

# Spatial Disparities and Poverty: The Case of Three Provinces in the Philippines

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*“All happy families are alike; each unhappy family is unhappy in its own way.”*

—Leo Tolstoy

## 1 Introduction

The Philippines is home to about four million Filipino families who live below the poverty line, and to about 17 million families who live above it. Nearly, half of all poor families do not meet their food needs. Despite the Philippines' fast economic growth in recent years—growing over 6 % on average since 2011—the growth has not translated into significant social impact as the country's poverty situation has remained virtually unchanged. While there are the so-called highly urbanized areas in the Philippines that drive this growth, creating massive employment and lifting the quality of lives of many families, many parts of the country have lagged behind, barely generating jobs that could provide enough income for the workers and their families.

The lack of inclusiveness in the Philippines' economic growth has to do, to a large extent, with the wide spatial disparities in economic opportunities across areas in the country. Scale economies and factor mobility lead to concentration of

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economic activities in selected areas, giving rise to differential patterns of growth. This process is inevitable as economic activities are more efficient to undertake in areas where goods and labor markets already exist than in areas that are isolated. However, spatial economic disparities could also lead to spatial disparities in welfare, as the areas in the Philippines that are “spatially” disconnected tend to have worse human development outcomes.

The Philippines’ possesses unique archipelagic and cultural features, consisting of over 7,000 islands (i.e., in number of islands, it is second only to Indonesia), 110 ethnic groups, and 170 spoken languages. The differences in the geographic profile of Philippine regions largely explain the spatial economic disparities across these regions. Geography is expected to determine the initial conditions of the region, including climatic conditions and natural resources, and as such, also determines migration patterns, wealth accumulation, and formation of informal and formal institutions. In the Philippines, the National Capital Region (NCR or Metro Manila) remains the wealthiest region, accounting for 36 % of GDP with 13 % of the country’s population; while the Autonomous Region of Muslim Mindanao (ARMM) is the poorest, accounting for only 1.3 % of GDP but with a population of one-third of that of Metro Manila.

This chapter attempts to better understand the constraints that poor families face to get themselves out of poverty by looking more closely at three of the provinces in the Philippines that have unique spatial characteristics. These provinces are Pangasinan, Eastern Samar, and Maguindanao. They are characterized by large magnitude (Pangasinan) and high incidences (Easter Samar and Maguindanao) of poverty. The analysis was based on the results of national household surveys on family income and on labor market status, as well as on the findings from scoping missions and focused group discussions.

This chapter confirms the notion that many of the poor have remained poor because of their inability to access economic opportunities. While each of the provinces under study has distinct features, the poor in these areas face similar constraints to improving their well-being. These include low skills and education, exposure to idiosyncratic shocks, limited connectivity with markets, and the lack of supporting policy environment.

These findings underscore the need to improve the delivery of public goods and services that will level the playing field across provinces in the Philippines so that those that face more challenging geographical structure are less disadvantaged.

The remainder of the chapter is organized as follows: Sect. 2 provides a brief overview of spatial economic disparities across the Philippines; Sect. 3 looks more closely into the spatial characteristics of the poor in the provinces of Pangasinan, Eastern Samar, and Maguindanao; and Sect. 4 concludes and presents the policy implications.

## 2 Spatial Economic Disparities across the Philippines

Drawing on existing literature, this section provides an overview of the spatial economic disparities across regions and provinces in the Philippines.<sup>1</sup> The diverse geography, ecology, natural resource endowments, economy, ethnicity, and culture across the Philippines make the country well suited for studies on regional growth dynamics. Most of the studies have pointed out that such diversity has given rise to disparities in the levels of economic development of the 18 regions and 81 provinces in the Philippines (Box 1).

Spatial economic disparities in the Philippines appear to go hand in hand with disparities in welfare (Balisacan et al. 2008, 2009). Differences in human development outcomes are evident across island groups, regions, provinces, as well as urban and rural areas. Out of the 1,490 municipalities and 144 cities in the Philippines, only one-fifth and one-third of them are considered “first class,” respectively.<sup>2</sup> Higher economic growth generally happens in provinces where these first class cities and municipalities are located, and because of factors that constrain factor mobility, municipalities beyond these geographical divisions do not benefit from spillovers of these first class locations.

### Box 1. Administrative Divisions in the Philippines

The Philippines consists of three island groups, namely, Luzon, Visayas, and Mindanao. Luzon is located in the northern part of the Philippines and is composed of eight regions: National Capital Region (Metro Manila), Cordillera Administrative Region, and Regions I–V, with Region IV divided into Region IV-A and IV-B. Visayas is located in the middle part of the country, consisting of four regions: Regions VI–VIII and Region XVIII. Mindanao is located in the southern part and is composed of five regions: Regions IX–XII, Caraga, and Autonomous Region of Muslim Mindanao. Each region has about six provinces (the least is two in Region XVIII), totaling 81 provinces in the country. The provinces consist of cities and municipalities, and within them are barangays. As of 2014, the Philippines has 144 cities, 1,490 municipalities, and 42,028 barangays. Cities are classified into highly urbanized independent cities (population of 200,000 people and income of 50 million pesos), component cities, and independent component cities. There are 35 highly urbanized cities, 16 of them are located in Metro Manila.

Source: Department of the Interior and Local and Government.

<sup>1</sup>See Balisacan et al. (2009) for a more comprehensive discussion on spatial development dynamics in the Philippines; and Mercado (2002) for a review of theoretical underpinnings of spatial economic disparities.

<sup>2</sup>First class cities or municipalities have average annual income of 400 million pesos or more.

**Table 1** Poverty incidence among population by regions (%), 2006–2012

	2006	2009	2012	No. of first class cities or municipalities
<b>Philippines</b>	<b>26.56</b>	<b>26.27</b>	<b>25.23</b>	<b>52</b>
<b>Luzon</b>				
National Capital Region (Metro Manila)	4.66	3.62	3.91	13
Cordillera Administrative Region	25.95	25.08	22.84	1
Region I—Ilocos	25.95	21.97	18.46	1
Region II—Cagayan Valley	26.84	25.50	22.14	1
Region III—Central Luzon	13.08	13.69	12.95	8
Region IV-A—Calabarzon	10.27	11.92	10.92	8
Region IV-B—Mimaropa	40.60	34.54	31.02	1
Region V—Bicol	44.23	44.21	41.06	1
<b>Visayas</b>				
Region VI—Western Visayas	29.08	30.80	29.14	1
Region VII—Central Visayas	35.90	31.01	30.22	3
Region VIII—Eastern Visayas	41.51	42.58	45.23	3
<b>Mindanao</b>				
Region IX—Zamboanga Peninsula	44.96	45.77	40.11	1
Region X—Northern Mindanao	39.01	40.11	39.47	5
Region XI—Davao	30.64	31.38	30.74	2
Region XII—SOCCSKSARGEN	37.90	38.31	44.74	2
Caraga	49.24	54.35	40.33	1
Autonomous Region of Muslim Mindanao	47.14	47.45	55.82	0

Note: Region XVIII was not yet in existence by 2012. Negros Occidental and Negros Oriental are still considered for Region VI's and Region VII's Poverty Incidences

Source: Family Income and Expenditure Surveys, Philippines Statistics Authority; Authors' calculations.

At the national level, about a quarter of Filipinos live below the poverty line. But at the regional level, poverty incidence ranges from a low of 4 % to a high of 56 % (Table 1). There is generally low poverty incidence in regions that have more first class locations, such as Metro Manila, Region III, and Region IV-A; and high poverty incidence in regions that have less of them, such as ARMM. On average, poverty incidence between 2006 and 2012 barely changed. However, at the regional level, some regions have actually experienced decline in poverty incidence, notably Region IV-B, Caraga, and Region I; while other regions have experienced worsening poverty situation, such as ARMM.

In all of the regions, Metro Manila continues to be better off in terms of social indicators. Being the wealthiest region in the Philippines, it has the lowest poverty incidence and no other region in the Philippines is converging towards Metro Manila's economic growth rate, which somewhat contributes to regional imbalance in the country. Meanwhile, Region V, Region VIII, Region IX, Region XII, Caraga,

and the ARMM have relatively high poverty incidence, which is mainly attributed to vulnerability of the population to multiple hazards (natural disasters, typhoons, drought) while the political and social structure in these regions discourage more private investments.<sup>3</sup>

Spatial disparities can be attributed to differences in access to supporting infrastructure and basic social services (Balisacan 2009). The geographic profile of the Philippines demands a different approach to connectivity, but the country has underinvested in infrastructure that allows more efficient movement of goods and people. This has significant implication on regional (and provincial) development patterns and, eventually, in the investment climate of the province. Likewise, expenditures on education and health have declined, which contributed to the erosion of human capital (Balisacan et al. 2009).

The regional allocation of the scarce public funds also poses as a challenge. Funding tends to be directed towards the internationally oriented infrastructures, such as ports and harbors, to further reinforce cities and municipalities with global connections. However, improving domestic connectivity is compromised by limited funds towards constructing domestic road networks and farm-to-market roads (Balisacan et al. 2009). Although economic openness has been beneficial to economic growth of selected regions, it may not sustain a more balanced regional development across the Philippines (Pernia and Quising 2003).

Recognizing the need to make the economic growth more inclusive, the government has taken positive steps to address the above issues. The economic development plan for 2011–2016, for instance, recognized the need for targeted interventions that consider spatial disparities among the provinces. The national government allows programs to be sensitive and responsive to the local needs. One of these initiatives is the bottom-up budgeting, which is a participatory approach to public financial management that empowers civil society and the local communities. It does so by providing an avenue for civil society and local communities to engage in the local planning and budgeting of projects.

The government is also pushing for a new industrial policy that aims to strengthen the links across industries in the Philippines, which can potentially expand the domestic market base and exports (Aldaba 2014). The government has also been aggressive in improving the human capital among the poor (e.g., conditional cash transfer program and universal health insurance coverage). Moreover, public investments in infrastructure have increased. While most of these initiatives have had significant impact on the country's economic growth, the fact that they have not had significant impact on poverty indicates that there is more to be done to help those who are left behind.

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<sup>3</sup>It was pointed that splitting of regions (i.e., Region IV into Region IV-A and Region IV-B), creating new provinces or regions (i.e., Region XVIII or Negros Island Region, which formerly consisted of Negros Oriental and Negros Occidental), and legislating more congressional districts, hinder sustainable growth by further enlarging government budgets, expanding bureaucracy, and fragmenting of markets (Alburo 2015).

### 3 A Closer Look at Pangasinan, Eastern Samar, and Maguindanao

This section examines more closely the spatial characteristics of the poor in the provinces of Pangasinan, Eastern Samar, and Maguindanao to better understand the underlying factors that limit their access to economic opportunities. First, it provides an overview of the distinct characteristics of each of the provinces and identifies the factors that could potentially contribute to the slow poverty reduction in these areas. Next, it identifies the common characteristics of the poor in the three provinces, which are low skills and education; high exposure to shocks; limited connectivity; and lack of supporting policy environment.

#### 3.1 *Distinct Characteristics of the Three Provinces*

The provinces of Pangasinan, Eastern Samar, and Maguindanao each represents the three categories of provinces as mentioned in the Philippines' medium-term development plan for 2010–2016. The three categories are the following: (1) provinces with the highest number of poor people (e.g., Pangasinan); (2) provinces with the highest poverty incidences (e.g., Eastern Samar and Maguindanao); and (3) provinces that are vulnerable to natural disasters (e.g., Eastern Samar). The categorization of the provinces in the medium-term plan is an attempt to take into account the distinct features of these provinces, with a view to aid in crafting a more targeted set of poverty-reduction interventions.

Pangasinan is characterized by having large mass of land and high population density. It is the third most populous provinces in the Philippines with 2.8 million residents (Table 2). But compared with the two other most populous provinces in the Philippines (namely, Cavite, 3.1 million people; and Bulacan, 2.9 million people), Pangasinan is less economically developed. In its land area of over 5000 km<sup>2</sup>, about 90 % are rural, of which about 50 % are agricultural; 40 % are grasslands, shrublands; 5 % are wetlands; 5 % are woodlands; and the remaining 10 % are used for other purposes. Although the poverty incidence in Pangasinan is lower than average, the large population in this province drives the high magnitude of poor.

Eastern Samar is the third poorest province in the Philippines. It is one of the provinces in the Philippines that are prone to natural calamities such as earthquakes, which cause landslides, ground rupture, ground shaking liquefaction, and tsunami; heavy rainfall, which causes flooding and landslides; and tropical cyclones that bring strong winds and cause storm surges. The occurrence of multiple natural disasters causes massive destruction of assets in Eastern Samar, where most of the workers rely on agriculture for their livelihood, while others have small establishments that can be easily wiped out by strong typhoons. Eastern Samar virtually has

**Table 2** Poverty profile of selected provinces

	Pangasinan	Eastern Samar	Maguindanao
Region	Ilocos region (Region I)	Eastern Visayas region (Region VIII)	Autonomous region of Muslim Mindanao (ARMM)
Island group	Luzon	Visayas	Mindanao
Population (2010)	2,779,862	428,877	972,904
Land area (km <sup>2</sup> )	5368	4641	10,190
Population density (2010)	518 people/km <sup>2</sup>	92 people/km <sup>2</sup>	95 people/km <sup>2</sup>
Poverty incidence (2012)	20.4	63.7	63.7
Magnitude of poor (2012)	582,209	279,607	571,223
Ave. per capita income (pesos)	48,152.93	30,383.25	23,840.54
Ave. per capita income (US \$)	1021.62	644.61	505.8
Characteristic	Persistently high magnitude of poor	Sporadically high poverty incidence	Persistently high poverty incidence

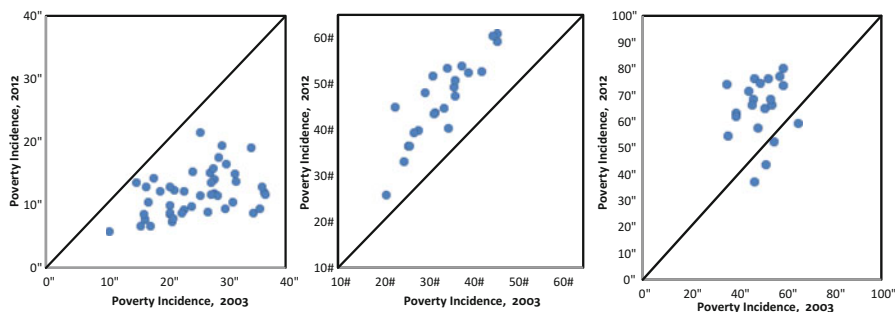
Source: Philippine Statistics Authority

no dry season, and the northern parts of the province are prone to flooding due to the river systems flowing through these areas.

Maguindanao is the fourth poorest province in the Philippines. It is part of the Autonomous Region of Muslim Mindanao, which is known to experience armed conflict, emanating from insurgent and communist groups; intercommunal, ethnic, and elite conflicts; and criminal elements and private armed groups. The armed conflict in Mindanao, in general, has been recognized as the second oldest in modern history, next to Sudan. In recent years, crime and violence in Mindanao have increased, and they occur more frequently in Maguindanao.<sup>4</sup> Children are the most affected by conflict as the disruption of income sources and instability hinder parents from sending their children to school and from properly attending to their food and nutritional needs.

Even within these provinces, disparities in the quality of lives are evident. The municipalities within Pangasinan, Eastern Samar, and Maguindanao vary in terms of poverty-reduction outcomes and average income per capita income. In Pangasinan, all municipalities decreased their poverty incidence from 2003 to 2012 (Fig. 1, Panel A). Conversely, municipalities in Eastern Samar (Fig. 1, Panel B) and majority of those in Maguindanao (Fig. 1, Panel C) increased in terms of poverty incidence from 2003 to 2012.

<sup>4</sup>Of the 173 armed encounters between the Armed Forces of the Philippines (AFP) and revolutionary groups such as the Moro National Liberation Front (MNLF) and Moro Islamic Liberation Front (MILF) that occurred in Mindanao over the period of 1987–2004, 38.73 % (67 encounters) occurred in Maguindanao alone.



**Fig. 1** Changes in poverty incidences of selected provinces, 2003 and 2012. Note: Every *dot* represents a municipality within the province. A *dot* above the 45° line means the poverty incidence in the municipality increased from 2003 to 2012. Source: Family Income and Expenditures Survey; Authors' calculations

## 3.2 Common Characteristics Among the Poor Households

The three provinces, while distinctly different in terms of the issues that they face, commonly share the same set of characteristics that make them spatially isolated. This section highlights the common characteristics of the poor households in Pangasinan, Eastern Samar, and Maguindanao. These common characteristics are the following: low skills and education, high vulnerability to shocks, limited connectivity with markets, and the lack of supporting policy environment at the local level.

### 3.2.1 Low Skills and Education

Majority of the working-age poor in the three provinces barely completed basic education. The proportion of the working-age poor who completed some units in secondary education (incomplete secondary) or lower education levels was 82 % in Maguindanao, 67 % in Eastern Samar, and 58 % in Pangasinan (Table 3). The low levels of education among the working-age poor in Maguindanao can be attributed to the persistent occurrence of war and conflict in this province. Interviews with internally displaced families in Maguindanao revealed having difficulty to send their children to school when they are forced to flee their homes. In Pangasinan, the focused group discussion highlighted that access to secondary education among the poor is difficult due to lack of schools in their areas. In fact, one-third of children aged 13–16 in Pangasinan do not attend school. In the case of Eastern Samar, the frequency of natural disasters causes disruption in the schooling in this province. Typhoons and other natural disasters cause severe damages to houses, roads, and school buildings.

Largely because of low education, access to productive employment opportunities is limited among the poor. Majority of the workers from poor households in the three provinces are employed as unskilled workers or farmers (Table 4).



**Table 3** Distribution of working-age poor, by highest educational attainment (%)

Highest educational attainment	Pangasinan	Eastern Samar	Maguindanao
Complete primary or lower	31	65	41
Incomplete secondary	27	17	26
Complete secondary	38	13	23
Incomplete tertiary or higher	4	5	10

Source: Family Income and Expenditures Survey and Labor Force Survey 2012; Authors' calculations.

**Table 4** Distribution of poor employed workers, by primary occupation (%)

Profile	Pangasinan	Maguindanao	Eastern Samar
Unskilled workers	60	49	45
Farmers	13	39	31
Service and sales	10	3	7
Managers and government employees	7	6	10
Skilled manual	9	3	3
Technicians, clerks, and professionals	1	<1	4
All employed workers from poor households	100	100	100

Source: Family Income and Expenditures Survey and Labor Force Survey 2012; Authors' calculations.

In Pangasinan, the focused group discussions highlighted that having low educational attainment is among the main reasons why the poor are not able to take advantage of productive employment opportunities. Poor workers often do not qualify for secured and well-paying jobs, which usually require higher levels of education. At best, they can undertake activities primarily for their own sustenance (self-employed) or if they are employed as wage and salary workers, they hold low-productive jobs. While the lack of productive employment opportunities among the poor can be attributed to low education, other factors are also at play that limit the creation of productive employment in these areas. For instance, in Maguindanao, armed conflict and violence greatly affects the livelihood of farmers and fishers that often result in less opportunities for business expansion.

Even if employed, the poor have low earning capacity. The jobs that they hold are the kinds that do not provide enough earnings to support themselves and their families. The average wages of employed workers from poor households in the three provinces accounts for only about 60 % of the average wage of the non-poor (Table 5). The significantly lower average wage among the poor indicates their lower levels of productivity. Majority of the respondents in the focused group discussion in Pangasinan stated that, despite having at least one working household member, the earnings are not enough to sustain their families. To augment their low earnings, the poor in Pangasinan tend to take on multiple jobs in order to reach a sufficient level of income for their families. For instance, farmers and fishers are also engaged in non-agricultural activities when earnings from farming and fishing are low.

**Table 5** Average wages of wage and salary workers (Pesos)

Profile	Pangasinan		Maguindanao		Eastern Samar	
	Non-poor	Poor	Non-poor	Poor	Non-poor	Poor
Wage and salary workers	284	182	242	151	308	169
In government	733	234	542	158	561	332
In private establishments	238	188	165	154	183	160
In private households	111	132	74	107	108	136
As % of ave. wage of non-poor	100 %	64 %	100 %	62 %	100 %	55 %

Source: Family Income and Expenditures Survey and Labor Force Survey 2012; Authors' calculations.

While the poor in the three provinces have low skills and education, it is not the case among the non-poor in these provinces, indicating inequality in access to education. In fact, education inequality is worse in provinces with higher income inequality (Mesa 2007). This implies that access to education is mainly determined by the household's income level. But because education largely determines labor market outcomes, the poor who are not able to access education are likely to be trapped in a vicious cycle of poverty.

### 3.2.2 High Vulnerability to Shocks

Shocks happen to poor and non-poor households alike, but the poor are more vulnerable to shocks primarily because of their relatively high exposure and their low capacity to deal with shocks. People in the Pangasinan, Eastern Samar, and Maguindanao are highly exposed to many types of shocks. In Eastern Samar, they need to contend with natural disasters and, in Maguindanao, they have to face the shocks emanating from armed conflict. Natural disasters and man-made conflicts, in general, disrupt economic activities; it disrupts the production and value chain in multiple levels. Disasters, and even armed encounters, can cause destruction of assets and transport infrastructure. The high exposure to risks among the poor families in these provinces, combined with the limited capacity to deal with such risks, make them highly vulnerable to falling into destitution.

The poor are more vulnerable to shocks because they are mostly engaged in agriculture, which is highly sensitive to such disturbances. Agricultural products, in particular, can be easily destroyed by floods, typhoons, earthquakes, and landslides. Farming and fishing account for 55 % of income of poor agricultural households. The poor in Maguindanao who are mostly farmers and fisher folk also face similar disruption whenever armed incidents erupt. Raiding and forcibly stealing of crops and livestock are main concerns for the local farmers in these areas, particularly Maguindanao. While most of the poor in the Philippines are also engaged in farming and fishing, the constant disruptions in economic activities of the poor in

**Table 6** Average amount of remittances (in pesos per year), by source and province, 2012

	International	Domestic
<b>Philippines</b>	<b>8,238</b>	<b>2,584</b>
Poor	234	1,655
Non-poor	10,552	2,852
<b>Pangasinan</b>	<b>12,248</b>	<b>2,585</b>
Poor	487	1,065
Non-poor	14,312	2,851
<b>Eastern Samar</b>	<b>2,434</b>	<b>2,953</b>
Poor	94	2,447
Non-poor	5,287	3,569
<b>Maguindanao</b>	<b>1,781</b>	<b>663</b>
Poor	431	123
Non-poor	3,305	1,273

Source: Family Income and Expenditures Survey 2012; Authors' calculations.

Eastern Samar and Maguindanao make them even more vulnerable than other poor in the Philippines, which may have contributed to the persistent poverty in this province.

Faced with the same risks, poor families experience a more difficult process of rehabilitation and recovery from natural disasters compared with non-poor households. The already low earnings among the poor provide less opportunities for savings to prepare for income shocks related to natural disasters. As mentioned above, the low skills and education often result in their inability to shift to other jobs that can provide them with a more predictable and stable income. Moreover, the poor often lacks the network of support from relatives and friends. The poor households in Pangasinan, Eastern Samar, and Maguindanao receive significantly less remittances than the non-poor households in these provinces, indicating the existence of risk-sharing among families (Table 6).

The high vulnerability to shocks among the poor households have large implication on their welfare. In addition to loss of assets, limited employment options, and limited support, the poor have to bear the brunt of the lingering effects of disasters such as water-borne and contagious diseases that commonly occur in affected areas. Due to lack of alternatives, the poor tend to resort to coping mechanisms that are detrimental to their human capital such as reduction in food intake, withdrawal from school, or working long hours, thereby exposing them to further risks.

### 3.2.3 Limited Connectivity with Markets

Majority of the poor families in Pangasinan, Maguindanao, and Eastern Samar are located in geographically remote areas, disconnecting their economic undertakings from the domestic and global value chains. Their disconnectedness from the rest of

the growing parts of these provinces, and in the rest of the Philippines in general, can be attributed to the lack of supporting infrastructure that allow the movement of goods and people. On many of these provinces, small entrepreneurs face prohibitive transactions costs, which have detrimental effects particularly on their livelihood (Box 2).

The spatial economic disparity created by the geographic location of the poor has severe implication on their capacity to generate income for themselves. Their mobility is constrained by the physical distance between their location and the wider markets as most of them are based in rural areas (Table 7). Their production volume is also low enough to achieve scale economies. Many of the poor are engaged in small-scale entrepreneurship wherein the volume of production is low enough to be traded to other localities. Moreover, the supporting infrastructure that links their activities to the wider production network is limited. Agriculture products, in particular, require adequate logistics and infrastructure to keep the products fresh when they reach the end-consumers. In Maguindanao, 80 % of roads are of poor quality (i.e., made of gravel and sand), making it difficult to transport products across the province.

### **Box 2 Small Entrepreneurs in Isolated Areas Face High Transaction Costs**

In the farming community at Sitio Mapita, Pangasinan, the workers produce high-value crops, particularly tomatoes and green bell pepper. But Sitio Mapita lies on top of the mountainous area in Pangasinan. The roads that lead to this community are unfinished and would take at least more than an hour of rough road to travel from their farm to the market. As a result, workers face high costs in transporting their produce. They would have to rent a van to transport the crops and the transportation would likely result to bruising the products. Similarly, the Seaweed Federation in Parang, Maguindanao cultures seaweed and sells seaweed products to its neighbours and, if supply meets demand, to international markets. However, selling to other local markets, such as the nearby Zamboanga del Sur, remains a challenge due to high transportation costs and limited means. Thus, instead of selling the 10–15 tons of seaweed at 60 pesos per kg in other domestic markets (excluding the 3 pesos per 100 kg transportation costs), fishers would rather sell their products locally at about 25 pesos. These two examples show that agricultural products require both logistics and infrastructure so as to reach the end-consumer without compromising its quality.

Source: Authors based on scoping mission reports.

One of the pull factors for locating in rural areas is proximity to agriculture. On the other hand, one of the push factors is the lack of employment opportunities among the poor in urban areas. Given that the poor have low skills, their job prospects in urban areas are likely be temporary low-productive service jobs,

**Table 7** Proportion of households in rural and urban areas, by income group (%)

		Pangasinan	Eastern Samar	Maguindanao
Poor	Rural	13.38 %	54.94 %	46.98 %
	Urban	1.55 %	–	6.05 %
Non-poor	Rural	68.52 %	45.06 %	39.15 %
	Urban	16.56 %	–	7.83 %

Notes: Eastern Samar has limited observations on households in urban areas; urban areas are cities and municipalities with at least 1000 persons per km<sup>2</sup>. Rural areas are areas with a population density of at least 500 person per km<sup>2</sup>

Source: Family Income and Expenditures Survey 2012; Authors' calculations.

although in rural areas, the agriculture sector barely provides sufficient income for the poor. In Eastern Samar, despite being the largest province in the Philippines, about 30 % of its land area is considered alienable and disposable and only a portion can be used for farming. In Pangasinan and Maguindanao, 50 % of the land area is agricultural, which are used for planting different crops including irrigated and rain-fed rice, corn, banana, and coconut.

Employment opportunities tend to be more profuse in the urban areas as compared to the rural areas, where agriculture seems to be the more prominent means of employment. Commercial spaces, such as malls, are abundant. Particularly, Pangasinan has around 33 malls where 64 % (21 malls) are found in their urban areas and seven of those are found in the major city (Dagupan) alone. However, jobs that are readily available to the poor are service related which are low paying and requires low skills. For instance, a good number of employment opportunities in Pangasinan are services related. At best, they are employed as household service workers, salon keepers, and dishwashers.

### 3.2.4 Lack of Supporting Policy Environment at the Local Level

In all of the three provinces, an environment conducive for job creation is largely missing. The frequency of war and conflict in Maguindanao, the lack of risk-resilient infrastructures against natural disasters in Eastern Samar, and the low-productive use of land mass in Pangasinan, are reflections of bureaucratic and institutional problems at the local level. These may have likely created the high barriers to entry of private sector investments, resulting in limited creation of jobs in these provinces. As a result, the employment structure in these provinces has remained traditional, with a large proportion of the employed are engaged in non-wage employment. Without an environment that encourages small-scale entrepreneurs to expand, the transformation of the employment structure from traditional to modern sector will be slow. Inevitably, the size of the formal sector in these provinces is small. In Pangasinan, only about 20,000 workers are employed in registered establishments, representing only one-fifth of all employed workers in private establishments in the province.

**Table 8** Irrigated land (% of total land area), 2000–2014

	2000	2006	2012	2014
Philippines	45.1	47.3	53.9	56.6
Ilocos Region	5.8	5.9	5.6	5.6
Eastern Visayas	1.6	1.8	2.1	2.3
ARMM	0.5	0.8	1.3	1.5

Source: Philippine Statistics Authority

**Table 9** Good governance index of selected provinces, 2005–2008

	2005	2008	Change in rank
Pangasinan	98.63	115.93	14
Eastern Samar	114.67	113.32	–14
Maguindanao	75.3	79.06	0
Batanes	196.20	172.20	6

Note: Batanes serves as comparator; it ranks first in 2005 and fifth in 2008

Source: Philippine Statistics Authority

In Pangasinan, despite the large mass of land, only half of the potential irrigable lands have been irrigated as of 2010, which resulted in the seasonality of farming—that is, many farmers are able to plant only once a year while farm laborers are engaged only on intermittent employment. In general, the construction and implementation of irrigation projects in the three provinces seem to be slow in the past few years (Table 8). In Eastern Samar and in Maguindanao, a major constraint cited by the business sector is the absence of affordable, stable, and adequate supply of electricity. Only half of residents in Maguindanao receive electricity due to the under-generation of the electric power grid in the province.<sup>5</sup>

The inadequate infrastructure in the three provinces can also be attributed to poor local governance. The massive devastation in the province caused by Typhoon Yolanda in 2013 unveiled the lack of supporting infrastructure against the risks associated with natural disasters in this province. The lack of supporting resilient infrastructures in Eastern Samar does not only increase business costs among the entrepreneurs in the province but also hinders potential private investments into the province. Lack of decent farm to market roads hinders the small-scale entrepreneurs from reaching their end-consumers without compromising their products' quality. As mentioned in Box 1, farmers from *Sitio Mapita* would have to transport their high-value crops through rough road which results to bruising of these crops.

The poor governance in these provinces is reflected in their scores in Good Governance Index as estimated by the Philippine Statistics Authority (Table 9). Maguindanao has the lowest index among the three provinces, and its position

<sup>5</sup>The under-generation of Maguindanao electric power grid may be due to mismanagement of the local power industry. In November 2014, the National Electrification Administration (NEA) took over Maguindanao Electric Cooperative, Inc. due to the latter's accumulated debt of more than 800 million pesos.

relative to other provinces did not change between 2005 and 2008. This is indicative of the local government's struggle to implement and maintain peace within its province. Armed conflict and land-grabbing incidents proved to be a difficult governance challenge. Pangasinan and Eastern Samar are somewhat on the same category, which is higher than Maguindanao, but is still lower than Bataan province which topped the index in 2005. Pangasinan improved its relative ranking in 2008, but Eastern Samar deteriorated.

## 4 Policy Implications

The findings in the previous section underscore the need for more targeted interventions that consider the spatial aspects of economic development. It entails filling the gaps that limit the access of the poor to economic opportunities. Spatial considerations are not specifically limited to physical distance, but generally to the transaction costs involved in being able to access these opportunities. Low skills and education serve as a barrier for the poor to take on more productive jobs in the more economically developed areas; while high exposure to disaster-risk of the province, frequent occurrence of man-made conflict, limited connectivity with markets, and poor local governance and weak institutions serve as barriers for businesses to expand their businesses to rural areas as these factors raise transaction costs, which in turn, hinder the creation of jobs.

To reduce these barriers, there is a need for more investments in human capital, stronger disaster-risk reduction management and climate change adaptation systems, better connectivity across provinces and regions, and better governance and stronger institutions at the local level. While all these policies seem to generally apply to all provinces in the Philippines, the implementation of these policies should be tailor-fit to the geographical, social, and political structure of the place. For instance, the set of policies that are effective in disaster-prone provinces such as Eastern Samar, for instance, may not necessarily work in conflict-affected provinces such as Maguindanao. The remainder of this section elaborates more on the above policy implications.

**Enhancing the targeting of programs that aim to improve human capital.** In the short term when economic opportunities within the province are being created, allowing the people to migrate to where the existing economic opportunities are involve investment in human capital. *First*, there is a need to strengthen the interventions that aim to improve the functional literacy among the poor. Informal modes of learning is particularly important in provinces such as Maguindanao and Eastern Samar that have large number of internally displaced families due to frequency of conflict and natural disasters, respectively. *Second*, there is a need to widen access to training programs among the poor. Training scholarship programs that cater to low-income youth can be expanded in poor provinces. *Third*, as most poor households do not have enough financial resources to support their children's education beyond secondary education, there is a need to expand access

to scholarship programs for tertiary education and to ensure that the state universities and colleges give priority to students from poor households. *Fourth*, there is a need to provide the poor incentives to send their children to school. The conditional cash transfer (Pantawid Pamilya) is of particular importance in this regard. Moreover, health services delivery should be improved, especially in the areas with high magnitude of poor.

**Exploiting the potential for job creation in rural areas.** Not all of the poor are capable and willing to migrate to more economically developed areas. Ultimately, the poor areas need to develop to better provide enough income to the population. It involves increasing the volume and value of production from the economic undertakings of the poor as well as expanding the demand for their products. In so doing, these types of strategies are likely to lead to increase in labor demand and to facilitate the transition from a traditional employment structure (necessity self-employment) to a modern one (wage employment). Increasing the volume and value of production entails investing in supporting infrastructure such as irrigation system, farmers' seedling nursery, storage facilities, fishing ports, and other shared service facilities, which are meant to fill the missing inputs that prevent small businesses from expanding (i.e., missing markets). Expanding the demand for their products requires promoting forward linkages with other products (i.e., connecting with the value chain) and with other sectors such as eco-tourism and agri-business. There are many programs under these broad objectives, which are being implemented by the government, such as those under the livelihood assistance and small business support programs of the Department of Trade and Industry (DTI), Department of Agriculture (DA), Department of Science and Technology (DOST), Department of Social Welfare and Development (DSWD), and Department of Labor and Employment (DOLE). This calls for evaluation of such programs with a view to concentrate public resources to cost-effective ones.

**Building strong risk reduction management and climate change adaptation systems in disaster-risk areas.** The persistent poverty in Eastern Samar can be largely attributed to the high occurrence of natural disaster in this province. In this regard, disaster rehabilitation and recovery must be closely linked with disaster-preparedness. It involves building risk-resilient infrastructures that lower the exposure to risks from natural disasters among the poor households. At the same time, it requires increasing the capacity of the households to deal with such risks. For instance, public works programs can be implemented in Eastern Samar to build coastal infrastructure to protect their homes and productive assets such as fishing boats from storm surges. Disaster-preparedness can also be inculcated among the households such as providing them the capacity to read and understand hazard maps, the capacity to better respond to warning and signals, and ensuring that their houses can withstand severe weather conditions. Ultimately, there is a need to consider permanent relocation of households away from areas that are prone to natural disasters and convert the land to a more productive use.



**Building better connectivity across provinces and regions.** Increasing production capacity requires building transport infrastructure from rural to economic growth areas so that products coming from the rural areas can reach wider markets and, consequently, achieve economies of scale. This involves upgrading and the road systems building more roads and bridges to connect production to markets. This also requires building more ports and improving the existing port facilities. Promoting connectivity is particularly important as the Philippines is archipelagic economy, with many of the poor households live in remote island provinces. To complement the transport infrastructure, possible complementary inputs such as the shared service facilities (e.g., transport vehicles, warehouses, cold storage) to support the movement of goods from rural to urban areas can also be explored. Initially, shared service facilities can be provided by the government until private sector investors come in.

**Engaging the local communities in policy-making.** Local communities have a better understanding of their situation and while existing solutions to their problems may not always be optimal, they can be used to mobilize support in order to formulate long-term structural reforms. For instance, deep-seated social issues in Maguindanao that give rise to armed conflict, crime, and violence can be potentially resolved by closer engagement between policy-makers and the communities. Identifying its root cause and addressing the immediate causes of dissatisfaction, anger, and grievances may contribute to stabilization. While short-term measures can be pursued such as direct job creation programs, long-term solutions should move towards addressing the binding constraints such as illiteracy, remoteness, and poor investment climate.

**Promoting better local governance and stronger institutions.** Underpinning all of the above is an adequate delivery of goods and services and strong institutions that protect the rights and promote the aspirations of its constituents. This involves a proactive local government that can identify that main constraints to business expansion in the province and has the capacity and the willingness to address such constraints. Identifying the main constraints entails consultations with various sectors in the province (e.g., farmers, fishers, traders) and closer coordination with the private sector to better understand their needs. There is also a need to evaluate the financial as well as technical capacity of the local governments to provide the necessary support to its constituents. For some local governments, the needs may require significant amount of resources, such as transport, energy, and coastal infrastructure, that their own revenue-generation is not enough to supply these needs. More importantly, cases of successful implementation of reforms at the local mainly depends on political will. That is, advancing innovative reforms at the local level requires “champions” who have the willingness to undertake such reforms.

**Enhancing national-local government coordination.** Strong local development outcomes will not necessarily take place automatically. Patron–client relationships and institutional backwardness in many parts of the country could frustrate the intended goals of participatory governance. There is still a role for centralized approaches, notably in terms of crafting a holistic strategy in allocating

resources, designing programs that are robust enough to stand implementation challenges at the local levels, and collecting and publishing data for broad groups of academia, civil society, and think tanks to analyze and use in engaging both national and local authorities.<sup>6</sup>

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<sup>6</sup>For example, by allowing the public access to information on tax and other payments, and how the natural resource wealth is managed public dissemination of mining revenues and receipts was done through the Extractive Industries Transparency Initiative (EITI), whereby both national and local governments as well as mining companies are held accountable.

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