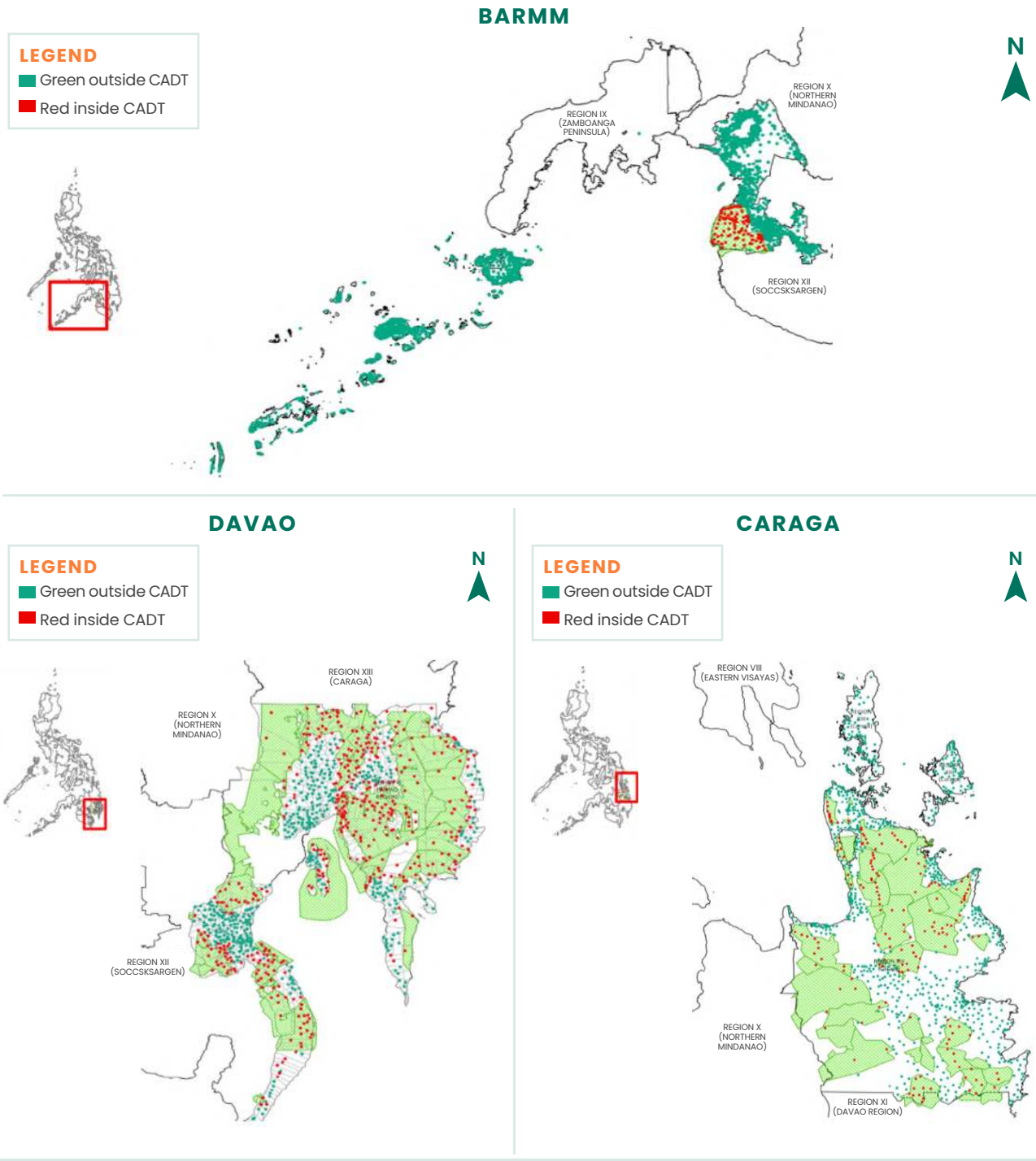
[112] Amnesty International, Philippines: End attacks against Indigenous peoples, 2021.

[113] United Nations Permanent Forum on Indigenous Populations, Conflict, Peace, and Resolution, 2016.

This analysis further suggests that conflicts, in general, are more likely to happen outside CADT areas. Using geo-referenced data, mapping the distribution of violent incidents in Mindanao can show whether they occurred inside or outside a CADT. Figure 65 presents three such maps: one for CADT areas in the peninsular region, one for Caraga, and one for Davao. The light green shading captures the geographical boundaries of CADTs. The red dots indicate violent incidents that occurred inside a CADT area, while the dark green dots represent incidents that occurred outside CADT areas. All the maps consistently show that conflicts are more likely to happen outside CADT areas.

FIGURE 65

CONFLICT DISTRIBUTION BY PROVINCE, 2011-2020



Source: World Bank database.

Result 3: Overall, CADT areas have a lower likelihood for general conflict but a higher likelihood for land-related conflict, particularly in CADTs that experience land titling processing delays. Despite the finding above that conflicts are generally less likely within CADT areas, when unpacking the results by conflict category, the analysis finds that land-related conflicts are more likely to occur inside CADTs. A total of 177 land incidents happened inside CADTs, compared to 118 land incidents outside CADTs; by contrast, there were 6,779 non-land-related incidents inside CADTs compared to 17,072 non-land-related incidents outside CADTs (Table 13). A simple regression analysis that controls for other factors that might affect the correlation confirms this result.[114] These correlation results show that land conflicts are positively correlated with CADTs to a 90 percent confidence level (with a coefficient of 0.003). Likewise, the correlation results also show that non-land-related conflicts are negatively correlated with CADTs to a 99 percent confidence level (with a coefficient of -0.023).

Focusing on a CADT's processing stage further complicates these findings, however, and suggests that the likelihood of land-related conflict is only higher in CADTs that are "approved by not registered." The findings described above refer to analysis of all CADTs, whether they are registered or approved but not registered (i.e., experiencing processing delays). When further dividing the data into these two categories, the correlations change slightly – showing that registered CADTs are associated with less conflict, whether land-related to not, while approved-but-not-registered CADs are associated with more land-related conflict (positive coefficient, although not significant). On the other hand, the results also show that approved-but-not-registered CADTs are also associated with less non-land-related conflict (significant at a 99 percent confidence level with a coefficient of -0.026). Together, these results suggest that non-land conflicts are generally less likely to occur within CADTs but that land-related conflicts are more likely to occur within them. These results should not be interpreted as causal, but they provide rigorous support for the accuracy and strength of the findings.[115]

TABLE 13

DISTRIBUTION OF LAND AND NON-LAND INCIDENTS WITHIN AND OUTSIDE CADT AREAS

	Land-related incidents	Non-land -related incidents
Inside CADT	177	6,779
Outside CADT	118	17,072

Source: World Bank database.

These results are consistent with the literature on CADTs' inability to reduce conflict on their own. As reviewed earlier in this chapter, many authors[116] suggest that awarding CADT status does not necessarily mean that conflict disappears, and one study[117] provides insights into why this is the case. It summarizes

[114] Controls included in the analysis are defined at the barangay level and refer to its demographics, poverty levels, the extent to which benefits from 4Ps social transfer program, inventory of public services provided, and several risk factors for conflict such as presence of mining activities or refugee centers. See Companion paper for more information.

[115] See Companion paper for a list of the sample used, for full regression results, for robustness checks, and for a list of variables used.

[116] Lara, Francisco J. Jr. and Nikki Philline C. de la Rosa. Conflict's Long Game: A Decade of Violence in the Bangsamoro, Lara, Francisco J. Jr. and Nikki Philline C. de la Rosa (eds), 2022; Van der Ploeg, Jan, Dante M. Aquino, Tessa Minter, and Merlijn van Weerd. Recognising land rights for conservation? Tenure reforms in the Northern Sierra Madre, the Philippines, Conservation and Society, vol. 14, no. 2, pp. 146-160, 2016; Prill-Brett, Contested Domains: The Indigenous Peoples Rights Act (IPRA) and Legal Pluralism in the Northern Philippines, The Journal of Legal Pluralism and Unofficial Law, 39:55, 11-36, 2007, Lara, F and B, Franco, Identity-Based Conflicts and the Politics of Identity in Eastern Mindanao, Philippine Journal of Public Policy: Interdisciplinary Development Perspectives, 2022, and Drbohlav P,and Hejkrlik, J, Indigenous Peoples' Struggle for Secure Land Tenure in the Philippines: Case Study of Higaonon Tribe in Opol, Mindanao, Asian Social Science, 13(7), 2017. There are other studies in the Philippines that confirm the underdevelopment of the IPs and its link with conflict but they do not refer to land titling such as: Paredes, O Between rights protection and development aggression: Indigenous peoples, Routledge Handbook of the Contemporary Philippines, Mark R. Thompson and Eric Vincent C. Batalla (eds.), pp. i-474, Routledge: London and New York, pp. 341-351, 2018; Tauli-Corpuz 2010, Victoria. 2010a. Indigenous peoples and Millennium Development Goals, Towards an Alternative Development Paradigm: Indigenous Peoples' Self-Determined Development, eds. Victoria Tauli-Corpuz, Leah Enkiwe-Abayao and Raymond de Chavez, pp. 513-540.

[117] World Bank, Mindanao Jobs Report, Part II, Agrarian Mindanao, Washington, DC, 2023.

several flaws with CADTs, including when a CADT is being registered, multiple and conflicting land titles may be issued by different government bodies (e.g., Certificates of Land Ownership Awards provided by DAR); and required procedures to secure IP communities' free, prior, and informed consent (FPIC) over land issues can be tedious and time-consuming, resulting in processing delays. Frequently, IP communities' rights are also inadequately recognized by other parties, resulting in disregard for CADTs that are still being processed.

These findings do not question the overall notion that formal titling is an effective tool to address land-related conflict, but they underscore the importance of strong land governance. Studies elsewhere have documented the positive effects of formal titling on several development outcomes. In Colombia, titling has been found to increase household income, school attendance, and investments in home improvements while decreasing overcrowding.[118] In Peru, titling has been found to significantly reduce deforestation, implying that awarding formal land titles to local communities can protect biodiversity and promote conservation.[119] In Bolivia, Brazil, and Colombia, evidence specific to IP communities has shown that IP forest management reduces both deforestation and carbon emissions.[120]

Addressing the challenges identified by this analysis will likely require strengthening land governance in Mindanao. NCIP estimates that at the current pace, it would take 50 years to complete land titling in Mindanao. The major reasons for slow CADT implementation are well known – e.g., delays in completion of cadastral surveys, missing or erroneous survey records, high costs for titling, and a range of other cumbersome and costly procedures. But these difficulties can lead to other challenges. The longer titling is delayed after completion of cadastral surveys, for instance, the more complex adjudication becomes ¬– since transfers, subdivisions, consolidations, and even deaths of original claimants often occur.[121] Addressing these issues will require a range of efforts, including broad improvements in the ecosystem of land governance institutions across Mindanao and at the national level.

Such efforts should include enhancing dispute resolution, particularly in cases of overlapping titles. The current legal framework for dispute resolution is overly complex and often risks creating more disputes than it resolves. A key challenge is overlapping titles. As noted above, when multiple titles are issued in areas governed by different land laws, possession of one title is often not enough to secure property rights.[122] Various land agencies frequently create their own independent records and maps without sufficient coordination, results in overlapping titles that become subject to litigation. Prior efforts to address this challenge have not been effective.[123] Overlapping titles also often lead to the underutilization of large tracks of land, since owners' rights (even when there are titles) remain insecure, increasing the risks for further litigation and even violent conflict.[124]

[118] Peña X, Velez M A, Cardenas, J C, Perdomo N, Matajira C, Collective property leads to household investments: Lessons from land titling in Afro-Colombian communities. World Development, 97, 27–48, 2017.

[119] Blackman A, Corral L, Lima E S, Asner G P, Titling indigenous communities protects forests in the Peruvian Amazon. Proceedings of the National Academy of Sciences, 114(16), 4123–4128, 2017.

[120] Blackman A, Veit P, Amazon indigenous communities cut forest carbon emissions. Ecological Economics, 153(C), 56–67, 2018.

[121] NCIP Ancestral Domain Office, 2023.

[122] World Bank, Mindanao Peace Lens, Volume I, Background materials, Washington, DC, 2021.

[123] The joint administrative order approved in 2012 to prevent the overlapping in tenure issuance across different public agencies (DENR, DAR, and the Department of Land Registration) largely failed to correct previous overlapping claims or address the overlapping of legal frameworks; it simply provides a procedure for cross-validation (NCIP 2023).

[124] World Bank, Mindanao Jobs Report, Part II, Agrarian Mindanao, Washington, DC, 2023.

CONCLUSION

This chapter has explored the relationship between conflict and IPs in the Philippines, with particular focus on Mindanao. Its main contribution is to provide more systematic and comprehensive evidence to back up existing qualitative work, which points to a prevalence of conflict inside CADT areas. While most of these studies base their results on case studies and qualitative evidence, this analysis focuses on a broad region (including Caraga, Davao, and the BARMM) and uses a suite of quantitative tools, such as econometric and spatial analysis. The chapter aimed to provide fresh analysis and new insights on the linkages between ADs, land, and conflict in Mindanao, with a specific emphasis on the role that CADTs play in this context.

The analysis found that barangays with higher shares of IPs are associated with less conflict, including land-related conflicts. These findings hold when expanding the scope of the analysis to include resource-related conflict and when looking at conflicts of undetermined cause. These findings do not contradict the widely documented evidence that IPs are disproportionately affected by conflict in many countries. Notably, when focusing only on land conflict and comparing barangays with no IP presence to those with any IP presence (low or high), conflict incidence increases. But when focusing exclusively on barangays with IP presence (comparing low to high), a relationship is observed between higher IP presence and lower levels of conflict. In other words, these findings suggest that there is a non-linear and nuanced link between conflict and IP presence.

However, the analysis also shows that CADT processing delays can increase violence. Only 31 percent of all violent incidents take place inside CADT areas, yet CADTs have a higher likelihood of land-related conflict. This positive correlation with land conflict appears to be entirely driven by CADTs that experience land titling processing delays: compared to areas outside CADTs, approved-but-not-yet-registered CADTs are associated with more land-related conflict and less non-land-related conflict, while registered CADTs are associated with less conflict across both land- and non-land-related conflict.

These findings suggest that the existence of CADTs does not on its own solve land-related conflicts. The results suggest that CADTs can reduce conflict in general, in line with international evidence, and that registered CADTs can reduce land-related conflict. But the problems are that too few CADTs are registered and that approved-but-not-yet-registered CADTs can increase land-related violence. The administrative delays that produce approved-but-not-yet-registered CADTs are, in turn, the result of lengthy and bureaucratic processes that are not backed up by sufficient resources and institutional capacity.

A key challenge is that the process of delineating and recognizing CADTs is complex and time-consuming, resulting in significant delays in issuing and registering CADTs. Addressing these challenges requires improving dispute resolution mechanisms for overlapping titles, ensuring a more inclusive and effective implementation of CADTs and the IPRA, and other implementation improvements. While this chapter has focused on Mindanao, it is likely that similar results could be found in other areas with IP populations across the Philippines.

Addressing CADT implementation challenges must be coupled with stronger land governance. Improvements are needed in multiple areas, such as: rights to forest; public land management; transfer of large tracks of land to investors; public provision of land information, registry, and cadaster; and dispute resolution. These challenges will not be easy to address, but they can no longer be ignored. Success on these reforms promises far-reaching benefits, including increased investment, job creation, income and wealth generation for IPs, and – ultimately – less poverty and conflict.

This study underscores persistent data gaps and the need for more analysis into conflict, land, and IP issues. More and higher-quality data is always needed for better policymaking, but this is especially true for the case of IP issues in the Philippines. For example, there is a strong need for more continuous collection and dissemination of IP-specific statistics. More specifically, data on IPs should include details about their socioeconomic characteristics, and data on conflict should include more explicit details about the victims and perpetrators, including their IP status. Only with more detailed and precise data will policymakers be equipped to reduce conflict, strengthen land governance, and reduce poverty more effectively – for IPs in Mindanao and for all members of Philippine society.

Appendix

Appendix A

LIST OF FOUR ETHNIC GROUP CATEGORIES USED

TABLE A1

LIST OF IPS/NON-MUSLIM GROUPS

Ethnic group	Proportion (%)	Ethnic group	Proportion (%)	Ethnic group	Proportion (%)
1. Abelling/Aberling	0.131	78. Aromanen-Manobo/ Eromanen-Manobo Ilianen*	0.075	155. Baliwon-I-Sadanga	0.122
2. Aeta	0.543	79. Aromanen-Manobo/ Eromanen-Manobo Isoroken*	0.004	156. Baliwon-Miligan	0.002
3. Aeta/Ayta	0.047	80. Aromanen-Manobo/ Eromanen-Manobo Kirenteken*	0.014	157. Bantoanon	0.723
4. Aeta/ Ayta-Abelling/ Abellen	0.044	81. Aromanen-Manobo/ Eromanen-Manobo Kulmanen*	0.017	158. Banwaon	0.156
5. Aeta/Ayta-Ambala	0.030	82. Aromanen-Manobo/ Eromanen-Manobo Lahitanen*	0.008	159. Batak	0.019
6. Aeta/Ayta-Magbukun	0.043	83. Aromanen-Manobo/ Eromanen-Manobo Livunganen*	0.013	160. Batangan	0.879
7. Aeta/Ayta-Mag-Indi	0.065	84. Aromanen-Manobo/ Eromanen-Manobo Mulitaan*	0.013	161. Bontok	0.878
8. Aeta/Ayta-Mang-Antsi	0.068	85. Aromanen-Manobo/ Eromanen-Manobo Pulengien*	0.003	162. Bontok-Majukayong	0.085
9. Aeta/Ayta-Sambal	0.557	86. Ata	0.421	163. Bugkalot/ Ilongot/ Egongot	0.228
10. Agta	0.260	87. Ata/Negrito	0.006	164. Bukidnon	1.654
11. Agta-Isigiran	0.004	88. Ati	0.676	165. Bukidnon-Akeanon	0.414
12. Agta-Agay	0.025	89. Ayangan	1.149	166. Bukidnon-Halowodnon	0.004
13. Agta-Cimaron	0.038	90. Ayangan-Henanga	0.073	167. Bukidnon-Iraynon	0.162
14. Agta-Dumagat	0.016	91. Ayta	0.012	168. Bukidnon-Ituman	0.055
15. Agta-Dupanigan	0.021	92. Blaan*	4.547	169. Bukidnon-Magahat	0.097
16. Agta-Labin	0.006	93. Bago	1.242	170. Bukidnon-Pan-Anayon	0.011
17. Agta-Tabangnon/ Tabangnon	1.127	94. Bagobo	0.736	171. Bukidnon-Tagoloanon	0.007
18. Agta-Taboy	0.020	95. Bagobo Klata	0.224	172. Cagayanen	0.630
19. Agutaynen	0.243	96. Bagobo Tagabawa	0.481	173. Calinga	0.080
20. Alta	0.017	97. Bajau	0.049	174. Cuyonen/Cuyunon	4.136

21. Applai	0.691	98. Balangao	0.200	175. Diangan	0.094
22. Applai-Kachakran/ Kadaclan	0.045	99. Balangao-Lias	0.016	176. Dibabawon	0.528
23. Aromanen-Manobo/ Eromanen-Manobo	0.132	100. Baliwon	0.014	177. Dumagat	0.525
24. Aromanen-Manobo/ Eromanen-Manobo Dibabeen	0.032	101. Baliwon-Fiallig/ Fialika	0.036	178. Dumagat-Edimala	0.013
25. Aromanen-Manobo/ Eromanen-Manobo Direrayaan	0.005	102. Baliwon-Gaddang	0.163	179. Dumagat-Kabolowen	0.014
26. Dumagat/ Remontado	0.141	103. Itneg/Tinguian-Gubang	0.017	180. Kalinga-Biga	0.054
27. Dumagat-Tagebolus	0.003	104. Itneg/Tinguian-Inlaud	0.296	181. Kalinga-Buaya	0.041
28. Eskaya	0.093	105. Itneg/Tinguian-Mabaka	0.064	182. Kalinga-Butbut	0.109
29. Gaddang	0.536	106. Itneg/Tinguian-Maeng	0.219	183. Kalinga-Cagaluan	0.021
30. Guiangan	0.307	107. Itneg/Tinguian-Masadiit	0.142	184. Kalinga-Culminga	0.014
31. Higaonon/Higa-onon*	5.508	108. Itneg/Tinguian-Muyadan	0.054	185. Kalinga-Dacalan	0.040
32. Higaonon-Tagoloanon	0.129	109. Ivatan	0.286	186. Kalinga-Dallac	0.020
33. Ibaloy	2.549	110. Iwak	0.040	187. Kalinga-Dananao	0.034
34. Ibanag	5.643	111. Kabayukan	0.002	188. Kalinga-Dangtalan	0.013
35. Ibatan	0.184	112. Kabihug	0.004	189. Kalinga-Dao-Angan	0.030
36. Ibukid	0.035	113. Kabihug/Manide	0.021	190. Kalinga-Dugpa	0.024
37. Ifugao	1.007	114. Kailawan/Kaylawan	0.001	191. Kalinga-Gaang	0.010
38. Itneg/Tinguian-Illaud	0.038	115. Kalanguya	1.423	192. Kalinga-Gaddang	0.019
39. Imalawa	0.051	116. Kalanguya-Ikalahan	0.083	193. Kalinga-Gubang	0.016
40. Isinai	0.154	117. Kalanguya-Yattuka	0.038	194. Kalinga-Guilayon	0.071
41. Isnag	0.535	118. Kalinga	0.363	195. Kalinga-Guina-ang	0.054
42. Isneg	0.069	119. Kalinga-Ab-abaan	0.083	196. Kalinga-Limos	0.077
43. Isneg/Isnag	0.007	120. Kalinga-Ableg/Dalupa	0.019	197. Kalinga-Lubo	0.057
44. Itawes	3.528	121. Kalinga-Aciga	0.035	198. Kalinga-Lubuagan	0.165
45. Itneg	0.354	122. Kalinga-Ammacian	0.039	199. Kalinga-Mabaca	0.018
46. Itneg/Tinguian	0.152	123. Kalinga-Balatoc	0.029	200. Kalinga-Mabongtot	0.014
47. Itneg/Tinguian-Adasen	0.153	124. Kalinga-Balinciagao	0.037	201. Kalinga-Magaogao	0.013
48. Itneg/Tinguian-Balatok	0.031	125. Kalinga-Ballayangan	0.020	202. Kalinga-Malbong	0.015
49. Itneg/Tinguian-Banao	0.055	126. Kalinga-Banao	0.056	203. Kalinga-Mangali	0.055
50. Itneg/Tinguian-Belwang	0.015	127. Kalinga-Bangad	0.061	204. Kalinga-Minanga	0.006
51. Itneg/Tinguian-Binongan	0.112	128. Kalinga-Basao	0.034	205. Kalinga-Nanong	0.047

52. Kalinga-Pangol	0.079	129. Alangan Mangyan	0.280	206. Panay Bukidnon	1.192
53. Kalinga-Pinukpuk	0.172	130. Bangon Mangyan	0.047	207. Pan-Ayanon	0.026
54. Kalinga-Poswoy	0.022	131. Buhid Mangyan	0.227	208. Parananum	0.224
55. Kalinga-Salegseg	0.069	132. Buhid/Bangon Mangyan	0.002	209. Sibuyan Mangyan-Tagabukid	0.233
56. Kalinga-Sumadel	0.103	133. Gubatnon Mangyan	0.027	210. Subanen/Subanon	9.237
57. Kalinga-Taloctoc	0.032	134. Hanunuo Mangyan	0.542	211. T'boli/Tboli	2.206
58. Kalinga-Tanglag	0.034	135. Iraya Mangyan	0.480	212. Tagabawa	0.169
59. Kalinga-Tobog	0.054	136. Ratagnon Mangyan	0.039	213. Tagakaulo	1.858
60. Kalinga-Tongrayan	0.098	137. Tadyawan mangyan	0.100	214. Tagbanua	0.497
61. Kalinga-Tulgao	0.072	138. Tau-buid Mangyan	0.072	215. Tagbanua-Tandulanen	0.017
62. Kalinga-Uma	0.046	139. Manobo	7.853	216. Tagbanua-Calamian	0.097
63. Kamiguin	0.288	140. Manobo-Aromanon	0.409	217. Tagbanua-Kalamianen	0.079
64. Kankanaey	5.687	141. Manobo-Ata	0.386	218. Talaandig	1.246
65. Kankanaey-Hak'ki	0.072	142. Manobo-Blit	0.010	219. Talaingod	0.004
66. Karao	0.036	143. Manobo-Blit-Tasaday	0.003	220. Tigwahanon	0.182
67. Karulano	0.072	144. Manobo-Dulangan	0.484	221. Tinananen	0.025
68. Kaunana	0.007	145.Manobo-Dulungan-Lambangian	0.014	222. Tingguian	0.106
69. Lambanguian*	0.007	146. Manobo-Dunggoanon	0.011	223. Tuwali	1.406
70. Langilan	0.029	147. Manobo-Kirenteken	0.048	224. Tuwali-Kele-i	0.026
71. Magahats	0.078	148. Manobo-Pulanguihon	0.125	225.Ubo Monuvu/ Manobo-Ubo/ Ubo Manobo/ UboManuvu/ Ubo/ Menuvu	0.153
72. Magkunana	0.005	149. Mansaka	0.952	226. Umayamnon	0.107
73. Malaueg	0.297	150. Matigsalog	0.519	227. Yapayao	0.051
74. Mamanwa	0.219	151. Obu-Manuvu	0.263	228. Yogad	0.436
75. Mandaya	6.375	152. Palawan-o	1.460		
76. Mangguangan	0.093	153. Palawan-O-Ken-ey	0.026		
77. Mangyan	0.177	154. Palawan-O-Tao't-Bato	0.015		

TABLE A2

LIST OF IPs & MUSLIM ETHNIC GROUPS

Ethnic group	Proportion (%)
229. Badjao	5.443
230. Kagan/Kalagan	7.000
231. Kolibugan	4.140
232. Molbog	1.550
233. Sama/Samal	31.958
234. Sama Badjao	5.583
235. Sama Bangingi	9.991
236. Sama Dilaut/Sama Laut	0.558
237. T'duray/Teduray	11.114
238. Yakan*	22.663

TABLE A3

TABLE A3: LIST OF MUSLIM ETHNIC GROUPS (NON-IP)

Ethnic group	Proportion (%)
239. Iranun/Iraynun	5.685
240. Jama Mapun	0.835
241. Maguindanao	34.454
242. Maranao	30.688
243. Palawani	0.448
244. Sangir/Sangil	0.345
245. Tausog/Tausug	27.546

TABLE A4

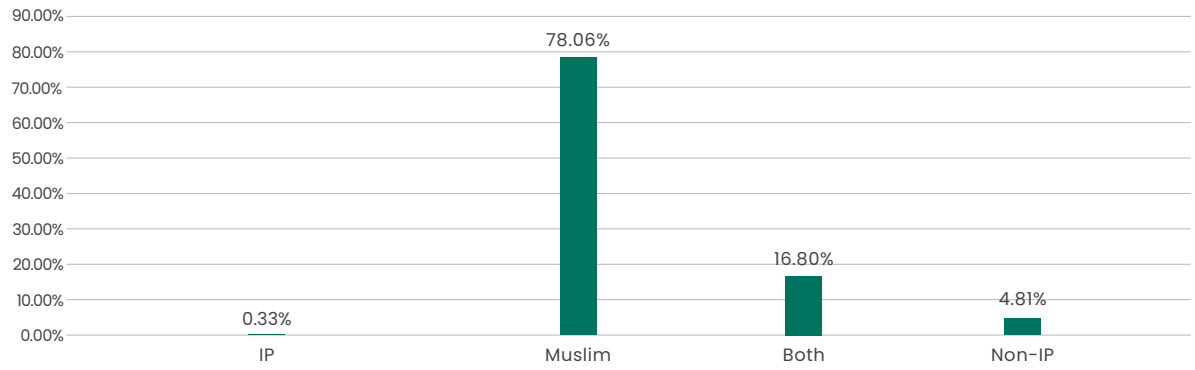
LIST OF NON-IPs AND NON-MUSLIM ETHNIC GROUPS

Ethnic group	Proportion (%)
246. Bikol/Bicol	7.605
247. Bisaya/Binisaya	16.675
248. Boholano	2.011
249. Capizeño	0.847
250. Caviteño	0.535
251. Caviteño-Chavacano	0.022
252. Cebuano	9.328
253. Cotabateño	0.008
254. Cotabateño-Chavacano	0.013
255. Davao-Chavacano	0.011
256. Davaweño	0.153
257. Ilocano	9.395
258. Ilonggo	9.247
259. Kapampangan	3.448
260. Karay-a	0.661
261. Masbateño/Masbatenon	0.804
262. Pangasinan	2.162
263. Romblomanon	0.242
264. Surigaonon	0.630
265. Tagalog	30.372
266. Waray	4.411
267. Zamboangeño	0.523
268. Other Local Ethnicity	0.897

Source: World Bank based on PSA CPH 2020 categorization

FIGURE A1

PERCENTAGE OF POPULATION IN THE BANGSAMORO AUTONOMOUS REGION IN MUSLIM MINDANAO (2020 CPH)



Appendix B

ADDITIONAL GRAPHS ON POPULATION PYRAMID AND LOCATION

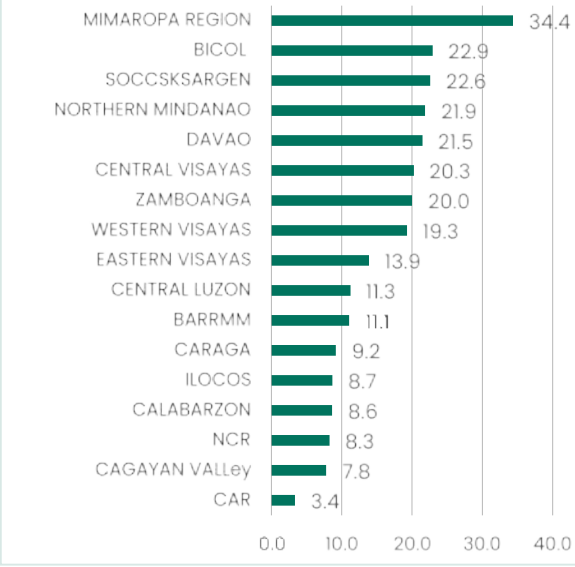
FIGURE B1

POPULATION PYRAMID FOR IPS AND NON-IPs, 2020, PERCENT

Source: World Bank based on CPH 2020.

FIGURE B2

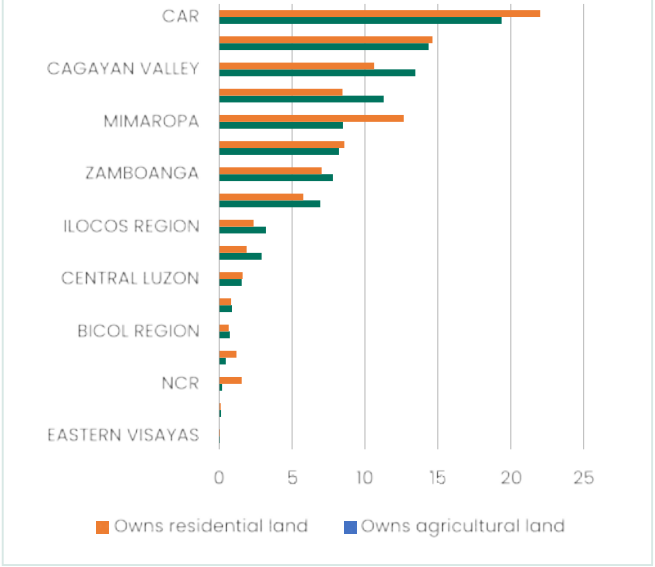
GEOGRAPHIC LOCATION OF IP HOUSEHOLDS WITH HOUSING LAND AREA OF LESS THAN 10 sqm, 2020, PERCENT



Source: World Bank based on CPH 2020.

FIGURE B3

GEOGRAPHIC LOCATION OF IPS HOUSEHOLDS OWNING RESIDENTIAL AND AGRICULTURAL LAND, 2020, PERCENT



Source: World Bank based on CPH 2020.

Appendix C

INDIGENOUS PEOPLES HOUSEHOLD SURVEY 2023

The Indigenous Peoples Household Survey (IP HH) was conducted by the Philippine Survey and Research Center (PSRC) and supported by the Human Rights Trust Fund. The questionnaire and sample designs were developed by the World Bank team. The survey covered a sample of 2,400 adult respondents, consisting of 1,280 IPs and 1,120 non-IPs, all aged 18 and above. Respondents provided information about their household members across various modules, including demographics, education, health, and employment. This resulted in a total of 10,856 observations in the individual module, with 5,988 IPs and 4,868 non-IPs.

Fieldwork for the survey was conducted from April 25 to May 25, 2023, through face-to-face (tablet-assisted) interviews. The questionnaire comprised about 17 sections including household demographics; education and literacy; health; economic characteristics; employment; access to services; land and ancestral domains (ADs); housing characteristics; mobility, displacement, and migration; poverty and hunger; conflict and victimization; access and source of information; community and social cohesion; human rights; gender; and perception of risks and corruption. About five of these modules collected information for all household members and the rest were conducted at the household level.

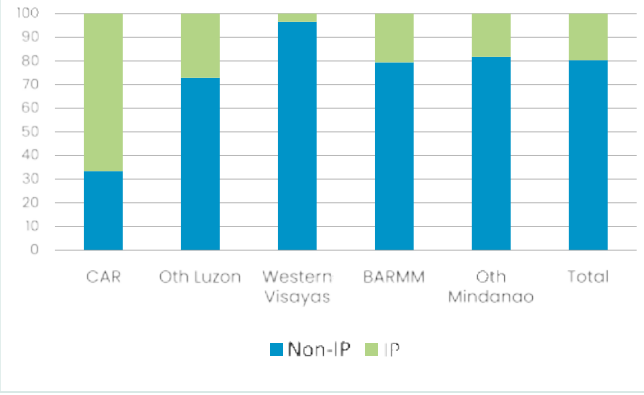
The sampling design used a stratified multi-stage area probability sampling, with geographic stratification by region and urban-rural area. The first stage involved the independent random selection of primary sampling units (PSUs) (barangays) and the second stage involved the selection of secondary sampling units (SSUs) (households) within the sampled barangays. The survey domain covered the Philippines' 17 administrative regions. Using the IP household population from the 2020 Census of Housing and Population (CPH), the following were calculated: 1) the proportion of the IP household population from the CPH for each region and 2) each region's proportion of the total IP household population. To manage cost and timings, the sampling coverage

focused on regions that reached approximately three percent (or greater) of these criteria and had an IP household population of at least 250,000. The sample was then split into the following five regions: 1) CAR; 2) Other Luzon (Cagayan Valley and MIMAROPA); 3) Western Visayas; 4) Other Mindanao (Zamboanga Peninsula, Northern Mindanao, Davao, SOCCSKSARGEN, and Caraga); and 5) BARMM.[125] As such, it is important to note that survey figures are based on selected IP areas in the Philippines and, while they are representative for the five regions mentioned above, they are not representative at the national level.

COMPARISON OF KEY SOCIO-DEMOGRAPHIC CHARACTERISTICS BETWEEN THE IP SURVEY AND THE 2020 CPH

FIGURE C1

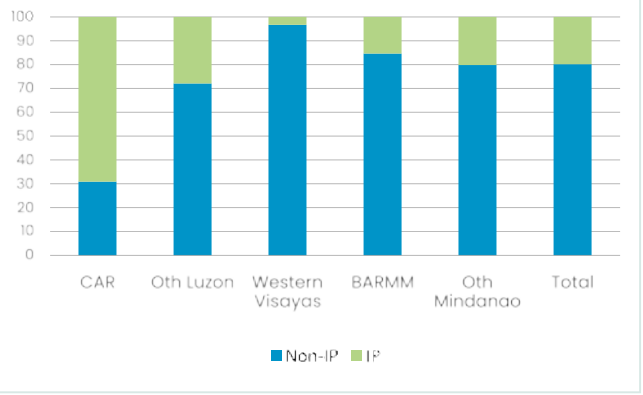
PROPORTION OF IPs BY REGION, IP HH SURVEY, PERCENT



Source: IP HH Survey 2023.

FIGURE C2

PROPORTION OF IPs BY REGION, CPH, PERCENT



Source: IP HH Survey 2023.

TABLE C1

DEMOGRAPHIC CHARACTERISTICS OF IPs

	IP survey		CPH	
	Non-IP	IP	Non-IP	IP
Age household	46	45	47	45
Household size	4	5	2	2
Share children 0-4 yrs. (%)	8	10	17	20
Share children 5-14 yrs. (%)	28	33	35	38
Share women members (%)	64	69	49	49

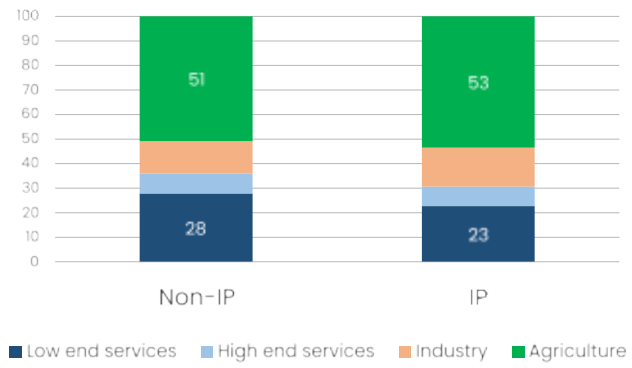
Sources: IP HH Survey 2023 and CPH 2020

Note: Only regions covered in the IP HH Survey are included in the CPH figures.

125 From the sample of 2,400, there were 240 PSUs across the 10 covered regions. The 240 PSUs covered were split proportionately across the 10 regions using the IP household population.

FIGURE C3

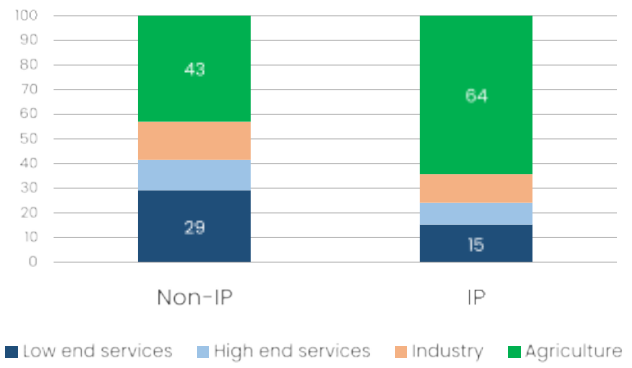
SECTOR OF EMPLOYMENT, HOUSEHOLD HEAD, IP HH SURVEY, PERCENT



Source: IP HH Survey 2023.

FIGURE C4

SECTOR OF EMPLOYMENT, HOUSEHOLD HEAD, CPH, PERCENT

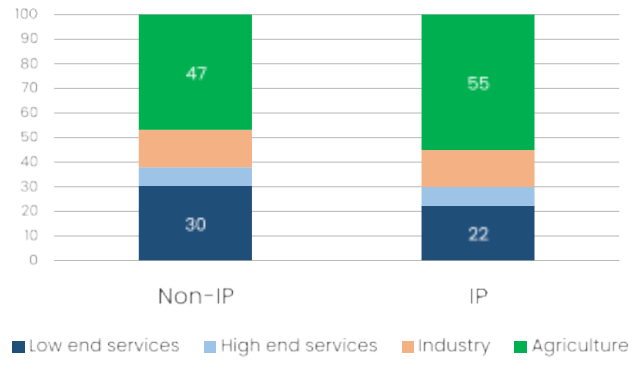


Source: CPH 2020.

Note: Only regions covered in the IP HH Survey are included.

FIGURE C5

SECTOR OF EMPLOYMENT, WORKING-AGE MEMBERS, IP HH SURVEY, PERCENT

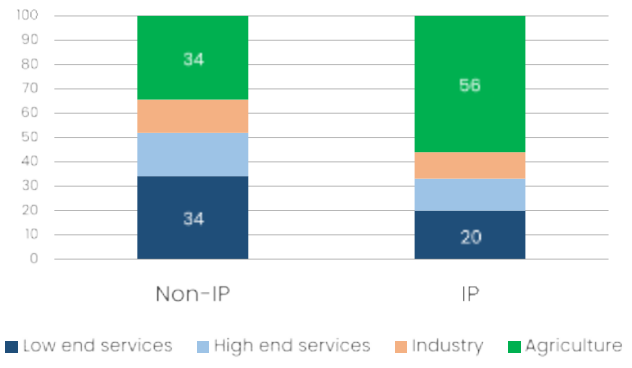


Source: IP HH Survey 2023.

Note: Low-end services include food and accommodation, transportation, wholesale and retail trade, and household services. High-end services include public administration, ICT, financial and real estate services.

FIGURE C6

SECTOR OF EMPLOYMENT, WORKING-AGE MEMBERS, CPH, PERCENT

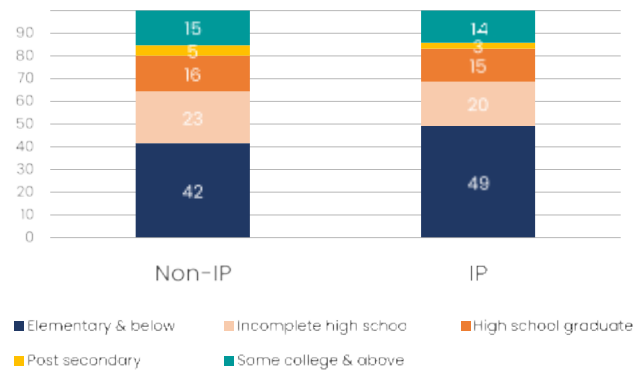


Source: CPH 2020.

Note: Only regions covered in the IP HH Survey are included.

FIGURE C7

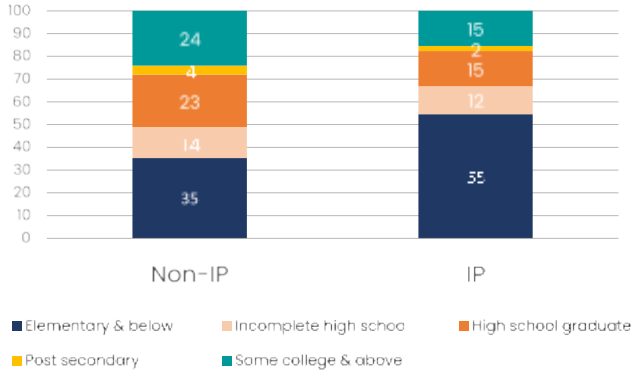
EDUCATION ATTAINMENT, HOUSEHOLD HEAD, IP HH SURVEY, PERCENT



Source: IP HH Survey 2023.

FIGURE C8

EDUCATION ATTAINMENT, HOUSEHOLD HEAD, CPH, PERCENT

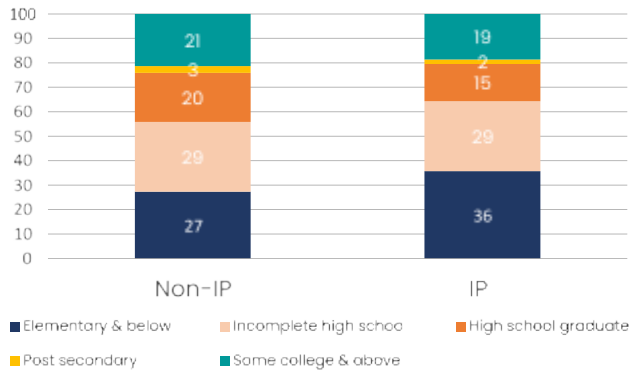


Source: CPH 2020.

Note: Only regions covered in the IP HH Survey are included.

FIGURE C9

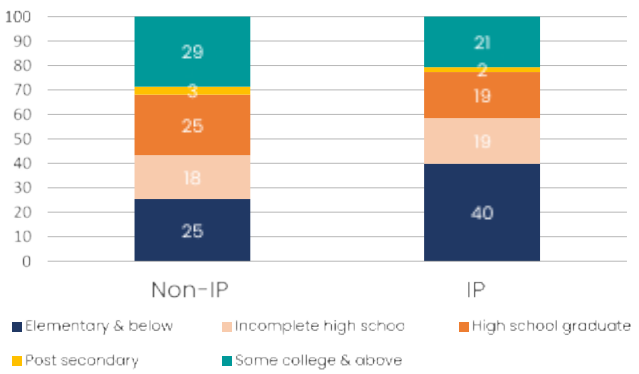
EDUCATION ATTAINMENT, AGED 15+, IP HH SURVEY, PERCENT



Source: IP HH Survey 2023.

FIGURE C10

EDUCATION ATTAINMENT, AGED 15+, CPH, PERCENT



Source: CPH 2020.

Note: Only regions covered in the IP HH Survey are included.

Appendix D

LIST OF FOUR ETHNIC GROUP CATEGORIES USED. HORIZONTAL INEQUALITIES IN THE PHILIPPINES

The main measures used to estimate horizontal inequality in the literature are the Group Gini index (GGini), the Group Theil index (GTheil), and the Group Coefficient of Variation (GCOV) (Mancini et al., 2008; Stewart et al., 2005, 2010; McDoom et al., 2016, 2019; Tetteh-Baah al., 2024).[126]

For this analysis, we have opted to use the GCOV as our primary measure of horizontal inequality. However, we also estimate horizontal inequalities using the GTheil and the GGini to check the robustness of the findings across different inequality measures. All three measures were estimated to assess inequality between ethnic and spatial groups in several well-being indicators.

$$GCOV = \frac{1}{\overline{y}}\left(\sum_r^R P_r \left((\overline{y}_r - \overline{y})^2\right)\right)^{\frac{1}{2}}$$

Where $\overline{y}_r = \frac{1}{n_r}\sum_i^{n_r} y_{ir}$ is group r's mean value; R is the number of groups; p_r is groups r's population share; y_{ir} is the quantity of the variable of interest (e.g., years of education) of the ith member of group r.

$$GGini = \frac{1}{2\overline{y}}\sum_r^R \sum_s^S P_r P_s \left|\overline{y}_r - \overline{y}_s\right|$$

Where $\overline{y}_r = \frac{1}{n_r}\sum_i^{n_r} y_{ir}$ is group r's mean value; R is the number of groups; p_r is groups r's population share; y_{ir} is the quantity of the variable of interest (e.g., years of education) of the ith member of group r.

$$GTheil = \sum_r^R P_r \frac{\overline{y}_r}{\overline{y}} \log \frac{\overline{y}_r}{\overline{y}}$$

Where $\overline{y}_r = \frac{1}{n_r}\sum_i^{n_r} y_{ir}$ is group r's mean value; R is the number of groups; p_r is groups r's population share; y_{ir} is the quantity of the variable of interest (e.g., years of education) of the ith member of group r.

[126] Mancini, L., Stewart, F., & Brown, G. K. (2008). Approaches to the measurement of horizontal inequalities. In F. Stewart (Ed.), Horizontal inequalities and conflict (pp. 85–105). Palgrave Macmillan.
McDoom, O. S., & Gisselquist, R. M. (2016). The measurement of ethnic and religious divisions: Spatial, temporal, and categorical dimensions with evidence from Mindanao, the Philippines. Social Indicators Research, 129(2), 863–891. https ://doi.org/10.1007/s1120 5-015-1145-9.
McDoom, O. S., Reyes, C., Mina, C., Asis, R. (2019). Inequality Between Whom? Patterns, Trends, and Implications of Horizontal Inequality in the Philippines. Soc Indic Res, 145:923–942. https://doi.org/10.1007/s11205-018-1867-6.
Stewart, F. (2010). Horizontal inequalities as a cause of conflict. World Development Report Background Paper.
Stewart, F., & Langer, A. (2006). Horizontal inequalities: Explaining persistence and change. Paper presented at the Poverty Reduction, Equity, and Growth: New Issues and Findings, Kiel, Germany.
Tetteh-Baah, S., Harttgen, K., Lahoti, R., & Günter, I. (2024). Horizontal Inequalities in Africa. Review of Income and Wealth, Series 0(0), 0. DOI: 10.1111/roiw.12669.

TABLE D1

VARIABLE DESCRIPTION

Variables	Description
Years of schooling	Number of years of schooling for those 25 and older
Literacy	If person reads and writes and is 10 years or older
Attendance	If person between 5 to 24 years old is in school
Female employment	If person is employed and female
Youth employment	If person is employed and between 20 and 29 years old
Agricultural employment	If person is employed in agriculture
Mobile phone	If the person has a mobile phone
Internet	If the person has a fixed wireless internet connection (broadband)
Internet (home)	If the person has internet at home
House repairs	If the building where person lives need repairs
Improved water	If the person has access to safe drinking water
Improved sanitation	If the person has access to toilet inside their household
Electricity	If the lighting source is electricity
Electricity & solar	If the lighting source is electricity or solar
Street pattern	If the barangay has a street pattern, that is a network of at least three streets of roads
Hospital	If the barangay has hospital
Market	If the barangay has a market
Elementary school	If the barangay has an elementary school
High school	If the barangay has a high school
College	If the barangay has a college
Phone station	If the barangay has a phone station
Cell signal	If the barangay has cellular phone signal
Birth certificate	If the person has a birth certificate
Birth registration	If the person has a birth registration
Teenage pregnancy	Pregnancy rate between 15 –19-year-old women

TABLE D2

DESCRIPTIVE STATISTICS, 2020

	Philippines	Mindanao	Visayas	Luzon		Philippines	Mindanao	Visayas	Luzon
Years of schooling					**Internet**				
All By Ethnic groups	10.2	9.0	9.7	10.8	All By Ethnic groups	44.0	31.8	45.1	48.8
IP	8.3	6.9	7.3	9.6	IP	34.4	21.8	32.6	46.7
IP& Muslims	6.3	6.3	4.8	6.6	IP& Muslims	19.6	19.0	30.7	30.1
Muslims	7.3	7.1	9.3	10.1	Muslims	29.2	27.5	49.1	54.1
Non-IP	10.5	10.1	9.7	10.9	Non-IP	46.1	36.8	45.3	48.9
Literacy					**Internet (home)**				
All By Ethnic groups	98.6	96.5	98.6	99.4	All By Ethnic groups	58.5	38.4	53.5	68.6
IP	95.4	94.0	94.7	96.7	IP	40.5	25.1	33.4	56.0
IP& Muslims	86.1	86.1	62.1	88.4	IP& Muslims	20.5	19.6	33.8	36.8
Muslims	92.5	92.1	97.7	98.5	Muslims	29.7	27.0	58.1	69.4
Non-IP	99.3	99.2	98.6	99.6	Non-IP	62.3	46.9	53.8	69.5
Attendance					**House repairs**				
All By Ethnic groups	75.0	73.8	77.7	74.6	All By Ethnic groups	83.7	79.1	79.1	87.2
IP	75.0	74.4	77.2	75.6	IP	79.1	75.5	74.7	83.0
IP& Muslims	61.9	61.8	51.2	65.9	IP& Muslims	73.1	72.6	65.7	83.0
Muslims	67.0	66.8	72.3	69.6	Muslims	76.2	75.4	80.2	87.9
Non-IP	75.8	77.8	77.7	74.5	Non-IP	84.7	81.8	79.2	87.5
Female employment					**Improved water**				
All By Ethnic groups	37.3	34.3	36.2	38.8	All By Ethnic groups	94.8	90.5	94.7	96.7
IP	36.1	31.1	35.3	40.4	IP	88.3	88.2	83.8	88.8
IP& Muslims	29.6	29.9	25.0	24.1	IP& Muslims	77.1	78.1	97.6	56.2
Muslims	38.0	38.0	34.8	39.2	Muslims	82.0	81.1	97.6	95.7
Non-IP	37.4	34.2	36.2	38.7	Non-IP	96.5	95.3	94.9	97.3
Youth employment					**Improved sanitation**				
All By Ethnic groups	55.4	52.8	52.6	57.4	All By Ethnic groups	91.8	86.0	90.6	94.6
IP	56.1	54.1	53.9	58.1	IP	88.6	88.4	84.0	89.3
IP& Muslims	49.6	49.5	54.9	51.4	IP& Muslims	48.3	48.5	33.2	45.2
Muslims	54.2	54.0	52.9	57.7	Muslims	68.2	66.6	94.0	93.7
Non-IP	55.5	52.3	52.6	57.4	Non-IP	94.1	95.2	90.7	95.0
Agricultural employment					**Electricity**				
All By Ethnic groups	23.1	40.4	28.9	15.0	All By Ethnic groups	92.3	84.7	92.9	95.4
IP	51.8	61.8	60.5	43.4	IP	79.8	74.5	76.6	85.3
IP& Muslims	65.0	65.9	43.3	52.0	IP& Muslims	56.9	57.0	92.6	51.6
Muslims	52.0	56.2	9.8	6.9	Muslims	74.7	73.5	95.3	92.3
Non-IP	19.2	30.9	28.5	13.1	Non-IP	95.0	93.2	93.1	96.1
Mobile phone					**Electricity & solar**				
All By Ethnic groups	84.3	76.6	82.9	88.0	All By Ethnic groups	95.7	92.7	95.0	97.1
IP	73.1	62.8	71.8	83.2	IP	89.0	83.1	88.6	94.7
IP& Muslims	65.0	65.2	53.8	62.7	IP& Muslims	87.0	86.9	93.0	89.1
Muslims	73.1	72.2	85.4	86.1	Muslims	94.9	94.7	96.5	97.4
Non-IP	86.2	82.3	83.1	88.4	Non-IP	96.4	94.9	95.1	97.3

Source: CPH 2020.
Note: Years of schooling are in average years and all other measures are in percent.

TABLE D2

DESCRIPTIVE STATISTICS, 2020 (CONTINUED)

	Philippines	Mindanao	Visayas	Luzon		Philippines	Mindanao	Visayas	Luzon
Street pattern					**Cell signal**				
All By Ethnic groups	67.8	62.7	78.5	80.6	All By Ethnic groups	93.1	90.7	98.7	97.2
IP	68.5	66.2	54.9	71.1	IP	92.6	89.4	98.7	95.8
IP& Muslims	51.2	50.1	96.0	68.2	IP& Muslims	87.5	87.0	99.3	96.7
Muslims	55.7	53.2	91.4	96.3	Muslims	89.5	88.9	99.7	99.7
Non-IP	85.5	81.2	71.9	90.0	Non-IP	98.6	97.6	97.1	99.3
Hospital					**Birth certificate**				
All By Ethnic groups	11.9	13.1	11.0	17.3	All By Ethnic groups	95.2	90.4	94.6	97.5
IP	9.9	10.1	6.3	9.8	IP	91.5	88.2	92.0	94.7
IP& Muslims	10.5	9.9	2.2	21.5	IP& Muslims	75.1	75.0	63.7	79.7
Muslims	11.8	10.9	28.2	26.7	Muslims	80.5	79.6	90.6	93.5
Non-IP	18.7	21.4	9.6	20.0	Non-IP	96.8	95.9	94.7	97.7
Market					**Birth registration**				
All By Ethnic groups	38.4	41.3	53.9	41.9	All By Ethnic groups	96.8	92.4	96.9	98.7
IP	35.5	40.7	52.8	30.0	IP	94.3	91.5	94.9	97.0
IP& Muslims	39.0	39.3	81.5	30.3	IP& Muslims	75.5	75.3	63.6	80.4
Muslims	37.6	35.5	65.1	70.9	Muslims	82.2	81.4	93.1	95.3
Non-IP	47.6	49.7	35.2	50.0	Non-IP	98.3	97.7	97.0	98.9
Elementary school					**Teenage pregnancy**				
All By Ethnic groups	90.4	93.4	90.1	89.9	All By Ethnic groups	9.5	10.3	9.8	9.2
IP	95.7	98.7	96.5	92.7	IP	10.8	11.1	11.1	10.5
IP& Muslims	92.4	92.4	90.2	91.6	IP& Muslims	10.7	10.7	11.4	11.5
Muslims	85.0	84.9	86.0	86.2	Muslims	11.3	11.3	11.0	10.4
Non-IP	90.4	97.4	90.9	88.2	Non-IP	9.3	9.7	9.7	9.1
High school									
All By Ethnic groups	47.9	51.8	61.1	58.1					
IP	55.2	60.5	63.1	49.8					
IP& Muslims	44.4	42.7	90.6	74.3					
Muslims	40.9	39.2	60.0	69.9					
Non-IP	56.9	64.7	47.9	56.7					
College									
All By Ethnic groups	14.1	15.1	26.7	17.8					
IP	10.7	10.3	7.0	11.1					
IP& Muslims	11.8	11.6	66.6	11.8					
Muslims	15.6	14.6	35.6	32.8					
Non-IP	21.8	23.8	13.5	23.2					
Phone station									
All By Ethnic groups	29.1	20.9	53.8	46.3					
IP	19.8	15.1	22.1	24.6					
IP& Muslims	13.3	12.0	83.7	33.5					
Muslims	17.8	13.9	79.4	80.5					
Non-IP	61.1	42.7	41.1	71.5					

Source: CPH 2020.
Note: Years of schooling are in average years and all other measures are in percent.

TABLE D3

BETWEEN GROUP INEQUALITY GGini AND GTheil COEFFICIENTS, 2020

	Philippines		Mindanao		Visayas		Luzon	
	GGini	Gtheil	GGini	Gtheil	GGini	Gtheil	GGini	Gtheil
Years of schooling								
Ethnicity	2.78	0.42	8.07	1.47	0.35	0.05	0.73	0.05
Region	5.95	0.62	4.86	0.61	2.40	0.11	4.38	0.31
Province	7.43	0.91	8.59	1.26	5.95	0.58	5.32	0.45
Literacy								
Ethnicity	0.65	0.02	1.83	0.07	0.07	0.00	0.19	0.00
Region	0.74	0.02	1.32	0.04	0.22	0.00	0.25	0.00
Province	0.81	0.02	1.62	0.06	0.45	0.00	0.28	0.00
Attendance								
Ethnicity	1.02	0.07	3.57	0.26	0.03	0.00	0.15	0.00
Region	2.16	0.10	3.14	0.24	0.49	0.00	1.36	0.03
Province	2.48	0.12	3.84	0.29	1.11	0.02	1.70	0.05
Female employment								
Ethnicity	0.57	0.03	3.39	0.22	0.05	0.00	0.30	0.01
Region	7.06	0.79	5.31	0.46	4.96	0.43	7.16	0.83
Province	12.67	3.10	18.28	8.21	9.46	1.51	9.56	1.46
Youth employment								
Ethnicity	0.32	0.01	1.01	0.02	0.04	0.00	0.09	0.00
Region	4.14	0.27	2.27	0.08	3.30	0.20	3.64	0.22
Province	7.13	0.96	9.73	2.28	5.68	0.53	5.18	0.42
Agricultural employment								
Ethnicity	17.28	9.60	16.84	5.37	1.83	0.77	12.68	8.72
Region	37.19	26.34	13.37	3.07	9.15	1.46	47.77	41.08
Province	45.77	38.21	24.48	11.71	26.39	15.09	55.80	55.61
Mobile phone								
Ethnicity	2.02	0.18	5.01	0.50	0.23	0.02	0.40	0.02
Region	3.68	0.22	2.78	0.12	0.87	0.02	1.80	0.05
Province	4.50	0.39	5.42	0.60	3.14	0.16	2.45	0.10
Internet								
Ethnicity	4.26	0.88	10.22	2.15	0.46	0.07	0.37	0.02
Region	9.88	1.84	9.71	1.55	2.44	0.10	4.22	0.28
Province	15.34	4.37	22.95	8.77	11.67	2.36	9.79	1.58
Internet (home)								
Ethnicity	5.92	1.74	14.00	4.11	0.62	0.13	1.24	0.14
Region	14.79	3.74	13.23	3.19	0.60	0.01	7.96	1.01
Province	17.24	5.18	21.47	7.73	11.07	2.03.	9.65	1.58
House repairs								
Ethnicity	1.08	0.05	2.09	0.09	0.09	0.00	0.32	0.01
Region	3.67	0.21	1.79	0.05	1.34	0.04	2.58	0.12
Province	4.29	0.28	3.12	0.15	2.75	0.12	3.30	0.18

TABLE D3

BETWEEN GROUP INEQUALITY GGini AND GTheil COEFFICIENTS, 2020

	Philippines		Mindanao		Visayas		Luzon	
	GGini	Gtheil	GGini	Gtheil	GGini	Gtheil	GGini	Gtheil
Improved water								
Ethnicity	1.54	0.11	3.62	0.26	0.20	0.01	0.60	0.04
Region	2.22	0.13	3.23	0.28	0.44	0.00	1.24	0.04
Province	2.60	0.19	4.24	0.45	1.24	0.02	1.60	0.08
Improved sanitation								
Ethnicity	2.38	0.39	7.73	1.45	0.14	0.01	0.42	0.03
Region	3.17	0.37	6.81	1.17	0.18	0.00	1.12	0.04
Province	3.89	0.66	8.10	2.22	2.95	0.14	1.82	0.09
Electricity								
Ethnicity	2.59	0.32	6.42	0.87	0.28	0.03	0.76	0.05
Region	3.55	0.33	5.16	0.66	0.62	0.01	1.69	0.10
Province	4.28	0.69	7.57	1.71	2.62	0.17	2.12	0.26
Electricity & solar								
Ethnicity	0.71	0.03	1.86	0.11	0.11	0.00	0.17	0.00
Region	1.29	0.03	0.93	0.02	0.51	0.00	0.59	0.01
Province	1.68	0.07	2.40	0.11	1.57	0.07	0.82	0.02
Street pattern								
Ethnicity	4.21	0.59	8.67	1.54	2.08	0.10	2.41	0.22
Region	8.81	1.37	10.96	2.32	2.44	0.10	6.62	0.72
Province	12.13	2.78	0.16	0.04	10.94	1.97	8.62	1.75
Hospital								
Ethnicity	11.14	3.50	15.71	5.32	2.85	0.29	8.45	3.06
Region	27.42	11.90	19.57	6.17	17.51	5.74	26.37	11.24
Province	39.34	25.04	0.28	0.12	37.26	27.40	39.55	25.65
Market								
Ethnicity	6.05	0.97	6.80	0.92	0.33	0.07	6.38	1.63
Region	19.11	6.65	7.08	0.81	15.01	4.57	21.85	8.70
Province	29.59	13.67	0.19	0.06	27.96	12.89	31.93	16.26
Elementary school								
Ethnicity	0.91	0.02	2.48	0.15	1.06	0.02	0.52	0.01
Region	3.46	0.19	2.61	0.14	2.02	0.08	3.27	0.17
Province	5.70	1.16	0.03	0.00	4.68	0.46	6.61	1.74
High school								
Ethnicity	4.51	0.64	8.65	1.83	2.23	0.12	3.48	0.51
Region	13.76	3.13	12.21	2.48	14.30	3.74	12.81	2.80
Province	22.11	7.66	0.18	0.05	24.48	9.76.	21.95	7.59
College								
Ethnicity	10.77	3.33	14.77	4.56	5.79	0.87	8.38	2.97
Region	27.72	12.67	14.92	3.66	22.66	9.47	29.13	14.15
Province	39.74	25.81	0.28	0.12	40.97	32.25	40.81	27.09

TABLE D3

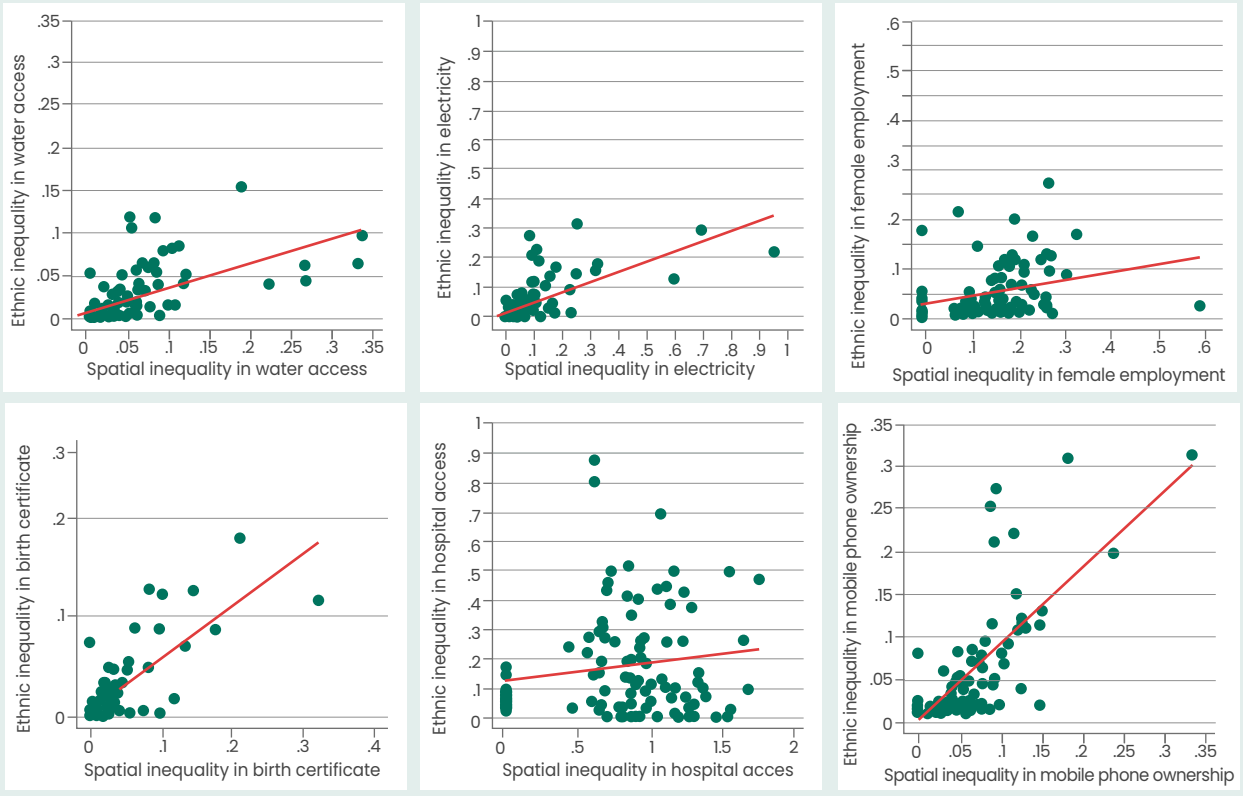
BETWEEN GROUP INEQUALITY GGini AND GTheil COEFFICIENTS, 2020

	Philippines		Mindanao		Visayas		Luzon	
	GGini	Gtheil	GGini	Gtheil	GGini	Gtheil	GGini	Gtheil
Phone station								
Ethnicity	13.95	5.89	22.34	11.31	1.01	0.09	10.52	5.13
Region	30.64	15.22	21.39	10.77	17.04	6.35	25.86	12.31
Province	37.51	23.38	0.47	0.36	32.35	17.56	29.77	16.62
Cell signal								
Ethnicity	1.08	0.04	2.29	0.11	0.43	0.00	0.59	0.01
Region	1.52	0.05	2.00	0.08	0.84	0.02	0.83	0.01
Province	1.93	0.10	0.03	0.00	1.38	0.09	1.05	0.04
Birth certificate								
Ethnicity	1.47	0.12	4.12	0.34	0.06	0.00	0.23	0.01
Region	2.13	0.13	3.48	0.29	1.28	0.04	0.61	0.01
Province	2.34	0.16	4.30	0.37	1.78	0.07	0.78	0.02
Birth registration								
Ethnicity	1.36	0.11	4.04	0.34	0.05	0.00	0.15	0.00
Region	1.73	0.11	3.56	0.30	0.89	0.02	0.28	0.00
Province	1.88	0.13	4.22	0.37	1.21	0.03	0.40	0.01
Ethnicity	2.15	0.18	3.71	0.27	0.24	0.02	1.01	0.07
Region	4.84	0.37	2.65	0.12	1.91	0.09	4.54	0.37
Province	5.45	0.48	3.74	0.24	3.20	0.20	5.33	0.47

Source: CPH 2020.

FIGURE D1

CORRELATION BETWEEN ETHNIC AND SPATIAL INEQUALITY FOR SELECTED INDICATORS, 2020



Source: CPH 2020.

TABLE D4

REGRESSION RESULTS OF THE IMPACT OF ETHNIC AND SPATIAL INEQUALITY IN SELECTED WELL-BEING INDICATORS ON POVERTY AND HOUSEHOLD PER CAPITA INCOME

1. Effects on Poverty

	Electricity				Female employment				Markets			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Ethnic Inequality (GCOV)	2.561**		0.995	4.271***	2.15		2.275	3.336***	0.238		0.063	0.819
Spatial inequality (GCOV)		1.56**	1.387*	0.317		0.185	-0.056	4.314***		0.508	0.531	1.332***
Log Nbr of Ethnic grps			0.253	-0.627**			0.2	-0.522**			0.131	-0.647***
log population size			-0.273	0.413			-0.247	0.205			-0.247	0.269
Region Fixed Effects	yes	yes	yes	no	yes	yes	yes	no	yes	yes	yes	no
R-squared	0.612	0.615	0.627	0.244	0.601	0.596	0.609	0.389	0.596	0.603	0.611	0.267

*** p<0.01, ** p<0.05, * p<0.1

	High school				Birth registration				Water			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Ethnic Inequality (GCOV)	-0.28		-0.39	0.775	4.636**		2.904	7.207***	1.5		1.619	6.281**
Spatial inequality (GCOV)		-0.01	0.01	1.594*		3.056**	1.683	2.056		0.265	0	1.233
Log Nbr of Ethnic grps			0.18	-0.579*			0.205	-0.596**			0.183	-0.696***
log population size			-0.25	0.371			-0.247	0.42			-0.243	0.411
Region Fixed Effects	yes	yes	Yes	no	yes	yes	yes	no	yes	yes	yes	no
R-squared	0.596	0.596	0.60	0.22	0.604	0.604	0.613	0.221	0.597	0.596	0.604	0.193

TABLE D4

REGRESSION RESULTS OF THE IMPACT OF ETHNIC AND SPATIAL INEQUALITY IN SELECTED WELL-BEING INDICATORS ON POVERTY AND HOUSEHOLD PER CAPITA INCOME

Effects on Income

	Years of schooling				Improved sanitation				Internet			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Ethnic Inequality (GCOV)	-0.799**		-0.583	-0.566*	-0.066		0.811*	0.058	-0.511***		-0.278	-0.259
Spatial inequality (GCOV)		-0.977**	-0.645	-1.891***		-0.499*	-0.961**	-1.201***		-0.428***	-0.298*	-0.785***
Log Nbr of Ethnic grps			0.033	0.142***			-0.006	0.129**			0.013	0.147***
log population size			-0.03	-0.076			-0.016	-0.136**			-0.018	-0.083
Region Fixed Effects	yes	yes	yes	no	yes	yes	yes	no	yes	yes	yes	no
R-squared	0.667	0.666	0.675	0.527	0.65	0.665	0.678	0.409	0.672	0.678	0.683	0.504

*** p<0.01, ** p<0.05, * p<0.1

	Electricity				Female employment				Markets			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Ethnic Inequality (GCOV)	-0.811**		-0.446	-0.842**	-0.093		-0.055	-0.955**	-0.091		0.012	-0.321
Spatial inequality (GCOV)		-0.502***	-0.343	-0.573***		-0.062	-0.049	-0.836***		-0.247**	-0.260***	-0.251***
Log Nbr of Ethnic grps			0.009	0.170***			0.024	0.226**			0.053	0.247***
log population size			-0.037	-0.155***			-0.045	-0.156**			-0.04	-0.170***
Region Fixed Effects	yes	yes	yes	no	yes	yes	yes	no	yes	yes	yes	no
R-squared	0.671	0.676	0.682	0.442	0.65	0.65	0.653	0.393	0.65	0.674	0.677	0.316

*** p<0.01, ** p<0.05, * p<0.1

Source: CPH 2020 and FIES 2021.