

# Panama

## Locking in Success

### Systematic Country Diagnostic

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# Foreword

**PANAMA'S ECONOMIC PERFORMANCE** has been stellar over the past decade, and the country has achieved remarkable progress in reducing poverty and increasing shared prosperity. Panama's growth since 2001 was more than double the average of the Latin American and Caribbean region and its rate of poverty reduction was greater than the regional average. Only Bolivia saw greater improvement in shared prosperity, as measured by the growth of the income of the bottom forty percent of the population, than Panama. The rise of the middle class, seen in many countries in the region, was particularly marked in Panama and there has been an overall decline in inequality.

This outstanding success, is the focus of the World Bank's latest report on Panama, *Panama: Locking in Success—A Systematic Country Diagnostic*. Building on the expertise of World Bank staff on economic, social, and environmental topics this reports provides an in-depth look at the nature of the country's growth, the extent to which this growth benefited all members of the society, and the sustainability of the development model. As such, *Panama: Locking in Success* has served as the analytic underpinning of the first of the World Bank's new County Partnership Frameworks.

There are two main messages that I take from this report. The first one is that there are many lessons that can be learnt from Panama, for example, regarding the way successive administrations have stressed the role of public investment, particularly

infrastructure, as a complement to private investment. And this operating in a stable and sustainable macroeconomic framework. Of these public projects, probably the best known is the expansion of the Panama Canal, expected to start operating in 2016. It is intended to double the capacity of the Canal accommodating post-Panamax ships. This in turn is expected to act as a catalyst of new activities exploiting the opportunities of the country as a logistic hub.

The second message is that even countries as successful as Panama, have areas that require careful thought and where the World Bank can be a partner. In Panama, for example, growth has not been enough to eliminate existing inequities in the country. For example, the Indigenous Peoples living in semi-autonomous provinces (*comarcas*) and groups living in remote rural areas suffer from higher poverty levels than the rest of the country. Significant gaps in access to basic services remain despite improvements across the country. Ensuring that all population groups in the country benefit from growth and have equal opportunities is a highly relevant agenda going forward. Based on a large array of analytical approaches, and consultations with country stakeholders and experts, *Panama: Locking in Success* identifies five priority areas for policy attention needed to sustain Panama's development successes which include education and skills mismatches, an inefficient energy sector, public sector institutions, Indigenous Peoples, and water management.

The goal of this report is to contribute to the public debate around Panama's challenges and opportunities. By having synthesized a substantial amount of the existing research on Panama and generating new analyses, the report brings this knowledge to a broader public. At the same time, the systematic and comprehensive effort to identify priority areas for the future can serve to

foster further investigation and promote a deeper policy debate. I am sure that the present report can contribute to Panama's bright future.

*Jorge Familiar*  
Vice President for Latin America  
and the Caribbean  
The World Bank

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# Abbreviations

ACP	Panama Canal Authority ( <i>Autoridad del Canal de Panama</i> )
ADINA/FAW	<i>Alianza para el Desarrollo e Innovación de los Afropanameños y Fundación Arnold Walters</i>
ANAM	National Environmental Authority
ANCON	<i>Asociación Nacional para la Conservación de la Naturaleza</i>
ASEP	National Authority of Public Services ( <i>Autoridad Nacional de Servicios Públicos</i> )
CBI	<i>Panamanian Centro Bancario Internacional</i>
CEASPA	<i>Centro de Estudios y Acción Social Panameño</i>
CEDLAS	Center for Distributive and Social Studies
CGE	Computable General Equilibrium
CMU	Country Management Unit
CNCD	<i>Comisión Nacional Contra la Discriminación</i>
CND	National Dispatch Center
CONEN	<i>Consejo Nacional de la Etnia Negra</i>
CONEP	<i>Consejo Nacional de la Empresa Privada</i>
DdCP	<i>Dirección de Crédito Público</i>
DICRE	<i>Dirección de Inversiones, Concesiones y Riesgos del Estado</i>
DIPLAN	<i>Dirección de Planificación</i>
DIPORP	National Integrated Development Plan of the Indigenous Peoples of Panama
DISAPAS	Directorate of Water and Sanitation of the Ministry of Health ( <i>Dirección del Sub-Sector de Agua Potable y Alcantarillado Sanitario</i> )
DPI	<i>Dirección de Programación de Inversiones</i>
DPP	<i>Dirección de Análisis Económico y Social, Dirección de Políticas Públicas</i>
ECLAC	Economic Commission for LAC
EML	<i>Encuesta de Mercado Laboral</i>
ENASSER	<i>Encuesta Nacional de Salud Sexual y Reproductiva</i>
ETESA	National Electricity Transmission Company
FARC	Revolutionary Armed Forces of Colombia
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GMM	General Method of Moments
IBC	International Banking Center
IDB	Inter-American Development Bank
IDAAN	National Water Supply and Sanitation Administration ( <i>Instituto Nacional de Acueductos y Alcantarillados Nacionales</i> )
IFC	International Finance Corporation
ILO	International Labour Organization
IMF	International Monetary Fund

INEC	National Institute of Statistics and Census
IPCC	International Panel on Climate Change
IRHE	Institute of Water and Electrification
LAC	Latin America and the Caribbean
LAPOP	Latin American Public Opinion Project
LSCI	Liner Shipping Connectivity Index
MAPAS	Monitoring Country Progress in Water Supply and Sanitation
MDG	Millennium Development Goal
MEDUCA	<i>Ministerio de Educación</i>
MEF	Ministry of Economy and Finance
MICI	Ministry of Commerce and Energy ( <i>Ministerio de Comercio e Industrias</i> )
MIDES	<i>Ministerio de Desarrollo Social</i>
MINSA	Ministry of Health ( <i>Ministerio de Salud</i> )
OECD	Organisation for Economic Co-operation and Development
PAHO	Pan American Health Organization
PCW	Panama Canal Watershed
PISA	Program for International Student Assessment
SAMMAP	<i>Sociedad de Amigos del Museo Afroantillano</i>
SCD	Systematic Country Diagnostic
SEDLAC	Socio-Economic Database for Latin America and the Caribbean
SEM	<i>Sedes de Empresas Multinacionales</i>
SIEPAC	<i>Sistema de Interconexión Eléctrica de los Países de América Central</i>
SNE	<i>Secretaría Nacional de Energía</i>
SSEIR	Social Sector Expenditure and Institutional Review
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
UNHR	United Nations Human Rights
UNODC	United Nations Office on Drugs and Crime
WDI	World Development Indicators
WBES	World Bank Enterprise Surveys
WEO	World Economic Outlook
WSS	Water and Sanitation Services

# Executive Summary

**PANAMA HAS MADE SIGNIFICANT PROGRESS** in reducing poverty in recent years. Between 2007 and 2012, a period including the Great Recession years, Panama managed to reduce poverty (using the national poverty line) from 39.9 percent to 26.2 percent, and extreme poverty from 15.6 percent to 11.3 percent. Thus, in a population of about 3.6 million people, the number of Panamanians living below the national extreme poverty line declined by slightly more than 150,000 people and those living below the overall poverty line declined by close to half a million people.

Panama's progress in reducing poverty and increasing shared prosperity compares positively with the Latin American region. Poverty reduction in the country was greater than the Latin American and Caribbean (LAC) average. Only Bolivia saw greater improvement in shared prosperity, as measured by the growth of the income of the bottom 40 percent of the population, than Panama. The rise in the middle class, seen in many countries in the region, was particularly marked in Panama and there has been an overall decline in inequality.

This report takes stock of this progress, and reflects on the constraints and opportunities that Panama faces in continuing on its path of shared prosperity and poverty reduction. Following a detailed analysis of poverty—recent trends, drivers of poverty reduction, and demographic factors—the report provides elements to answer three main questions. *First, what has driven growth in Panama in recent years? Second, to what extent has this growth been, or not been, inclusive? And, finally, how*

*sustainable is the growth and, more generally, the development model of Panama?*

In doing so, the report identifies a select list of policy priorities for poverty reduction and shared prosperity in Panama. The analysis of the development challenges in any country, including Panama, will likely find that there is space for improvement on most areas underlying development. However, a long list of recommendations is likely to be of limited use. Policy makers face budgetary and political economy constraints that limit their scope for action. Thus, an effort that prioritizes among competing policy interventions will add significant value to any diagnostic of country development challenges. Exploiting a diverse set of analytic tools, a benchmarking exercise and country knowledge, this report also contributes to Panama's policy debate by identifying a select list of priorities and opportunities.

## The Nature of Growth in Panama

**OVER THE PAST DECADE**, Panama has been one of the fastest growing economies worldwide. Average annual growth was 7.2 percent between 2001 and 2013 and Panama was an outlier in terms of postcrisis recovery, having had higher growth after the crisis than before. Even though the growth rate is expected to moderate to between six and seven percent in 2014, this is one of the highest rates for that year. In addition, not only has growth been high but it has also been accompanied by progressive distributional change.

Panama's exceptional growth performance over the past decade stems from a number of factors. The transfer of the Canal to Panama in 2000 allowed Panama not only to benefit from the growth of world trade but also to leverage its geographical position to transform itself into a well-connected logistics and trade hub and a financial center. Complementing this strength, Panama has undertaken important public investment projects, such as the expansion of the Canal and the construction of the Metro in Panama City. In the process, it has managed to attract increasing foreign direct investment (FDI) flows and private investment. As a result of these factors, and the underlying stable macroeconomic environment, Panama's real growth since 2001 has been more than double the average for LAC. The country has been one of the few that have been able to catch up with the United States in terms of per capita gross domestic product (GDP) in recent years and its growth rate displayed low volatility in international comparison. As a result, it has consolidated its position as the most competitive economy in Central America and is second only to Chile in LAC.

There are good reasons to expect that growth will continue to be strong in Panama (around six percent) in the near future. The completion of major infrastructure projects (Canal expansion and the first Metro line) will lower public investment in the coming years; however, this will be offset by the planned construction of the second Metro line, and the additional traffic generated by the expanded Canal. In addition, there is no indication of a downturn in private investment according to residential and non-residential construction leading indicators (such as construction permits). The continued stable macroeconomic environment

and recent moves by the government to ensure that the banking sector meets international standards will also continue to make Panama an attractive country for FDI. The prospects of sustained high growth in the coming years are also supported by emerging opportunities in key sectors such as transport and logistics, mining, financial services, and tourism.

Nonetheless, certain structural areas require attention to ensure that Panama meets these high growth expectations: infrastructure, particularly energy; education and skills; and public sector institutions. For example, the energy sector has not been able to keep pace with the growing demand of a high performing economy, and this issue will likely become even more binding as the economy continues to grow at healthy levels. Likewise, while the country has made large gains in education in recent years, the transformation and modernization of the economy has exposed weaknesses in both the coverage and quality of secondary and tertiary education. Finally, there is an obvious mismatch between the increasing sophistication of Panama's economy and the effectiveness of its public institutions. Challenges are most marked in transparency, efficiency, and the adequacy of the regulatory framework.

## **Inclusion and Economic Growth**

**PANAMA'S GROWTH HAS BEEN INCLUSIVE** along many dimensions. Over the past years, growth has been accompanied by declines in income inequality, and vulnerable groups in society (poor, women, unskilled) have significantly benefited from growth. For example, the average income growth of the

bottom 40 percent (8.2 percent per year between 2007 and 2012) was significantly higher than income growth for the average Panamanian (6.6 percent per year). Similarly, the percentage of female-headed households that escaped poverty between 2007 and 2012 (14 percent) was higher than the percentage of male-headed households escaping poverty (12.3 percent) and today, the difference in the poverty rates between female- and male-headed households is less than one percent (2.6 percent in 2007). The economy has also managed to generate a large number of jobs for the unskilled: an increase of almost 12 percent. The positive effects of economic growth on poverty came through a combination of increased labor income and a strong program of public transfers. Labor income was the key driver of both poverty and extreme poverty reduction in urban areas, but government transfers were the main force behind poverty and extreme poverty reduction in rural areas.

The degree of inclusion has varied across the country and across population groups. Despite the strong pro-poor growth, sharp regional disparities remain. Take the case of Ngäbe Buglé *comarca*, Panama's poorest area, where 93 percent of the population is poor—compared to 26 percent for the country as a whole, and only 15 percent in the richest province. The rate of change of poverty also varied. While urban extreme poverty fell 40 percent between 2007 and 2012, in rural areas the decline was 15 percent, and in the indigenous territories, or *comarcas*, only four percent. This has resulted in an increasing concentration of the extremely poor in the indigenous territories. Finally, among the poor and extremely poor in Panama, the groups with the least human capital, lowest incomes, and greatest dependence on social

assistance are the indigenous population living in the *comarcas*.

Benchmarking across indigenous groups in the region shows Panama to be lagging in economic and social development. In absolute and relative terms, Panama's indigenous populations fare poorly compared to other Indigenous Peoples in Latin America. The differences in terms of access to services are striking. Among 12 Latin American countries, Panama has both the lowest level of electricity coverage among the indigenous population and the largest gap between indigenous and non-indigenous populations (52 percentage points compared to the next largest gap of 38 percentage points in Colombia). The gap in sanitation is also the largest, and only Nicaragua has lower absolute levels. The situation is similar for piped water and Internet access.

While reducing poverty in Panama will require attention to all deprived groups, the concentration of the poor in *comarcas* suggests that this would be a priority area. The Indigenous Peoples of Panama have significant social capital, and their lands represent significant wealth and biodiversity. At the same time they suffer from multiple deprivations: extremely low incomes, low access to basic services and infrastructure, lower human capital, poorer health outcomes, fewer labor options, and de facto land tenure insecurity. Investments in basic infrastructure in roads, electrification, and sewage systems would benefit both rural indigenous and non-indigenous groups. However, improving social service for the indigenous will require special attention to accommodate their cultural norms. In short, while Panama's agenda on eradicating extreme poverty is much broader than just the *comarcas*, the levels and severity of poverty in these areas

and the slowness of positive change suggest that focusing on the *comarcas* is a priority.

At the same time, it is important to understand the complexities of addressing the development challenges of the *comarcas* and the need to pay attention to issues of (i) culturally appropriate economic opportunities, (ii) social assistance, and (iii) infrastructure provision. The lack of culturally appropriate models for development for the *comarcas* has reduced the positive impact of government programs and policies. Differences in community organization and communal property, among others, need to be taken into account. Furthermore, a good understanding of the tradeoffs that Indigenous Peoples are, and are not, willing to make among different goals will be key to finding sustainable solutions. In this regard, the National Integrated Development Plan of the Indigenous Peoples of Panama (DIPORP), completed by the National Indigenous Working Group after a two-year effort, provides an opportunity to tackle poverty in the *comarcas*. The Plan presents the consensual vision of the goals and priorities of the 12 indigenous congresses on economic development, social development, and legal rights.

The challenges faced by the social protection system in the *comarcas* also merit further attention given that outcomes are muted despite good spending levels. Indeed, the benefits of *Red de Oportunidades*, the conditional cash transfer program for the most vulnerable, in the *comarcas*, appear to have been limited by a lack of differential ethnic services for the various ethnic groups. In this regard, the adaptation of service provision to the environment is critical, including, for example, offering multicultural bilingual education in indigenous areas or ensuring that health workers are equipped to work in different cultural contexts.

Lack of services, particularly access to water and sanitation, continues to be a constraint in the *comarcas*. Low population density and dispersed populations are often blamed for lack of service provision in these areas. This is a challenge that needs to be acknowledged; but the fact that Los Santos, one of the three provinces with the highest rate of poverty reduction in the past six years, has a population density below that of the poorest *comarca* suggests that additional barriers to service provision are at play.

## Sustainability: Economic, Social, and Environmental

**CAN PANAMA SUSTAIN THIS PROGRESS** and improve on it? Whether Panama can sustain the progress observed in previous years depends on the extent to which attention is paid to critical economic, social and environmental issues.

Panama's continued high reliance on foreign financing for its investment program will depend on continued progress on compliance with international finance standards. The Panamanian government is working on reforms to address these concerns but is still under a peer review process. The first phase of this review involves an assessment of legal and regulatory frameworks; the second phase consists of an assessment of how well the country is doing on tax transparency in line with international standards. Based on the outcome of the first phase, Panama is currently undertaking reform measures to allow it to move on to phase two of the process.

Sustainability will also depend on Panama's successfully assessing and mitigating the various sources of competition to the Panama Canal, given its crucial role for the



country's economy. To the east, the recent project by Egypt to widen parts of the Suez Canal will enlarge transit capacity and decrease waiting time from 18 to 11 hours for most ships. Closer to home, Panama's northern neighbor Nicaragua has recently announced the initiation of a project to build a Nicaragua Canal passing through Lake Managua. Once completed, this canal could have significant impact on the share of trade going to Panama. Finally, in the medium to long term, the Northern Passage may open up as global warming melts the Arctic ice cap, substantially reducing the distance between Asia, Europe, and North America. Competition to the Canal requires constant adjustment of its pricing policy to maintain market edge and competitiveness within the global market.

On the social front, the country's cohesion is threatened by existing inequalities, the crime and violence linked to Panama's strategic position as a drug corridor, and weak protection of land rights. The stark economic inequalities and relative deprivations, coupled with more precarious forms of urban employment and perceptions, along with evidence of corruption have been creating strains on society. Relative deprivation has led some groups to further organize and assert political voice (such as through the *Mesa Indigena*) but has also led to increases in violence in urban areas when combined with the illegal drug trade. However, the risks from crime and violence affect not only urban youth but also rural and indigenous populations. Struggles around infringements of indigenous land rights also pose serious threats to social sustainability. This is particularly the case when one considers mining, which has the potential to be a key source of growth in the coming years but which will need to

overcome potential opposition from the indigenous populations living in the areas where the mining deposits are.

While the risks to social cohesion exist, various factors may play a mitigating role. The recent success the government has had in reining in homicide rates suggests that Panama may be able to avoid the escalation of crime and violence seen in neighboring countries. The youth gang movement is nascent and appears amenable to intervention. Ratification of the International Labor Organization Convention 169 could help promote land and other rights because ratification would trigger international supervision of the Convention's implementation, thus providing more visibility to land rights issues. The planned creation of a Ministry of Indigenous Affairs to help promote economic and social welfare of the Indigenous Peoples in the country and support the National Integrated Development Plan of the Indigenous Peoples of Panama provides further opportunities for improvements in the protection of land and resources rights of the Indigenous Peoples in Panama.

Environmental sustainability depends on safeguarding Panama's water and natural resources and on putting in place adequate regulation to mitigate the effects of large infrastructure and extractive projects, rapid urbanization, and risk from natural disasters. Safeguarding Panama's water and natural resource base is critical to the current growth model linked to the Canal and other economic activities. In terms of long-term climate change, the recent International Panel on Climate Change (IPCC) Fifth Assessment (IPCC 2014) cites a trend of increasing precipitation over most of Panama. This is generally good news for the Canal. However, greater variability, with more frequent floods

and droughts, is also predicted and poses a real risk. The country's infrastructure-based growth model requires strong environmental regulation and enforcement to avoid long-term irreversible negative impacts. In particular, the growth of the mining sector raises significant potential environmental risks due to the lack of an adequate regulatory framework that regulates safe and sustainable mining permits. The challenge of improving the urban environment is amplified by the ongoing process of decentralization that has not been coupled with adequate municipal capacity building. Finally, the increasing risks of natural disasters require an integrated mitigation strategy.

Water resources management under varying climate conditions emerges as a priority area linked to sustainability. Benchmarking across time highlights the greater incidence of extreme weather events in the last decades. Climate models predict this to be the new norm. The effects on the economy are multiple, including, most critically, the effect on the Canal operations as greater variability in rainfall and extreme weather can lead to temporary closures (this has happened four times to date). Changes in rainfall in other areas of the country can affect hydro-electrical power generation, a key energy source for the country. And, of course, extreme weather can affect agriculture, the main source of income for many of the poor in the country.

## Priority Areas and Complementarities

VALUABLE SYNERGIES EMERGE FROM LOOKING AT PRIORITIES and opportunities across the themes of growth, inclusion and

sustainability. The analysis has been framed to answer three key questions: What is the nature of growth? How inclusive is it? and How sustainable is it? The analysis identified five priority areas: (i) infrastructure with a focus on energy, (ii) education and skills, (iii) public sector institutions, (iv) Indigenous Peoples, and (v) water resources management. But beyond the relevance of each of these areas for growth, inclusion, and sustainability, it is important to also highlight the complementarities that exist across them. Some simple examples illustrate this point. Education and skills have been identified as a priority for economic growth: a well-educated workforce with relevant skills is fundamental to sustain economic growth. In parallel, closing the education gap between the poor and non-poor is also highly relevant for inclusion by providing opportunities to rural and indigenous Panamanians. Institutional capacity clearly affects growth, inclusion and sustainability.

In terms of opportunities within these areas, those identified to improve public institutions provide a clear example of the synergies. Performance-based budgeting or enhanced fiscal management along with other opportunities will free resources that could be spent on other areas, including education or Indigenous Peoples. Moreover, enforcing consistent social and environmental safeguards, regulations, and standards across sectors will have an important positive impact on water resources management.

## Knowledge Gaps

IN THE PROCESS OF REVIEWING, analyzing and synthesizing the existing data and research on Panama, a series of knowledge gaps were discovered. By discovering and



describing these gaps, this report outlines a roadmap for further research on Panama that will benefit the design of specific policies in the priority areas identified in this report and generate information that can lead to the identification of new priority areas. Knowledge gaps are, in some cases, data related (poverty by all ethnic groups, for example).

In other cases there is a need for more analytical work (qualitative and quantitative work on the causes of dropout rates in Panama or the creation of simulation tools on growth or climate, for example). Focus on filling these knowledge gaps will ensure the best possible analytic base for future work on prioritization in the country.

**TABLE ES.1 Priority Areas and Opportunities**

Diagnostic Area	Priority Area	Opportunities	Complementarities
GROWTH	Energy	Managing (reducing) national energy demand	<ul style="list-style-type: none"> <li>- Contributing to a more efficient public sector</li> <li>- Reducing demands on water resources</li> <li>- Freeing up resources for priority social programs, such as education and indigenous</li> </ul>
		Increasing power generation via renewables/clean energy	
		Increasing domestic and cross border transmission	
		Modernizing the institutional framework in energy	
		Improving rural energy services	
	Education	Strengthening targeted public/private technical education to meet labor market demands	<ul style="list-style-type: none"> <li>- Reducing dropout rates and proving opportunities for indigenous, inter alia</li> <li>- Contributing to growth, potentially increasing demand for energy and water</li> <li>- Contributing to a more efficient public sector</li> </ul>
		Strengthening M&E of education to improve quality	
		Differentiating social assistance benefits to lower the dropout rate from secondary education	
	Public Sector Institutions	Meeting Global Forum standards on tax/financial information sharing (OECD grey list)	<ul style="list-style-type: none"> <li>- Freeing up resources for priority social programs, such as education and indigenous</li> <li>- Creating conditions for sound indigenous people development framework and engagement</li> <li>- Supporting sustainable energy and water management</li> </ul>
		Improve public procurement practices	
		Introducing performance informed budgeting (PIB) along with better coordination	
		Developing effective subnational institutions needed for decentralization	
		Improving fiscal management, incl. modernizing financial planning, debt management, and fiscal risk from disasters	
		Modernizing mining regulatory framework to promote oversight, benefit sharing, and environmental/ social sustainability	
		Strengthening financial sector regulation	
		Enforcing consistent social and environmental safeguards, regulations, and standards	

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**TABLE ES.1** *continued*

Diagnostic Area	Priority Area	Opportunities	Complementarities
<b>INCLUSION</b>	Indigenous Peoples	<p>Increasing the quality, access, and cultural pertinence of health and education services in indigenous communities</p> <p>Supporting “economic development with identity,” for example traditional agriculture, payments for environmental services, benefit sharing, sustainable tourism</p> <p>Strengthening and formalizing Indigenous Peoples’ participation in relevant government decisions and processes</p>	<ul style="list-style-type: none"> <li>- Reducing drop-out rates</li> <li>- Ensuring sustainable water and energy use</li> <li>- Strengthening institutional framework for inclusion</li> </ul>
<b>SUSTAINABILITY</b>	Water	<p>Implementing integrated water resources management plans in selected priority basins outside Canal watershed</p> <p>Scaling up integrated disaster risk planning coupled with climate adaptation measures</p> <p>Reducing pollution by improving sewerage treatment capacity and access to sanitation</p> <p>Streamline regulatory and institutional functions across Water sector agencies</p>	<ul style="list-style-type: none"> <li>- Creating economic opportunities for rural and indigenous</li> <li>- Contributing to a more efficient public sector</li> <li>- Ensuring supply for hydropower generation</li> </ul>

## Reference

IPCC 2014. *Climate Change 2014: Synthesis Report*. Contribution of Working Groups I, II, and III to the

Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Geneva: IPCC.

# 1. Poverty and Shared Prosperity in Panama

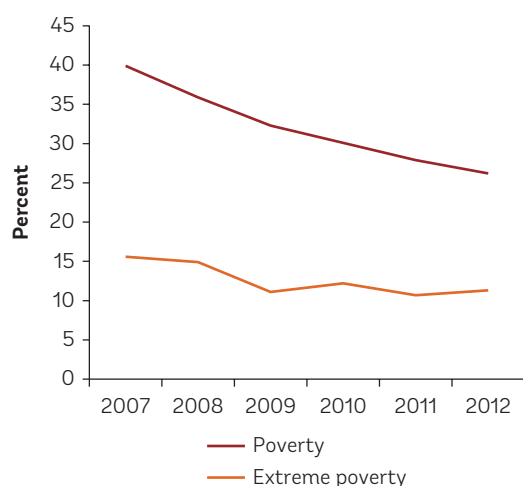
**PANAMA HAS MADE SIGNIFICANT PROGRESS** on the poverty reduction front over the past five years.<sup>1</sup> Between 2007 and 2012, a period including the years of the Great Recession, Panama managed to reduce poverty (using the national poverty line) from 39.9 percent to 26.2 percent, and extreme poverty from 15.6 percent to 11.3 percent (figure 1.1). Thus, in a population of about 3.6 million people, the number of Panamanians living below the national extreme poverty line declined by slightly more than 150,000 people, and those living below the moderate poverty line declined by close to half a million people.

Panama's progress in reducing poverty compares positively with the Latin American region. Indeed, using a US\$4 a day poverty line, moderate poverty declined from 33.5 percent of the population in 2007 to 20.9

percent in 2012. This compares with a poverty decline in the Latin American and Caribbean (LAC) region from 32.2 percent to 25 percent over the same period. Likewise, extreme poverty (using a US\$2.5 poverty line) declined from 19.2 percent to 11.8 percent, compared to a decline in the region from 17 percent to 12 percent (figure 1.2). Extreme poverty, as measured by the international US\$1.25 poverty line (used by the World Bank to measure progress toward the twin goals) would be four percent, which is close to the World Bank's global extreme poverty target of three percent for 2030.

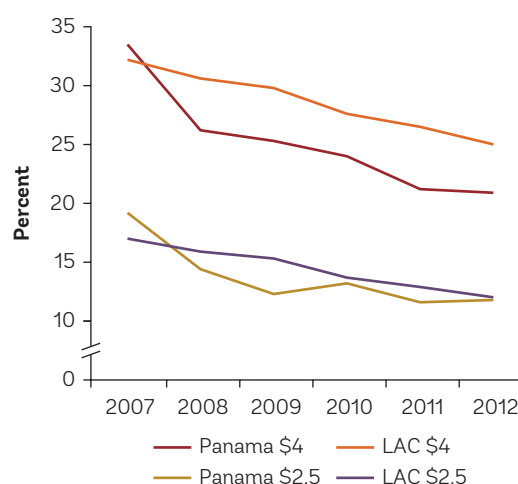
The observed declines in poverty rates have been accompanied by a significant increase in the middle class. When measured as the share of the population with incomes between US\$10 and US\$50 a day (as done in

**FIGURE 1.1 Panama's Poverty Rates, 2007–2012 (Percent, National Poverty Line)**



Source: National Institute of Statistics of Panama (INEC), <http://www.contraloria.gob.pa/inec/>.

**FIGURE 1.2 Poverty in LAC and Panama, 2007–2012 (Percent, International Poverty Line)**



Source: World Bank data.

Note: LAC=Latin America and the Caribbean.

the *Economic Mobility and the Rise of the Middle Class* report, Ferreira et al. 2015), the Panamanian middle class increased by about 10 percentage points from 29.7 percent in 2007 to 39.7 in 2012. This is consistent with—although more marked than—the evolution of the middle class in the Latin American region, which also increased from 27.4 percent to 34.2 percent (figure 1.3).

As a result, the middle class has been the largest group in Panama since 2011. The typical transition from poverty to middle class is through the vulnerable class (that is, a group of the population that, while not poor, has a significant chance of falling into poverty in the coming years). In Panama in 2007, the middle class was as large as the population living in poverty but began increasing between 2007 and 2010 as poverty declined. Starting in 2011, the vulnerable class was smaller than the middle class.<sup>2</sup> This is unlike in Latin America as a whole where,

despite the evolution of the middle class, the vulnerable group continues to be the largest.

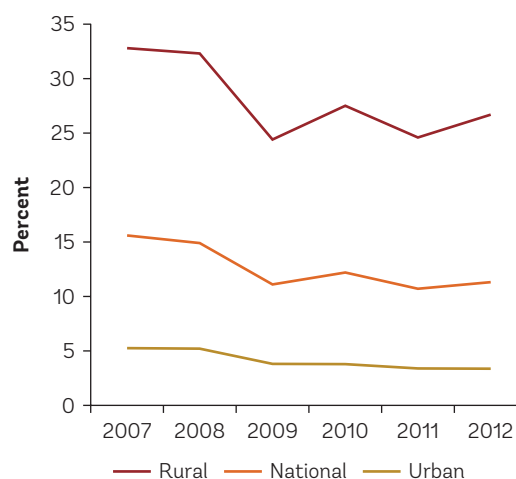
As in most Latin American countries, there are important differences between poverty levels in rural and urban areas. Despite the fact that 75 percent of Panamanians live in urban areas and two-thirds of those in Panama City, the urban-rural discrepancies are still important. For example, while in urban areas extreme poverty is below four percent, in rural areas extreme poverty is about 27 percent. Moreover, in contrast to urban areas, where poverty has fallen every year since 2007, extreme poverty levels have fluctuated in rural areas and indeed increased in 2010 and 2012 (figure 1.4). But perhaps more worrisome, as discussed in Chapter 4 of this document, poverty rates vary dramatically across the country. In the Indigenous Peoples' territories (figures 4.7 and 4.8), poverty is almost universal and persistent (declining at a rate below the

**FIGURE 1.3 Middle Class in Panama and LAC, 2007–2012 (Percent, International Poverty Line)**



Source: World Bank data.  
Note: LAC=Latin America and the Caribbean.

**FIGURE 1.4 Urban and Rural Extreme Poverty in Panama, 2007–2012 (Percent, National Poverty Line)**

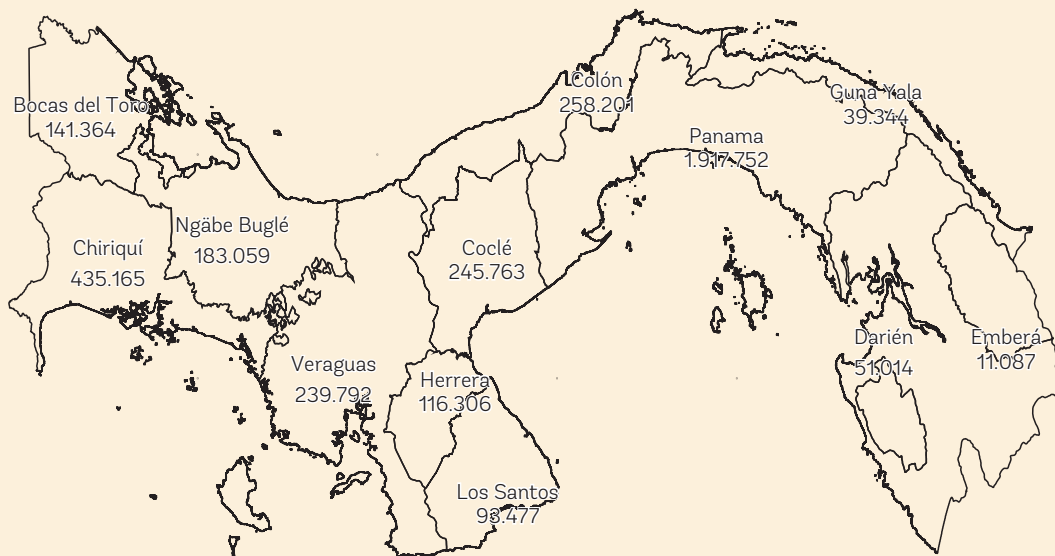


Source: World Bank data.

### BOX 1.1 Indigenous Peoples Demographics and Data

Panama has a population of around four million people living in 10 provinces, 75 districts or municipalities, five collective and semi-autonomous Indigenous territories organized by ethnic groups (*comarcas*), and 620 *corregimientos*. The tenth province was created when the original Province of Panama was divided into two—Panama and Panama Oeste—in January of 2014. Due to the recent split, the analysis here looks at the original Province of Panama.

**FIGURE B1.1** Population by Province and *Comarca*



Source: INEC 2010.

Panama is home to eight Indigenous ethnic groups or “peoples,” namely the Ngäbe or Ngöbe (260,058), Kuna or Guna (80,526), Emberá (31,284), Buglé (24,912), Wounaan (7,279), Teribe/Naso (4,046), Bokota (1,959), and Bribri (1,068). The 2010 census shows that 196,059 indigenous persons live in *comarcas*, while 221,500 live in other areas. The *comarcas* and other indigenous territories enjoy significant autonomy and self-government through 10 Congresses and two Councils. The *comarcas* make up 22.2 percent of the country’s area, or 16,634 square kilometers, and comprise some of Panama’s richest natural resources and cultural diversity. Panama is also home to a population of Afro-descendants representing 9.2 percent of the national population in 2010. The majority live in Colón (29 percent), Darién (17 percent), and Panama City (11 percent).

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### BOX 1.1 continued

Data on the full population of the Indigenous Peoples and Afro-descendants is limited. The annual household survey used to measure welfare does not include an ethnicity variable. In most of the analysis here, the geographic variable *comarca* is used as a proxy for persons of indigenous origin. This has three problems: (i) this captures only the three largest *comarcas*; (ii) there are small numbers of non-indigenous people who live in the *comarcas*; and (iii) using the *comarca* variable excludes the half of the indigenous population that lives in other parts of the country from the analysis. There is also no way to identify Afro-descendants from the household survey because they are included in the urban or rural areas in which they live. The only data source that allows a comparison to be made of these two groups is the National Population and Housing Census carried out every ten years: these data are used as much as possible. Thus, the discussion of welfare of these groups is constrained. These knowledge gaps merit further attention in Panama.

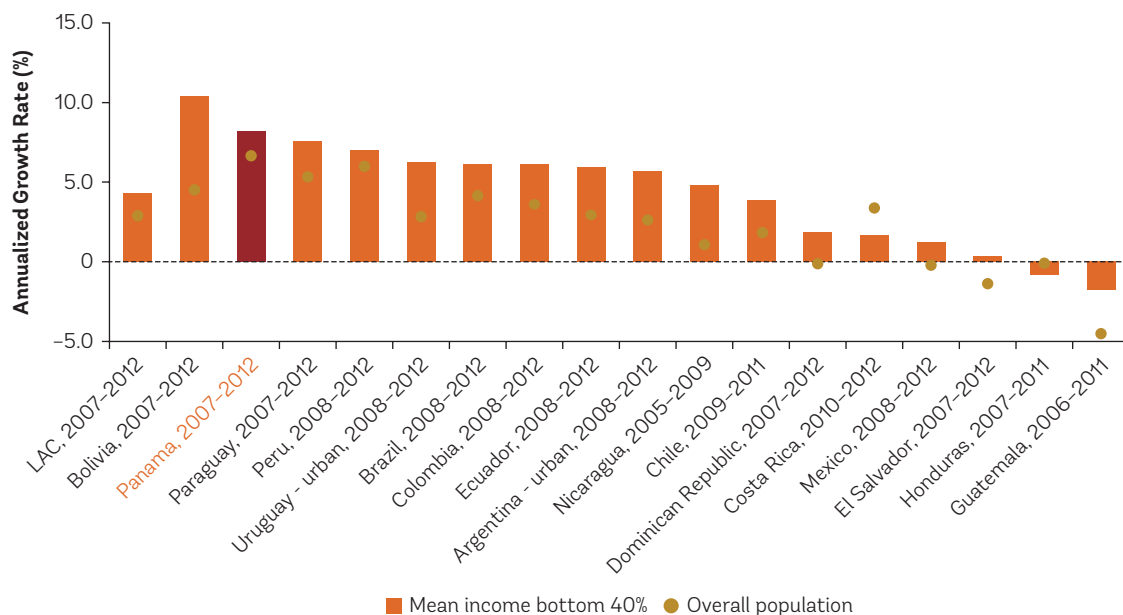
Source: INEC 2010.

national average). For example, the Ngäbe Buglé *comarca* has a poverty rate of 93 percent and an extreme poverty rate of 80 percent. These poverty rates surpass poverty among indigenous peoples in other countries including Bolivia, Ecuador, Guatemala, and Peru.<sup>3</sup>

Beyond the progress made on poverty reduction, Panama has also made significant progress on shared prosperity. Average per capita income, as measured by household surveys, grew by 6.6 percent between 2007 and 2012 whereas the average incomes of the bottom 40 percent of the population rose 8.2 percent (figure 1.5).<sup>4</sup> These statistics indicate not only that growth has been pro-poor—having a clear bias toward the poor—but also that the increase in their incomes has been significant: at this rate, the incomes of the poor would double every nine years. It is also worth noting that in Latin America only Bolivia saw greater income growth among the bottom 40 percent of the population.

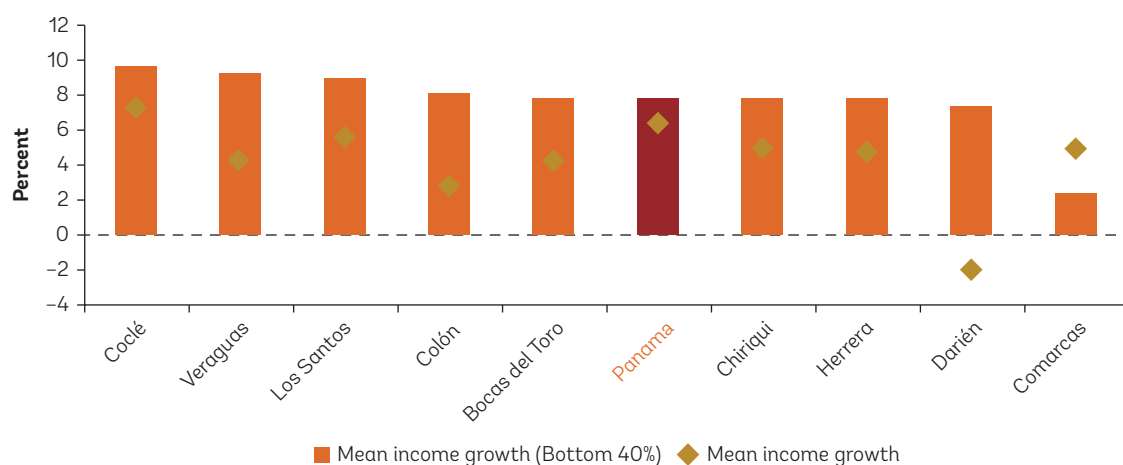
However, like the poverty reduction story, not everyone in the bottom 40 percent has shared equally in Panama's prosperity. The bottom 40 percent of the population has seen its income rise in all provinces (those that existed before January 2014) and the three *comarcas* (figure 1.6). Those among the bottom 40 percent of the national population who lived in Coclé, Veraguas, and Los Santos saw the highest average income growth—which in the case of Coclé was close to 10 percent. However, in the *comarcas* captured by the data, growth was much lower at only 2.4 percent. And only in the *comarcas* was the overall average income growth (five percent) greater than that of the bottom 40 percent. Compared with national data, the per capita income growth in the *comarcas* was 1.6 percentage points lower than the national growth rate; and the income of the bottom 40 percent was 3.7 times lower than the income of the bottom 40 percent at the national level. Indeed, as discussed later,

**FIGURE 1.5 Shared Prosperity in LAC, 2007–2012 (Annualized Growth Rate of Income for the Poorest 40% and the Overall Population)**



Source: Latin America and the Caribbean Equity Lab tabulations of the Socio-Economic Database for Latin America and the Caribbean (SED-LAC) produced by the Center for Distributive and Social Studies (CEDLAS and the World Bank); World Development Indicators (database), World Bank, Washington, DC, <http://data.worldbank.org/products/wdi>.

**FIGURE 1.6 Shared Prosperity Across the Country (Mean Income Growth, Percent)**



Source: Authors' calculations based on Panama household survey, *Encuesta de Mercado Laboral (EML)*, rounds 2007 and 2011 (INEC 2007 and 2011).

even though the number of extremely poor has declined significantly in the country, the *comarcas* historically have been, and are now even more so, the places where extreme poverty is most prevalent in Panama.

The extremely poor are highly concentrated in remote geographic areas where Indigenous Peoples live. The indigenous populations living in the three largest *comarcas* represent 42 percent of the extremely poor, but at the same time represent less than seven percent of the country's population (although Indigenous Peoples represent 12.2 percent of the total population). Many of the Indigenous Peoples in Panama live outside but in close proximity to the *comarcas* with collective title, as is the case of the Naso territory, two Wounaan communities in Darién, and the Dagar-gunyala collective territory. Many others are awaiting territorial recognition and titling, as is the case of the Bri-Bri and many communities in Darién. The communities without land tenure security are at the greatest risk because of land invasions by non-indigenous farmers, the Revolutionary Armed Forces of Colombia (in the case of Darién), and parties interested in resource extraction.

At the same time, lack of opportunities within these areas has forced many indigenous people to migrate to cities. According to the 2010 census, only 40 percent of the Guna population now lives in the three Guna *comarcas*; 52.3 percent of Ngäbe and Buglé people live within their *comarca*; and in the case of the Emberá and Wounaan, only 24 percent of the population is living within the *comarca*.<sup>5</sup> Internal migration among the indigenous population in Panama is higher than in most other Latin American countries.<sup>6</sup>

Nonetheless, inequality has not been an issue exclusive to the Indigenous Peoples. There is a universal perception in Panama

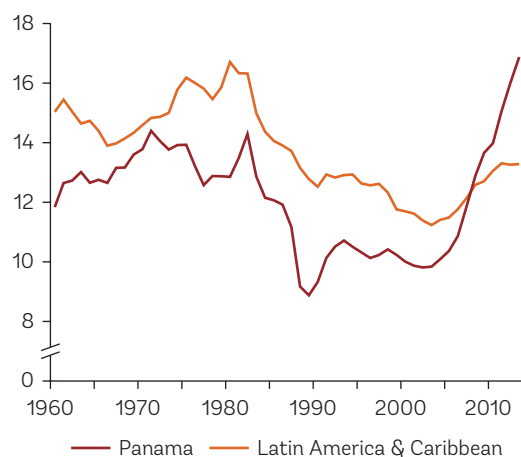
that Afro-descendants have also been excluded from the country's economic growth and face difficult challenges, including lack of access to basic services, such as water, electricity, sanitation, education, employment, health services, and political participation. While the limited data available do not completely support this perception, qualitative studies indicate that Afro-descendants rank among the poorest and most vulnerable groups in the country.<sup>7</sup>

This raises a question about the factors driving poverty reduction in Panama. Over the past decade, Panama has been one of the fastest growing economies worldwide. With an average annual growth rate of 7.2 percent between 2001 and 2013, Panama has outpaced most of its peer countries and grown significantly faster than the average country in any of the analyzed peer groups.<sup>8</sup> The country has been one of the few that have been able to catch up with the United States in terms of per capita gross domestic product (GDP) in recent years (figure 1.7) and Panama has been an outlier in terms of postcrisis recovery (figure 1.8); while most countries were not able to catch up to their pre-crisis dynamism, Panama had higher growth after the crisis than before. Even though the growth rate is expected to moderate to around seven percent in 2014, this is one of the highest rates for that year. In addition, not only has growth been high, but it has also been accompanied by progressive distributional change.

Growth accounted for about 80 percent of poverty reduction and the reduction in inequality accounted for the remaining 20 percent between 2007 and 2012. The recent high GDP growth rates experienced by Panama would suggest that growth has played a predominant role in explaining



**FIGURE 1.7 Panama's GDP Per Capita as a Share of U.S. Versus Latin America (Percent, Constant 2005 US\$)**



Source: World Development Indicators (database), World Bank, Washington, DC, <http://data.worldbank.org/products/wdi>.

poverty reduction; inequality has fallen only slowly (figure 1.9). We test this hypothesis by performing a Datt-Ravallion decomposition,<sup>2</sup> which attempts to identify the relative contributions of growth and changes in inequality for any given poverty change. The results of this decomposition are displayed in figure 1.10 confirming the hypothesis that growth accounted for about 80 percent of the poverty gains and inequality for about 20 percent. This is in contrast to the Latin American region, where growth has been admittedly lower and the gains on the inequality front more, where over the same period of time, growth would have accounted for 57 percent of poverty reduction and inequality for 43 percent.

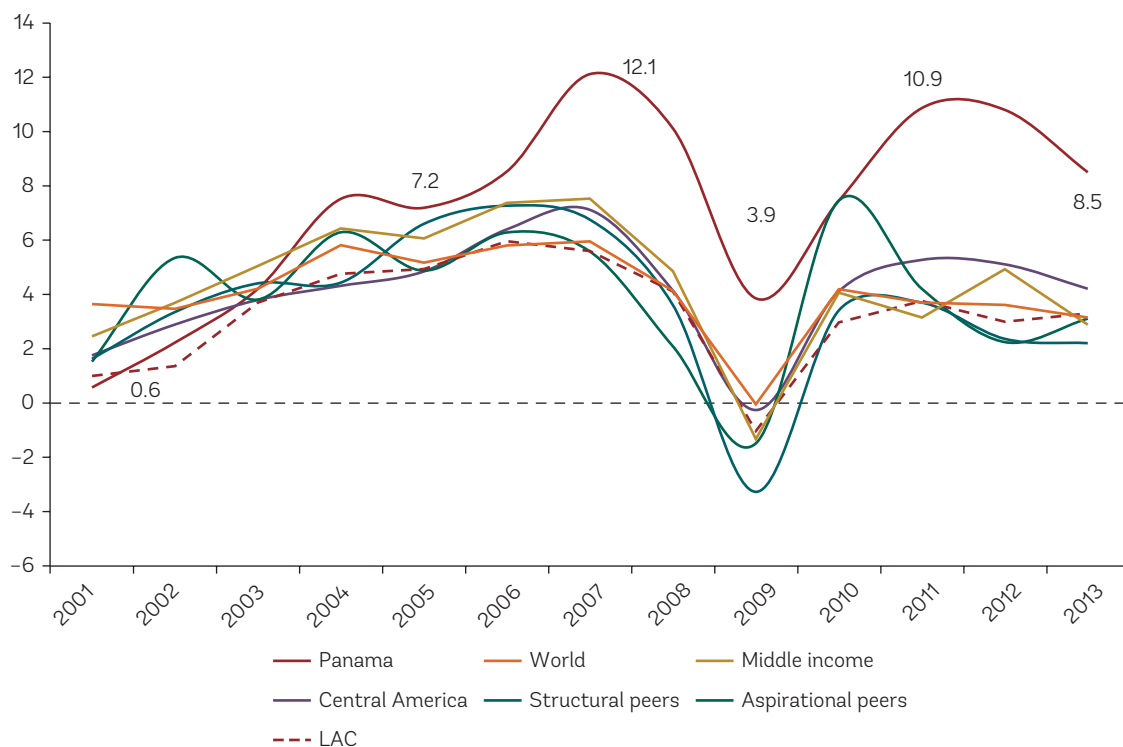
The positive changes in poverty measured by cross-sectional household data hide some of the movements of the population in and out of poverty. A synthetic panel, constructed

a la Dang et al. (2011), shows that the 2007–2012 period saw people moving out of, but also into, poverty. The synthetic panel results in terms of poverty numbers do not completely align with the national figures, but the analysis does highlight several important movements of households (figure 1.11 and figure 1.12).<sup>10</sup> First, households with low educational levels (primary or below) and those engaged in agriculture were the most likely to have been poor in 2007 and remained poor in 2012. Second, households in the agricultural sector and in the bottom income quintile were the least likely to move out of poverty and most likely to fall into poverty. Finally, urban areas overall showed the greatest movements out of poverty.

But what sources of income have helped people move out of poverty? To understand the different factors that have contributed to poverty reduction, it is important to explore developments in labor markets (which typically generate the main income of the poor) as well as the role of public spending, including transfers (both cash and in kind) to the poor. The rest of this section explores these issues.

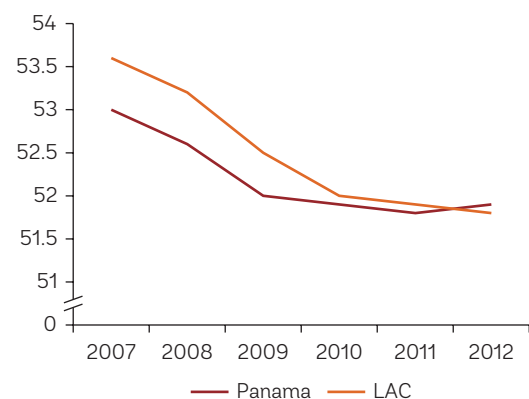
Panama has been a top performer in terms of creating jobs, and the poor have benefited from it. In 2013, the employed labor force in Panama was 66 percent higher than in 2001, an increase that far exceeds those of peer countries.<sup>11</sup> For example, the corresponding increase among the structural peer countries was 17 percent, and in Central America as a whole it was 44 percent (figure 1.13). The bottom 40 percent have benefitted from this job creation. While the bulk of net new jobs required completed secondary education or higher, 11.5 percent of new jobs were for unskilled labor with primary or incomplete secondary education. In 2012, the average years

**FIGURE 1.8 Real GDP Growth in Panama and Its Peer Countries 2001–2013 (Percent Change)**



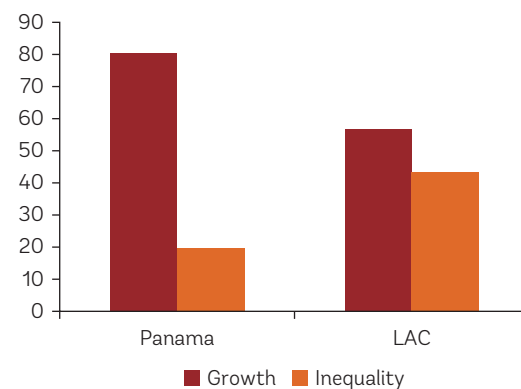
Source: World Economic Outlook (WEO) indicators, <https://www.imf.org/external/pubs/ft/weo/2014/01/weodata/index.aspx>.  
Note: LAC=Latin America and the Caribbean.

**FIGURE 1.9 Gini Coefficient in Panama and LAC, 2007–2012 (Index)**



Source: World Bank.

**FIGURE 1.10 Datt-Ravallion Decomposition of Poverty (Percent)**



Source: Authors' calculations based on Panama household survey, Encuesta de Mercado Laboral (EML), rounds 2007 and 2011 (INEC 2007 and 2011).

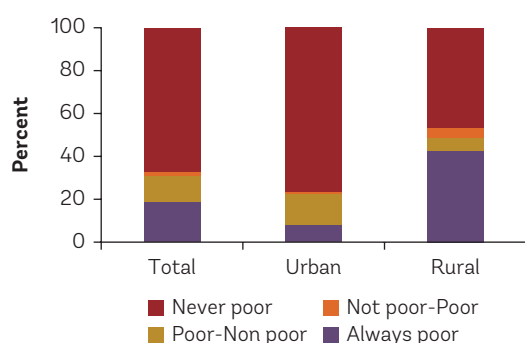
of schooling of the bottom 40 percent of the population was 7.6 years compared to 11.7 for the rest of the population (figure 1.14).

There is a large gap between the extremely poor and the rest of the population. The heads of extremely poor

households in Panama have only 5.1 years of education—4.5 years fewer than the national average. They are also concentrated in the agricultural sector and work mainly as self-employed or unpaid family workers. The households of the extreme poor have much higher dependency ratios, driven by a much greater share of young children, and lower life expectancy. For every worker in an extremely poor household, there are 2.2 dependents, while the national average is 1.3. The dependency ratio for working age people (15 to 64 years) is 1.25 for extremely poor households, while the national average is 0.5.

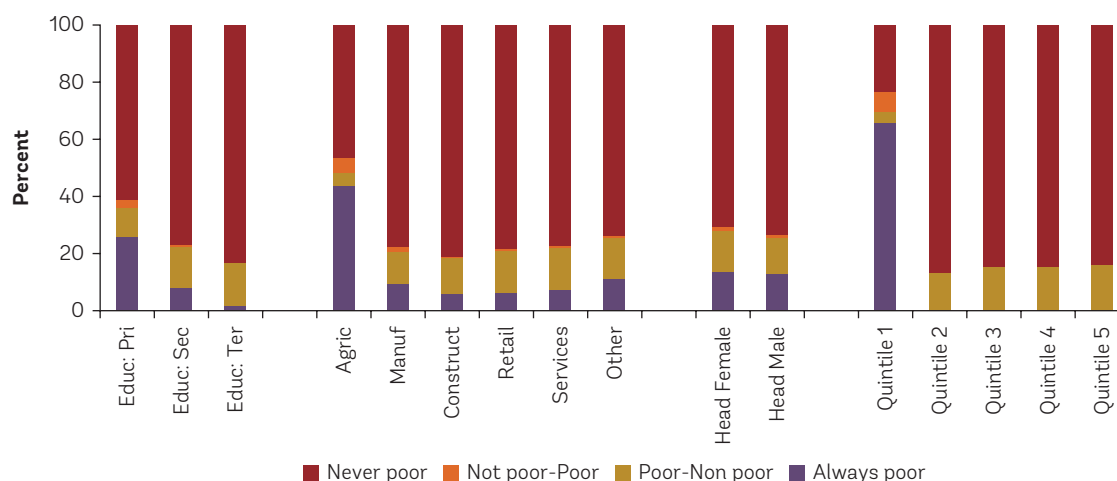
Social spending has increased in real terms also benefitting the poor. Between 2007 and 2012, education and health spending have stayed relatively flat at around four percent of GDP (in a context of very rapid GDP growth), while social protection has decreased by half a percentage point of

**FIGURE 1.11 Movements Out of Poverty (Percent)**



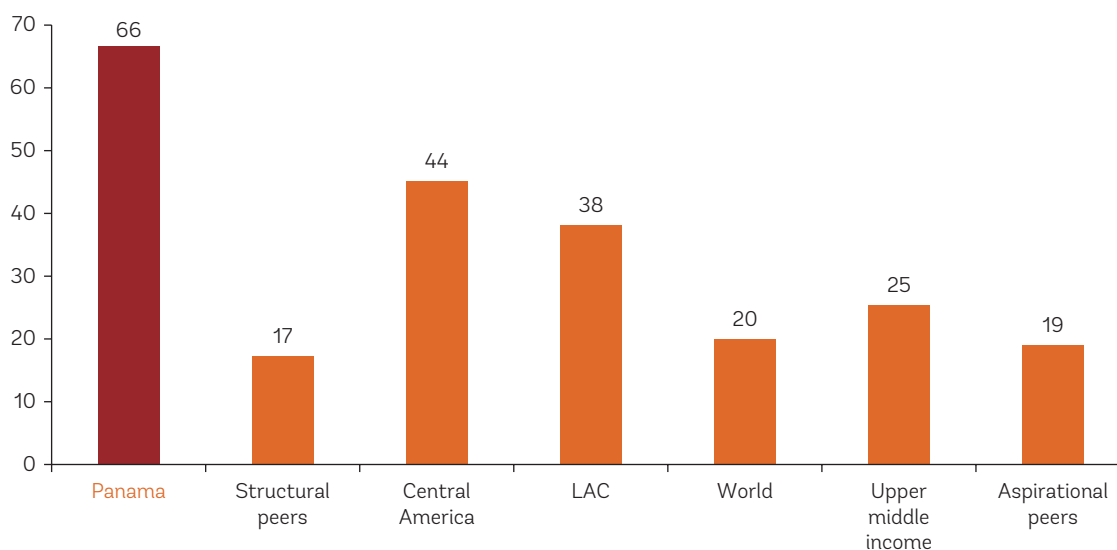
Source: Authors' calculations based on Panama household survey, Encuesta de Mercado Laboral (EML), rounds 2007 and 2011 (INEC 2007 and 2011) and Dang et al. (2011) methodology.

**FIGURE 1.12 Changes in Poverty Status by Original Characteristic (Percent)**



Source: Authors' calculations based on Panama household survey (EML) rounds 2007 and 2011 (INEC 2007 and 2011) and Dang et al. (2011) methodology.

**FIGURE 1.13** Employment Creation in Panama Between 2001 and 2013 Versus Its Peers (Percent Change)



Source: Author's estimations based on World Economic Outlook (WEO) indicators, <https://www.imf.org/external/pubs/ft/weo/2014/01/weodata/index.aspx>.

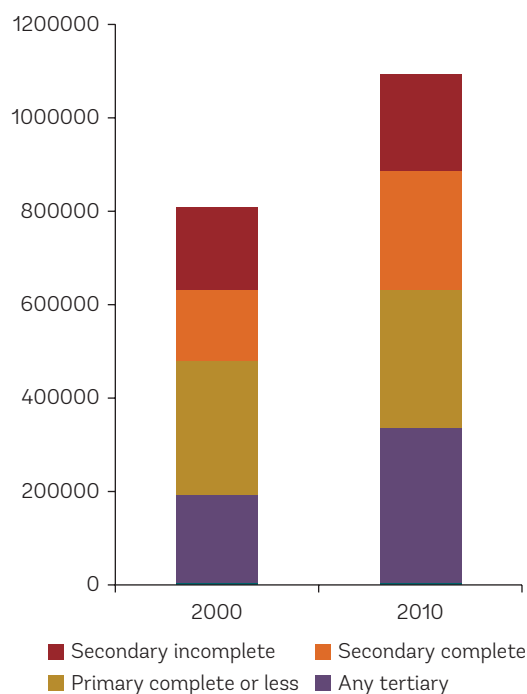
GDP (figure 1.15). With 13.3 percent of GDP in 2013, Panamanian social expenditure was in the middle range for Central America. In that year, Costa Rica dedicated almost 21 percent of GDP to social expenditure, and Guatemala spent only eight percent. In real terms, social spending has grown three percent annually over the analyzed period.<sup>12</sup> Although access to health and education services has improved for all Panamanians, significant inequalities persist with less access in rural and indigenous areas where a large percentage of the poor and extremely poor live. Chapter 4 of this report provides more detail on the incidence of social spending.

The country has continuously expanded the coverage of its social protection system. In 2006, *Red de Oportunidades*, a conditional

cash transfer program, was introduced to support families in poverty; in 2009, *100 a los 70* followed to support elderly in need; in 2010, *Beca Universal* was put in place to provide a cash transfer to children for school achievements; and in 2012, *Angel Guardian* was established to provide social assistance to people with severe disabilities in poverty or vulnerable conditions. Although the quality of the targeting of these programs differs and can be further improved, a large share of their benefits reaches the lowest income percentiles. Chapter 4 provides further detail on social protection, its incidence, and targeting.

Progress toward the twin goals has been achieved not only because of the pace of growth but also because of its low volatility. Panama has stood out not only in terms of

**FIGURE 1.14 Job Creation by Education Level (Total Number of Jobs)**

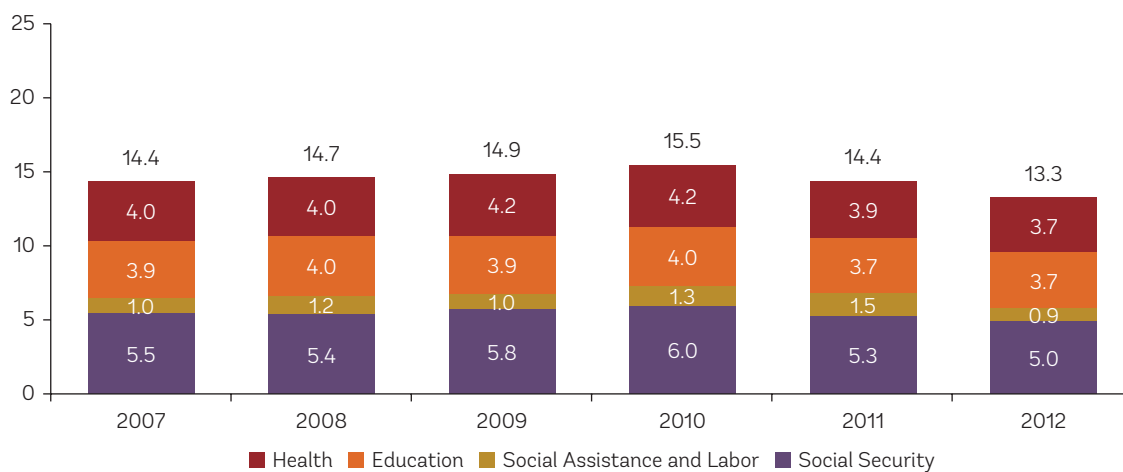


Source: Authors' calculations based on the Panama Population and Housing Census (INEC 2000 and 2010).

its fast economic growth but also in terms of the low volatility of that growth (figure 1.16). In the sample of peer countries, only a few, such as Bolivia and Guatemala, had lower coefficients of variation of GDP growth, however at significantly lower average GDP growth rates. As mentioned before, the low volatility of economic growth is highly relevant for achieving the twin goals. This is due to the impact of overall output volatility on consumption as well as the negative link between macroeconomic volatility and equality.<sup>13</sup>

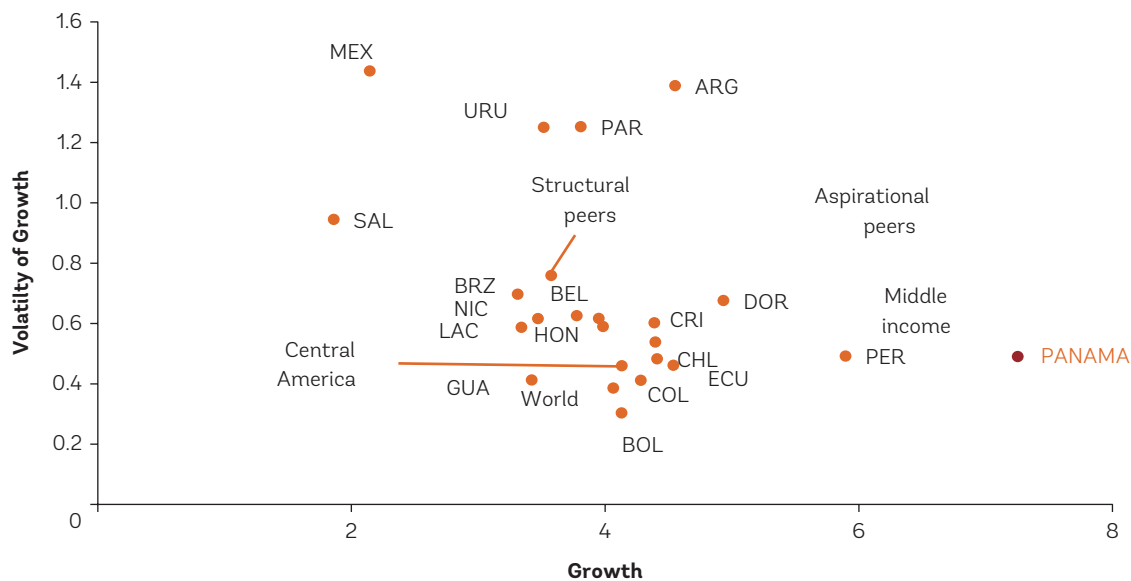
This report (i) explores the elements behind the observed growth, poverty, and inequality trends; (ii) identifies the factors that may affect the sustainability of Panama's recent performance and thus the priority areas for action or policy; and (iii) highlights specific opportunities for the country to continue as one of the best performers in the Latin American region on growth and poverty reduction. The rest of the report is structured as follows. Chapter 2 looks in more depth at the evolution and features of economic growth and what may affect it going forward. Chapter 3 compares Panama's progress to other countries to identify priority areas linked to maintaining growth and opportunities of which the country might well take advantage. The chapter contains a brief discussion of the prioritization process. Chapter 4 focuses on issues of inclusiveness, laying out the evidence of progress as well as the limits on this progress. Chapter 5 attempts to benchmark Panama's progress on inclusion to that of other Latin American countries, identifying ethnicity as a priority area and drawing out opportunities for action. Chapter 6 addresses the issue of sustainability from different lenses: economic, social, and environmental. Chapter 7, using an over-time benchmarking approach, lays out the case for water to be the final priority area and identifies opportunities for action. The final chapter covers knowledge gaps that arose during the process of preparing this report, gaps that would ideally be the focus of any subsequent analysis for Panama's ability to ensure inclusive and sustainable growth and make inroads on the twin goals.

**FIGURE 1.15 Panama's Social Spending by Sector (Percent of GDP)**



Source: World Bank (forthcoming).

**FIGURE 1.16 Growth Versus Volatility in Panama and Its Peer Countries, 2001–2013 (Average Percent Change)**



Source: World Economic Outlook (WEO) indicators, <https://www.imf.org/external/pubs/ft/weo/2014/01/weodata/index.aspx>.

## Notes

1. Unless otherwise stated, the analysis uses national definitions of poverty and shared prosperity (both poverty lines and the income aggregate). The analysis focuses on the 2007–2012 period for reasons of data comparability that limit the use of longer time trends. While every effort has been made to replicate the welfare measure used in Panama, there are some slight discrepancies (see Cadena et al. 2013) that are not expected to change the story in any way. The value of the national poverty line was US\$7.9/day urban and US\$5.8/day rural.
2. Ferreira et al. (2015).
3. Using an international poverty line of US\$4 per person per day. This is based on the harmonized dataset SEDLAC (CEDLAS and World Bank) 2015 and, Economic Commission for Latin America and the Caribbean, 2014.
4. The process of data harmonization for cross-country comparisons means that the comparable results differ from those for Panama alone as the construction of measures for one country are quite different from what has to be done in a multi-country context.
5. Based on Population and Housing Census of Panama.
6. Economic Commission for Latin America and the Caribbean (ECLAC) (2014).
7. Generating quantitative data on Afro-descendants will be necessary to create an accurate picture of absolute and relative poverty levels of this ethnic group.
8. Appendix A contains the types of peer countries (regional, aspirational, structural) and the countries included in each peer group.
9. See Datt and Ravallion (1992).
10. The synthetic panel uses a different poverty line (US\$4 per day) and, by construction, can only include a subset of households, i.e., those that have the potential to be in both periods. Thus households with very young heads in 2012 will be excluded from this analysis. Both of these characteristics of the synthetic panel analysis mean that the estimated levels of poverty will differ between this analysis and the national figures.
11. Appendix A provides detailed definitions of the different peer groups. Based on IMF WEO data on changes in the labor force corrected for unemployment.
12. This growth rate is based on 2007 constant US\$ and taking into account purchasing power parity. When spending in constant US\$ is used, the increase appears larger.
13. See for example Breen and Garcia-Penalosa (2004); Garcia-Penalosa and Turnovsky (2004); Huang, Fang, and Miller (2012); and Loayza et al. (2007).

## References

- Breen, R., and C. García-Peñalosa. 2005. "Income Inequality and Macroeconomic Volatility: An Empirical Investigation." *Review of Development Economics* 9 (3): 380–398.
- Cadena, K., C. Cardoza, L. Lucchetti, and K. Scott. 2013. "Central America en el Nuevo Milenio: Seis Historias Diferentes de Pobreza y Desigualdad." World Bank.
- Dang, Hai-Anh, Peter Lanjouw, Jill Luoto, and David McKenzie. 2011. "Using Repeated Cross-Sections to Explore Movements in and Out of Poverty." Policy Research Working Paper No 550, World Bank, Washington, DC.
- Datt G., and M. Ravallion. 1992. "Growth and Redistribution Components of Changes in Poverty Measures: A Decomposition with Applications to Brazil and India in the 1980s." *Journal of Development Economics* 38: 275–295.
- Economic Commission for Latin America and the Caribbean (ECLAC), 2014. "Informe Los Pueblos Indígenas en América Latina", Santiago de Chile.
- Ferreira, F., J. Messina, J. Rigolini, L. Lopez-Calva, M. Lugo, and R. Vakis. 2015. *Economic Mobility and the Rise of the Latin American Middle Class*. Washington, DC: World Bank.
- Garcia-Penalosa, C., and S. Turnovsky. 2004. "Macroeconomic Volatility and Income Inequality in a Stochastically Growing Economy." Conference volume of conference

- on “Economic Growth and Income Distribution: On the Nature and Causes of the Wealth of Nations,” Lucca, Italy, June 16–18.
- Huang, H., W. Fang, and S. Miller S. 2012. “The Effect of Growth Volatility on Income Inequality.” Working Paper, University of Nevada.
- INEC (Instituto Nacional de Estadísticas y Censo). 2007–2013. *Encuesta del Mercado Laboral*. Contraloría, Panama.
- INEC (Instituto Nacional de Estadística y Censo). 2000 and 2010. *Censo Nacional de Población y Vivienda*. Contraloría, Panama.
- Loayza, N., R. Ranciere, L. Servén, and J. Ventura. 2007. “Macroeconomic Volatility and Welfare in Developing Countries: An Introduction.” *The World Bank Economic Review* 21 (3): 343–357.



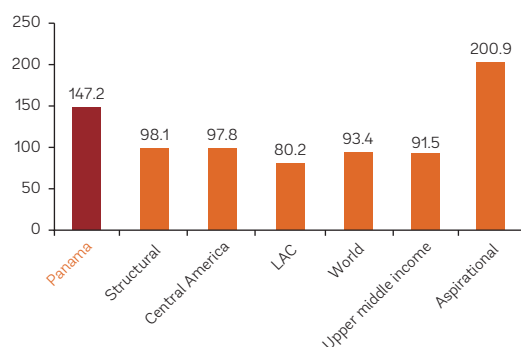
## 2. The Nature of Panama's Economic Growth

**PANAMA'S EXCEPTIONAL GROWTH PERFORMANCE** over the past decade stems from an open and competitive economy. Panama's real growth since 2001 has averaged 7.2 percent, more than double the average for Latin America and the Caribbean (LAC). The country has been one of the few that have been able to catch up with the United States in terms of per capita gross domestic product (GDP) in recent years (figure 1.7), and its growth rate displayed low volatility in international comparison (figure 1.16). The economy is one of the most open in the region (figure 2.1) and is well integrated into the global economy. It has done well in leveraging its geographical position, including through the Panama Canal, transforming itself into a well-connected logistics and

trade hub and a financial center. Through continuous improvements in infrastructure, Panama has established a port network that is on par with major international logistics hubs and an airport network that allows the country to function as a major regional passenger hub for connecting passengers between North, Central, and South America. Thus, the country has consolidated its position as the most competitive economy in Central America and is second after Chile in LAC, according to the 2014–15 Global Competitiveness Report (Schwab and Sala-i-Martin 2014).

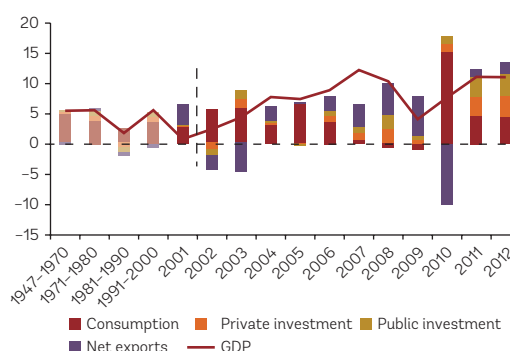
In recent years, five main elements have explained this growth performance: (i) the transfer of the Canal to Panama that has allowed Panama to benefit from the growth of

**FIGURE 2.1 Panama's Trade Openness Compared to Its Peer Countries, as Measured by the Share of Exports and Imports of Goods and Services in GDP (Percent of GDP)**



Source: World Development Indicators (database), World Bank, Washington, DC, <http://data.worldbank.org/products/wdi>.

**FIGURE 2.2 Contribution of Aggregate Demand Factors to Economic Growth from 1947 to 2013 (Percentage Points)**



Source: Authors' estimations based on the National Institute of Statistics of Panama (INEC) (accessed November 17, 2014), <http://www.contraloria.gob.pa/inec/>.

world trade; (ii) the successful management and expansion of the Canal that spilled over to growth in specific sectors; (iii) the increasing role of public investment; (iv) the parallel increase in foreign direct investment (FDI) and private investment; and (v) a stable macroeconomic environment. The rest of this section discusses these elements.

## The Canal and Trends in World Trade

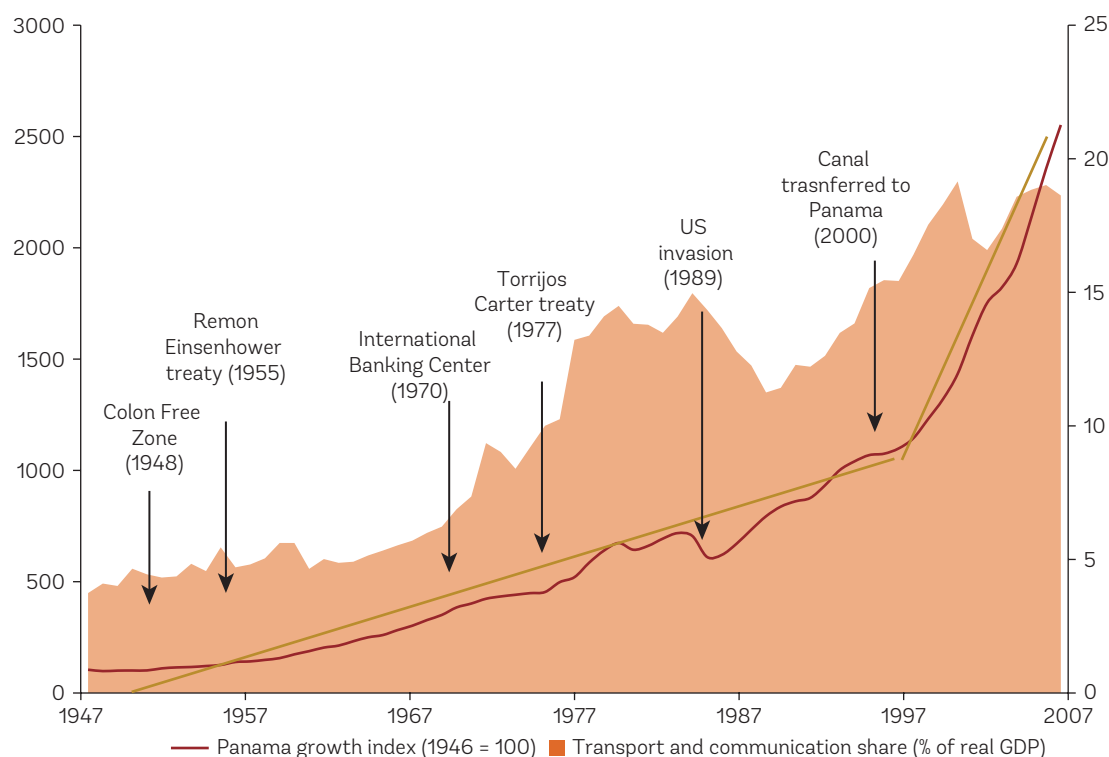
**THE ACCELERATION OF GROWTH** followed the transfer of the Canal to Panama and coincided with its successful management. The United States built the Panama Canal zone in the ten-year period from 1904 to 1914 after receiving a concession for the construction and operation of the Canal and the areas surrounding it. In 1977, the two countries signed the Torrijos-Carter Treaties that laid the foundation for the gradual return of the Canal to the Panamanian government. On December 31, 1999, the transfer became effective.<sup>1</sup> Since then, the Canal has been managed by an autonomous government agency, the *Autoridad del Canal de Panama* (Panama Canal Authority, or ACP), which is widely recognized for its institutional capacity and efficient management. Even though there is no stringent proof of causality, the increased trend of the growth of the transport and communications sector in particular seems to have followed the return of the Canal to Panama. After the transfer in 1999, trend growth, both of the transport and communications sector, as well as of the economy as a whole, have accelerated (figure 2.3).

The Canal has allowed the country to benefit from the increased world trade due to the fast growth of large emerging economies,

such as China. The recent catching up with United States per capita income seems to have started in 2003 (figure 2.4). Even though Panama's convergence towards the United States was faster than that of LAC as a whole, the inflection points coincide. Therefore, it seems that a set of common factors might have driven both Panama's take off as well as the resurgence of growth in the rest of Latin America, albeit by different magnitudes. A forthcoming World Bank study suggests that these common factors are associated with the relatively fast growth of large emerging markets, such as China.<sup>2</sup> However, it is likely that the main channels of transmission from the growth of China to Panama have been different from those affecting other fast-growing Latin American countries, such as Bolivia, Chile, Colombia or Peru: for Panama, it is the Canal, rather than commodities.

Transshipment of goods originating in and destined for China has surged, and the increases in revenues from the Canal between 2000 and 2013 are significant. During these years, the value of world trade almost tripled from US\$6,725 billion to US\$18,890 billion. At the same time, the value of trade that passed through the Canal increased by 16 percent, from US\$374 billion to US\$434 billion between 2006 and 2013. Overall the share of total world trade going through the Canal slightly decreased from three percent in 2006 to 2.3 percent in 2013. The origins and destinations of goods passing through the Canal reflect China's increasing role in world trade. In 2013, the share of goods originating in China was 7.6 percent, while the share of goods destined for China was 14.5 percent. Because the size of the largest ships that cruise the Canal has increased and therefore the same volume of

**FIGURE 2.3** Transport and Communication Share of GDP and GDP Growth  
(Percent, Growth Index 1950=100)



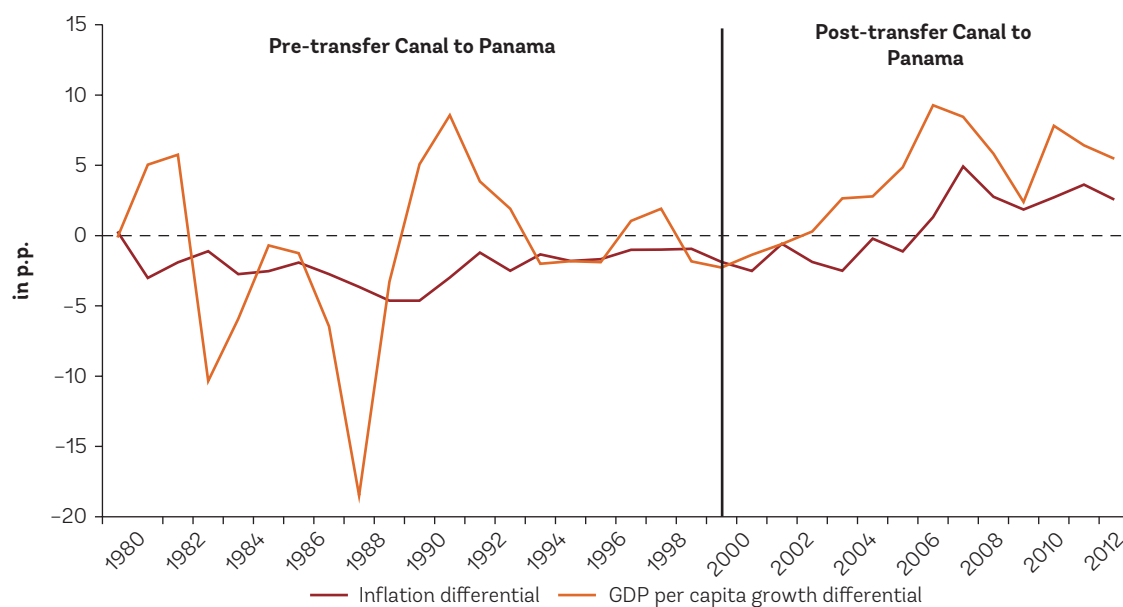
Source: Authors' estimations based on the National Institute of Statistics of Panama (INEC) (accessed November 17, 2014), <http://www.contraloria.gob.pa/inec/>.

merchandise could be transported through the Canal with fewer shipments, overall passages through the Canal have declined from 12,198 vessels in 2001 to 12,045 in 2013.<sup>3</sup> The increase in trading volumes and passages has led to an increase in collected tolls from US\$580 million to US\$1.847 billion over the same period, and 1.7 and 2.4 percent of GDP in non-tax revenue to the government.

The resilience of Canal revenues is due to both the variety of goods going through the Canal and a proactive fee policy by the ACP. The three main types of cargo going through the Canal are containers, grains, and oil

(table 2.1). Containers mainly carry different types of manufactured goods and minerals. The ACP constantly adjusts fees in order to compete worldwide, and the fees are based on volume and weight of the cargo (not the value). For this purpose, a special measurement has been created, the Panama Canal tons.<sup>4</sup> As a result, Canal revenues have continuously increased even in years when total cargo was declining, as for example in 2009. Moreover, the variety of goods as well as the adjustments in fees has decoupled Canal revenues from the price movements of any one good. Even fluctuations in overall commodity prices that commoved with the value of

**FIGURE 2.4** Panama-U.S. Growth Differential (Percentage Points, Panama GDP pc Growth Minus U.S. pc growth p.p.) and Inflation Differential



Source: World Bank 2015.

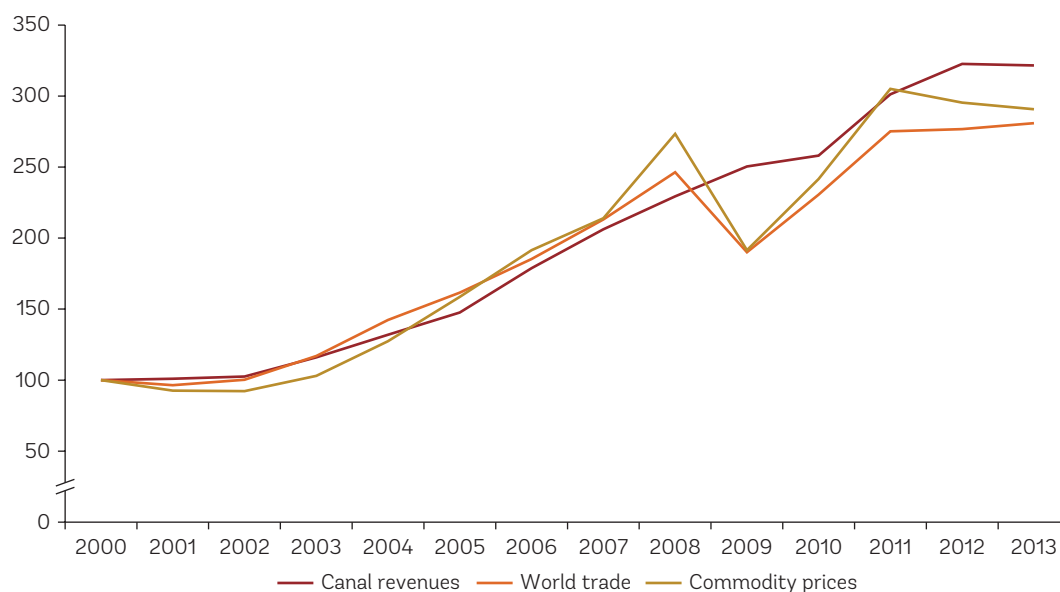
Note: pc=per capita; p.p.= percentage points.

**TABLE 2.1** Panama Canal Traffic by Type of Cargo

Year	Total Cargo (Panama Canal tons)	Containers	Grains	Oil	Others	Vessels (number of ships)
			(% of total cargo)			
2001	193.2	30.7	28.1	17.6	23.7	12198
2002	234.9	28.1	22.5	12.5	36.8	11862
2003	242.7	32.4	20.6	10.6	36.4	11725
2004	266.9	32.4	20.0	12.5	35.1	12518
2005	279.1	35.0	19.7	12.4	32.9	12648
2006	296.3	38.2	19.9	11.1	30.8	12772
2007	312.8	41.1	16.0	12.7	30.3	13234
2008	309.6	40.2	16.4	13.9	29.6	13147
2009	299.1	39.6	19.9	16.1	24.4	12855
2010	300.8	34.8	24.1	15.5	25.6	12591
2011	322.1	35.3	24.8	15.2	24.7	12989
2012	333.7	35.9	25.0	15.5	23.6	12862
2013	320.6	36.7	16.5	22.7	24.1	12045

Source: ACP and World Trade Organization.

**FIGURE 2.5** Panama Canal Revenues, Commodity Index, and World Trade, 2000–2013 (Nominal Index, 2000=10)



Source: ACP and World Trade Organization.

world trade have had little impact on revenues (figure 2.5).

## The Impact of the Canal on Growth in Specific Sectors

**THE CANAL HAS AFFECTED** the Panamanian economy both directly and indirectly. In addition to the direct effects through transport and communication as well as the ongoing construction to expand the Canal, Canal operations have positively affected the rest of the economy. The Canal drives the bulk of Panamanian service exports.<sup>5</sup> In particular, it generates revenues for the local economy and creates employment in the logistics sector. The recent expansion of the Canal is the largest project at the Canal since its

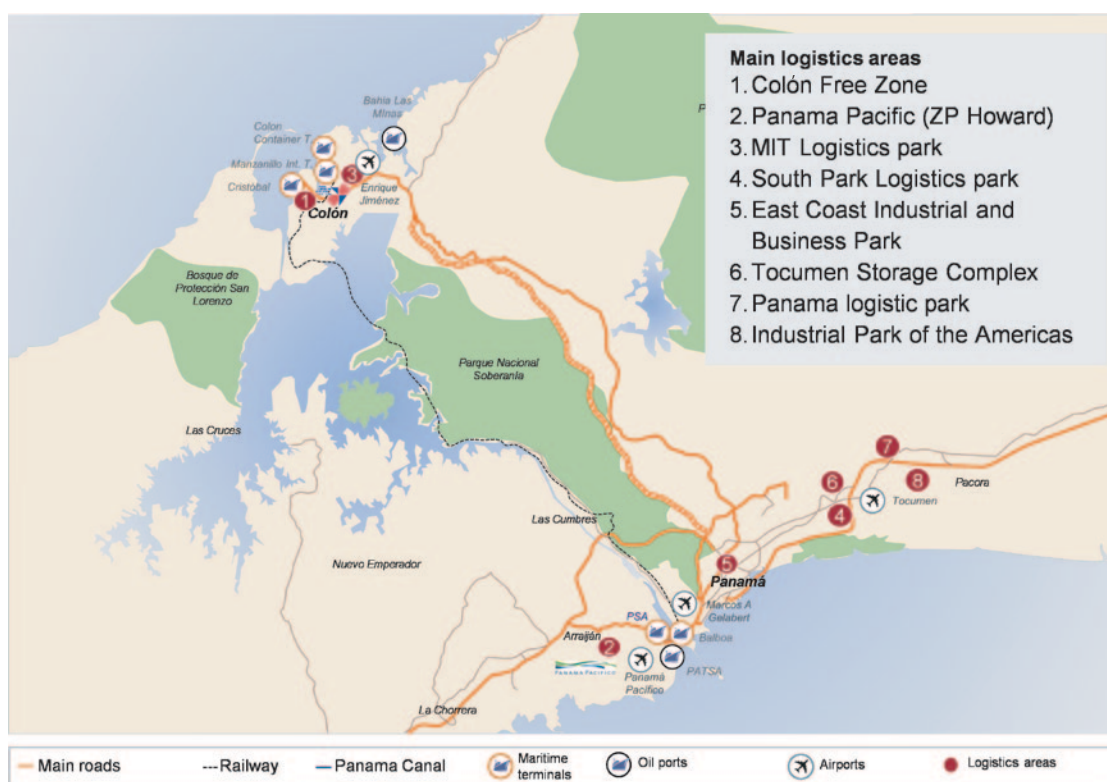
construction and the largest infrastructure project in Panama. The expansion will double the Canal's capacity, increasing economies of scale and international maritime trade. The expansion program consists of four main components: (i) a third set of new locks, (ii) a Pacific access channel, (iii) dredging of navigation channels, and (iv) improvements to water supply. The impact of the Canal expansion will benefit the economy through the construction stage and through the increase in traffic, which in turn is expected to boost Canal-related activities. The government is also expected to have a significant inflow of additional revenues.<sup>6</sup>

Taking advantage of its geographic position and the Canal, Panama has transformed itself into a regional logistics hub performing very well on indicators of connectivity and logistics. The country has developed a

sophisticated transport infrastructure around the Canal (figure 2.6). In particular, Panama has first-world infrastructure assets, with the Panama Canal as an axis for structuring the development of its logistics services. Currently, the majority of logistics operators of the world have permanent operational presence in Panama. This has resulted in the availability of a wide range of logistics services, mainly devoted to maritime cargo. It is one of the most connected countries in the region and has the highest Liner Shipping Connectivity Index (LSCI) in the LAC region (Panama has achieved a score of 45, ahead of Mexico, 42, and Brazil,

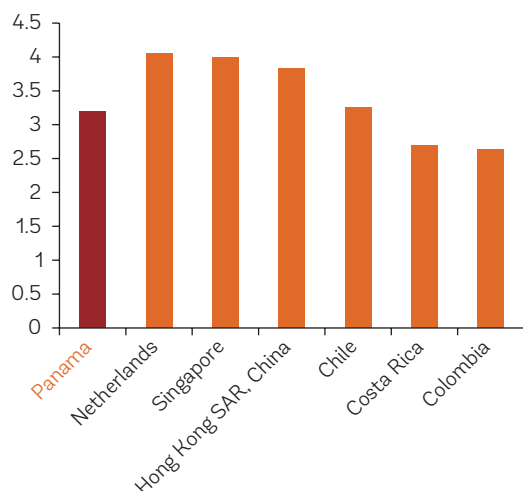
37—and even ahead of developed countries like Canada, 38).<sup>2</sup> Its geographic position and the Panama Canal give it an advantage when compared to other countries in the region. However, connectivity falls short of what other major logistics hubs such as Singapore and Hong Kong SAR, China achieve (scoring 107 and 117, respectively) on the LSCI. In the same vein, Panama lags behind these economies in terms of the 2014 Logistic Performance Index (figures 2.7 and 2.8). Hence, the potential to attract additional services by developing value-added service infrastructure remains high. In the same vein, regional integration offers still

**FIGURE 2.6** Transport Infrastructure in the Canal Zone



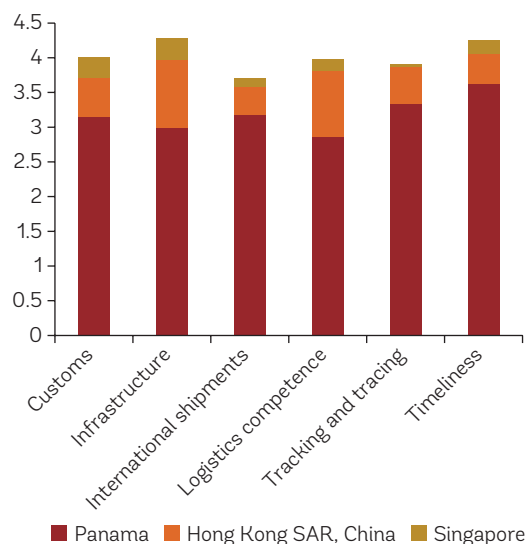
Source: "Implementation of Panama Maritime and Logistics Strategy—Phase II: Air Logistics Strategy for Panama." World Bank, February 2014.

**FIGURE 2.7 Logistic Performance Index**



Source: World Development Indicators (database), World Bank, Washington, DC, <http://data.worldbank.org/products/wdi>.

**FIGURE 2.8 Logistic Performance Index by Components**



Source: World Development Indicators (database), World Bank, Washington, DC, <http://data.worldbank.org/products/wdi>.

untapped opportunities for further efficiency gains and growth (box 2.1).

In terms of other forms of transportation, railway and air transport are important contributors to Panama's logistics success while roads are the weakest link. The Canal-railway corridor plays an important complementary function in the feeder service scheme of Panama's transshipment ports, linking the Atlantic and Pacific seaports on a 75-kilometer stretch along the Canal. Most of the ships passing through the Canal have their dedicated feeder services for either the American west or east coast and stop only once at either an Atlantic or Pacific transshipment port. Air transport is one of Panama's fastest growing sectors, contributing around US\$1 billion to the country's GDP and creating over 10,000 direct and indirect jobs. This is the result of having positioned Panama's Tocumen International

Airport as a major regional passenger hub for connecting passengers between North, Central, and South America. Air passenger volumes have tripled from 2003–2013 as has international passenger traffic, growing from 2.1 million to 7.7 million during the same period, of which 50 percent are transit passengers (the national carrier COPA has the main market share). Contrary to its excellent position in ports and airports infrastructure (figure 2.9), Panama ranks 48<sup>th</sup> in quality of road infrastructure.<sup>8</sup> Road density (190 miles of roads per one square kilometer of territory) is, together with that in Nicaragua, the lowest in Central America. Due to Panama's geographic location and the concentration of logistics around the Canal zone, 71 percent of all main routes are short-haul. Truck utilization is quite low, with a high percentage (50 percent) of empty backhauls and one of the highest wait times in Central America



## BOX 2.1 Regional Integration in Central America

The integration of markets and infrastructure networks has extraordinary power to stimulate growth through efficiency gains, technology spillovers, and investment. However, despite several notable bright spots in economic cooperation, the promise of greater regional integration among the Central American countries has remained largely unfulfilled.

Central America's efforts at forming greater regional economic ties have been ongoing for decades, most notably on the trade side stretching from the establishment of a Central American Common Market in the 1970s to the Dominican Republic–Central America Free Trade Agreement and the EU–Central America Free Trade Agreement. But there have also been several significant integration successes outside of trade, including in the energy sector with the *Sistema de Interconexión Eléctrica de los Países de América Central* (SIEPAC), a transmission line project which came into being in June 2013 and connects the electricity grids of Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama. That interconnection could enhance investment opportunities for large-scale renewable energy projects, as well as improve the efficiency and the security of electricity supply in Central America. Financial interconnectedness is also on the rise, with almost all the banks in the region expanding operations into neighboring countries, although differences in legal and regulatory frameworks have limited greater connectedness.

But by and large, Central America has not realized the gains expected from integration efforts. Exporters have not experienced appreciable growth in either export lines or markets since the signing of the regional free trade agreements. Bilateral trade in Central America remains an agenda of largely untapped opportunities, as evidenced by the negative elasticity of bilateral trade to different factors including adjacency and time-adjusted distance. This untapped potential can be attributed to deficiencies in infrastructure, burdensome processes, and congestion at the border crossings limiting trade, even where distances are short. Poor road quality, particularly on secondary and unpaved rural roads, has led to road transport prices averaging 17 cents per ton-kilometer in Central America, one of the highest road transportation costs in the world. Burdensome customs procedures, lack of regulatory harmonization (for example in terms of phytosanitary standards for agricultural exports), few established trade links, an atomized shipping industry, sparse information sharing on cargo and backhaul in trucking, and relatively few options and competition for shipping also limit the gains from free trade agreements. Transport and logistics costs can surpass 50 percent of the final price of goods traded, and it has been estimated that intraregional exports in Central America could have doubled if the region achieved the adjacency and time distance factors of a truly integrated region.

Source: Gordillo et al. 2010; Osborne, Pachon, and Araya 2014; and Marcelo et al. 2010.



**FIGURE 2.9** Line Shipping Connectivity



Source: "Implementation of Panama Maritime and Logistics Strategy—Phase II: Air Logistics Strategy for Panama." World Bank, February 2014.

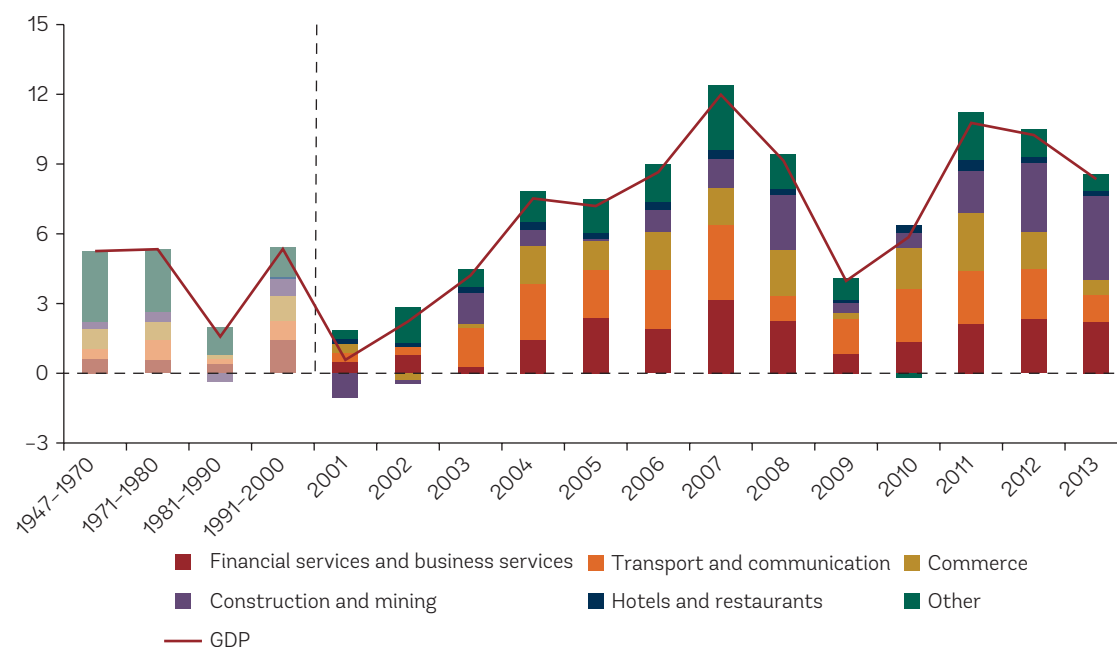
(0.05h/km). Security costs are above the Central American average, amounting to almost US\$600 per vehicle in 2011 (a 27 percent increase compared to 2008).

In terms of sectoral composition, growth has mainly stemmed from the transport and communications, financial services, commerce and construction sectors (Figure 2.10). In the past decade, services have accounted for more than 50 percent of GDP growth, boosted by transport and communication (explaining on average 1.8 percentage points of growth between 2001 and 2013) and financial and business services (explaining 1.7 percent). Commerce, a traditional growth contributor, has recently contributed less as a consequence of external conditions (1.4 percent on average between 2003 and 2011 versus 1.2 percent between 2012 and 13). In addition, construction has become one of the key drivers of the economy due to

larger investment (both public and private) in residential and non-residential infrastructure (1.9 percent contribution over the past five years). Another emerging growth driver has been hotels and restaurants (0.3 percent contribution over the past five years). In contrast, the contributions of agriculture and manufacturing have declined (from 0.2 and 0.3 percent respectively in 2005 to 0.1 and 0.1 in 2013).

Panama has continued to develop its position as an international financial center. The country has established itself as a major offshore banking center, hosting 80 banks with total assets of approximately US\$112 billion, nearly three times the size of the country's GDP. Most of the country's financing needs are met by the banking sector and not by equity or bond markets.<sup>2</sup> The competitive and sophisticated banking sector of Panama has shown that it is agile and

**FIGURE 2.10** Sectoral Contributions to GDP Growth from 1947 to 2013  
(Percentage Points)



Source: Authors' estimations based on the National Institute of Statistics of Panama (INEC) (accessed November 17, 2014), <http://www.contraloria.gob.pa/inec/>.

capable of adapting to a rapidly changing environment. The financial sector has a long tradition in Panama, preceding the Canal devolution. Its contribution to economic growth has been larger than those of traditional sectors, such as agriculture and manufacturing. The banking sector of Panama is widely regarded as healthy and sound. Most banks in Panama are well capitalized, profitable, and liquid, with nonperforming loans at very low levels. The sector has been driven by investment in logistics and transport, construction, and commerce, and by an increasing private consumption boosted by solid domestic demand. As a result, mortgage lending represents the largest share of total private credit in Panama at 30 percent, followed by commerce (19 percent

including Canal-related export activity and tourism) and consumer credit (16 percent). Mortgage lending has been growing slightly faster than GDP over the last few years, but the lack of data on real estate prices and the resulting absence of loan-to-value ratios represent a significant information gap for effective prudential management and supervision. Nonetheless, anecdotal evidence suggests that a doubling of urban real estate prices over the past five years has been roughly in line with the rapid pace of GDP growth.

Although commerce has been one of the traditional growth drivers, its contribution has shrunk recently because of external factors affecting the trade of the Colón Free Zone. Commerce has been driven by retail

sales as a result of the increase in Panamanian incomes and the expansion of malls and commercial stores and by wholesale sales, mainly from the Colón Free Zone. The Colón Free Zone is a giant bazaar cum container port where companies from across the world—many from East Asia where 65 percent of the merchandise originates—can market their products to buyers from the region, saving the latter the inconvenience of traveling to Asia and of stockpiling parts. This cluster has become a significant financial center serving, in particular, clients in Colombia and República Bolivariana de Venezuela as well as other parts of Latin America. In the last two years, the exports-import activity declined as a consequence of lower sales to the Dominican Republic, Puerto Rico, and República Bolivariana de Venezuela and the deceleration of sales to Colombia. Sales to República Bolivariana de Venezuela declined due to the problems of that country in accessing foreign exchange markets, while sales to Colombia remained stagnant due to increasing tariffs on textile and shoes exports.

The construction sector has been an important growth driver in recent years and created most of the new employment between 2007 and 2012, especially for low-skill workers. Over the past decade, construction exhibited strong growth explained by vigorous private investment in residential projects and public infrastructure projects, such as the expansion of the Panama Canal and the construction of line 1 of the Panama City Metro. In addition, in recent years, construction of hotels and storage has also contributed to the sector. Related indicators, such as concrete and cement production, have also exhibited

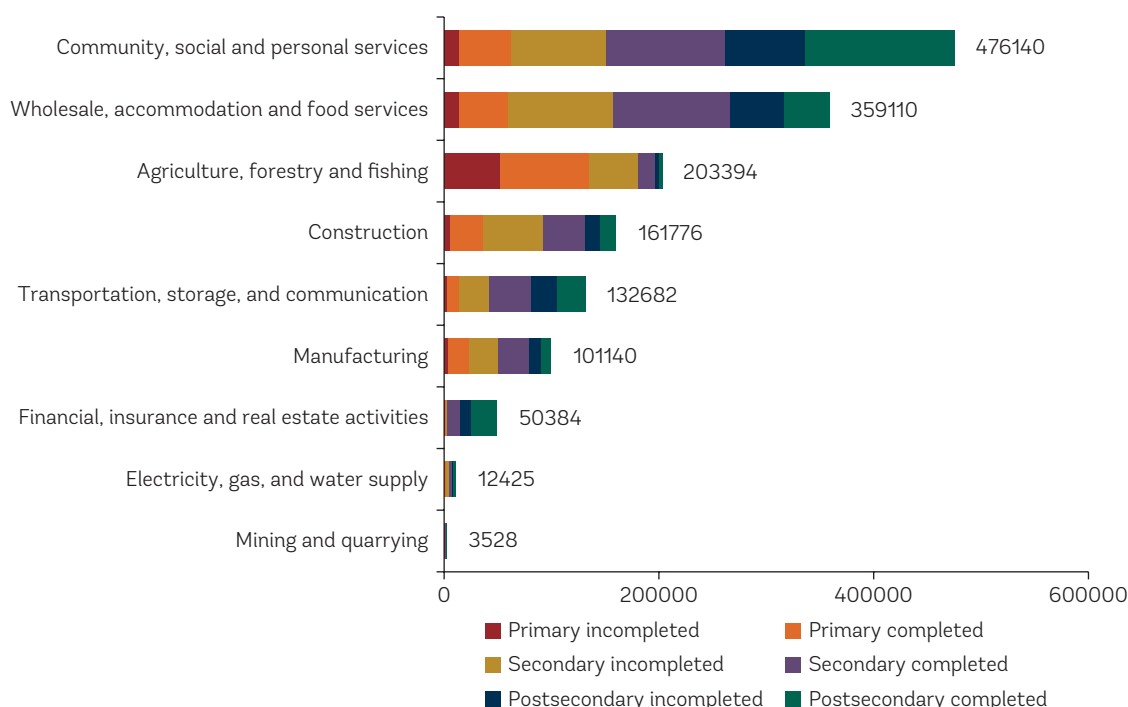
vigorous growth. Overall, construction has grown on average 21 percent per year in the last five years, contributing two percentage points of GDP. Meanwhile, the sector contributed 17 percent of total growth in employment. It is very likely that in the last decade there has been a migration of agricultural workers from the provinces to Panama City to work in the sector.

Construction is, after agriculture, the sector with the highest share of employees who have completed only secondary education or less (figure 2.11).

The role of agriculture and manufacturing for growth has decreased, although agriculture remains a key source of income for the bottom 40 percent. While still growing in absolute terms, the shares of both agriculture and manufacturing have declined in total GDP due to the strong growth of other sectors. The share of agriculture dropped from seven percent of GDP in 2000 to three percent in 2013, and manufacturing declined from 10 percent to five percent. While agriculture accounts for only a small share of GDP, it employs 17 percent of the workforce and has contributed to poverty reduction because it employs a large share of the bottom 40 percent (see Figure 1.5). Main products include rice and beans for domestic consumption and bananas, plantains, shrimp, sugar, pineapples, watermelons, and coffee for exportation. In terms of manufacturing, the textile industry is declining and the growth prospects of other industries, such as food processing, construction materials, and chemicals, are dim.

Panama is richly endowed with natural capital and has used it sustainably; nonetheless, the mining sector accounts for a small share of GDP so far although it could expand further in the future. Between 2008 and

**FIGURE 2.11 Employment by Sector and Education Level, 2012 (Total Number)**



Source: Authors' estimations based on the National Institute of Statistics of Panama (INEC) (accessed November 17, 2014). <http://www.contraloria.gob.pa/inec/>.

2012, the sector grew 14 percent, averaging two percent of the country's GDP. In 2011 and 2012, gold was the top export of Panama, totaling US\$117 million and US\$116 million, respectively. By 2013, the mining sector was producing US\$553 million or two percent of Panama's GDP. Construction materials accounted for most of this production, while gold production and exports started declining, down to US\$66 million in 2013 and to only US\$38 million in the first quarter of 2014 (a 97 percent drop vis-à-vis the same period in 2013), due in large part to a significant decline in gold prices that made production uneconomical.

## The Increasing Role of Public Investment

INVESTMENT HAS PLAYED A PROMINENT role in Panama's growth in recent years, supporting a shift of the country's growth model towards domestic demand (figure 2.12). Although private consumption has been an important driver of growth (contributing on average 4.2 percentage points since 2001), the contribution of net exports has fluctuated with external conditions. During the period from 2004 to 2008, net exports contributed significantly to overall growth through high export growth in services (accounting for 2.8 percentage points of overall growth).

During the crisis year 2009, net exports contributed positively to growth based on the significant contraction of imports. In the postcrisis years, the contribution of net exports to growth has been moderate as the expansion of imports exceeded that of exports. While investment, both public and private, contributed only around one percentage point to overall growth between 2001 until 2009, its contribution doubled thereafter, offsetting the lower contribution of net exports. Gross investment reached almost 30 percent of GDP in 2013 (figure 2.14).

The increased contribution of public investment to growth has been backed by an ambitious public investment program and the Panama Canal expansion. The share of public investment in GDP increased from 3.1 percent in 2001 to 13.7 percent in 2013. In 2010, the government launched a public infrastructure program comprising more than 100 projects such as highway upgrades; roads enlargement and upgrade in Panama City; airport infrastructure upgrades in six airports (including Tocumen Airport); a cold chain to support agriculture activity and reduce losses in the sector; the Panama Canal expansion; Metro line 1 and a Metro bus system in Panama City; Panama City Bay remediation; improvement in the sanitation services, hospitals, and 21 health care centers; Curundu urban renovation; 10 air naval stations; and four new prisons, among others. The total investment of the program is estimated at US\$16.7 billion with an overall execution above 80 percent.<sup>10</sup> The Panama Canal expansion project amounts to US\$5.2 billion and is currently planned to be finalized by the end of 2015. In addition, according to the government, this program was expected to generate at least 100,000 new jobs.

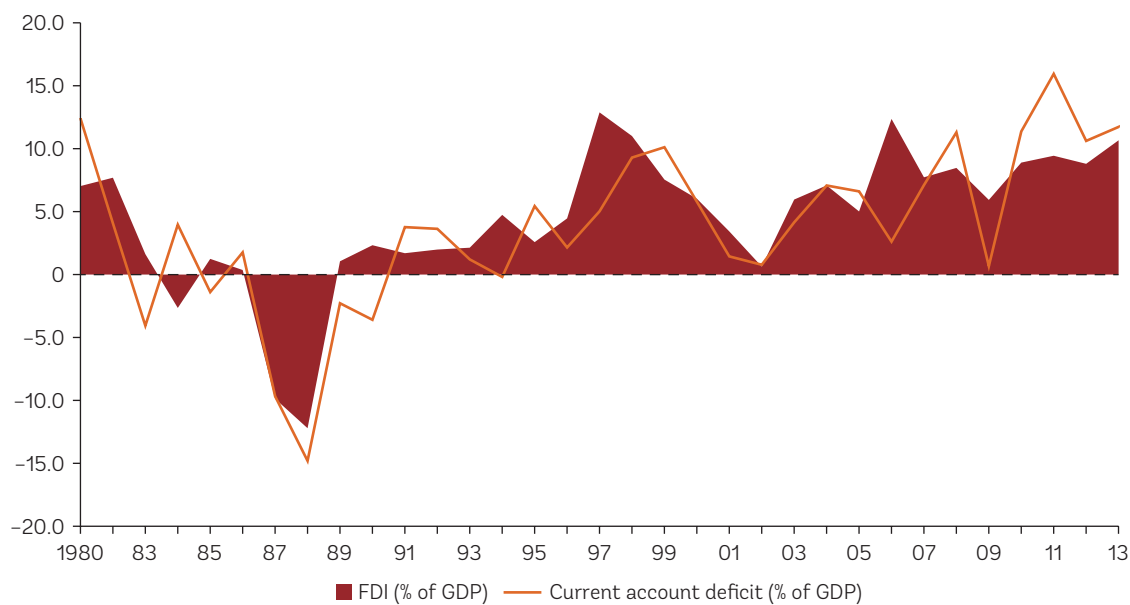
## FDI and Private Investment

**FDI HAS FINANCED A LARGE PART** of this infrastructure investment and remains the largest source of external finance of the current account deficit (figure 2.12). Panama has been successful in attracting FDI inflows from a group of diversified economies from all over the world. In general, FDI has gained in importance in Panama since the late 1990s, and in the last decade it reached the current high level in excess of 10 percent of GDP. These buoyant FDI inflows have financed on average 80 percent of the current account deficit in the last three years. The average of the deficit on the current account of the balance of payment increased from US\$942 million in 2003–2007 to US\$3,962 million in 2010–2012. The main reason for the expansion of the deficit is a large increase in investment from an average of US\$3,212 million in 2003–2007 to US\$8,571 million in 2010–2012, although this was partly compensated for by an increase in savings from US\$1,818 million in 2003–2007 to US\$4,307 million in 2010–2012.

As a consequence, Panama's growth rate is highly dependent on FDI (figure 2.13). A one percent increase in the FDI to GDP share has a short-term impact on real GDP growth equivalent to 0.63 percentage points and a long-term effect equal to 0.79 percentage points; in fact, 56 percent of the variance in the growth rate is explained by FDI.

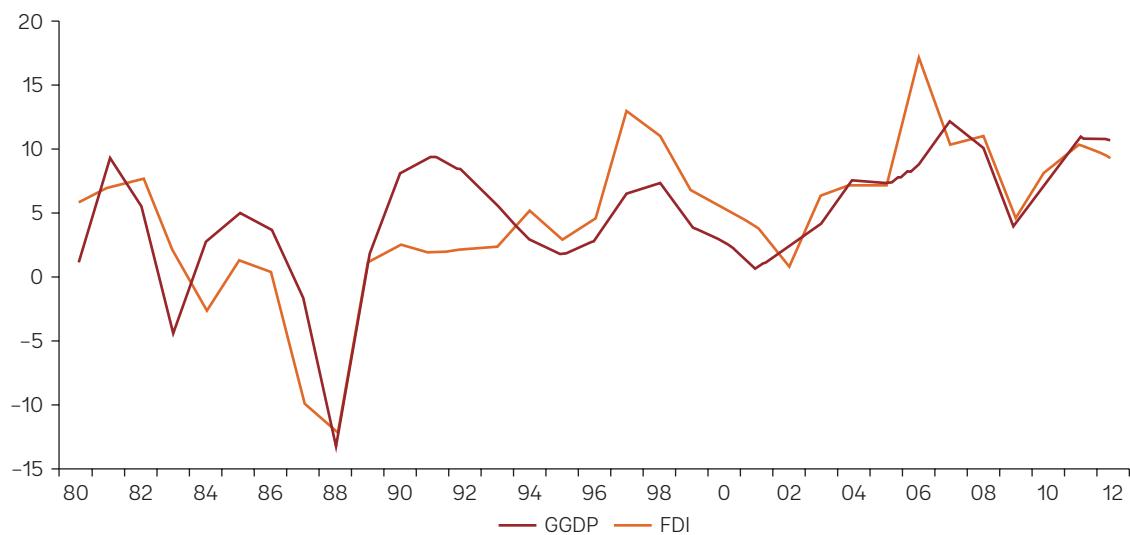
FDI and private investment more generally have increased due to a favorable and improving business environment. FDI inflows increased from nine to 11 percent of GDP between 2010 and 2013 and private investment from 13 to 16 percent. As mentioned before, Panama is a top

**FIGURE 2.12** Current Account Deficit and FDI



**Source:** Author's estimations based on the National Institute of Statistics of Panama (INEC) and United Nations Conference on Trade and Development (UNCTAD). <http://www.contraloria.gob.pa/inec> <http://unctad.org/>

**FIGURE 2.13** Real GDP Growth and FDI, 1980–2012 (Percent Change)



**Source:** Author's estimations based on the National Institute of Statistics of Panama (INEC) and the World Bank's World Development Indicators. <http://www.contraloria.gob.pa/inec>; <http://unctad.org/>; <http://data.worldbank.org/products/wdi>.

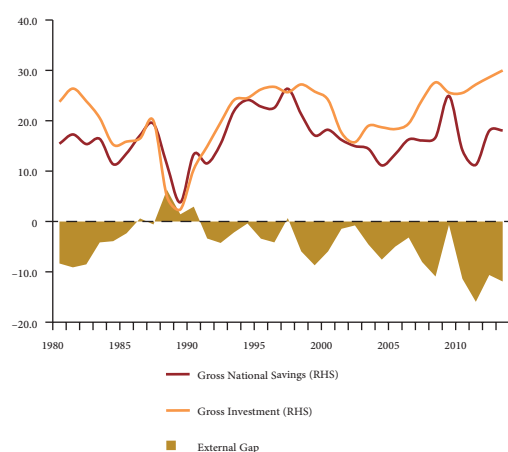
performer in Latin America in the Global Competitiveness Report and has managed to improve its ranking in the Doing Business Indicators, moving up to 55th (fifth in Latin America in 2014) from 79th overall in 2007.

Panama has been successful in attracting headquarters of foreign companies to Panama City. Under the SEM (*Sedes de empresas multinacionales*) program (also called Law 41) established in 2007, Panama created a new incentive regime (made up mainly of fiscal, labor, and migratory benefits) to attract foreign companies to Panama, similar to the regimes implemented in Singapore and Switzerland. These benefits are complemented by Panama's position as a logistics hub, its connectivity and well-developed infrastructure, its solid banking center, and its dollar-based economy. Maersk Cargo, one of the most important cargo shipping companies in the world, was the first company to take advantage of this law and established its

regional headquarters in the country in 2007. Maersk was followed by Procter & Gamble (2007); LG, Roche, Caterpillar, Western Union, and Halliburton (2008); Phillips, Cemex, Pan American Life, and Nestle (2009); Sab Miller, Otis, Ericsson, and Sanofi (2010); Unilever, Johnson & Johnson, Baxter, Merck, Van Oord, and Huawei (2011); Belcorp, General Electric, L'Oreal, Diageo, and 3M (2012); and Hino, Ace Limited, and Neptune (2013), among others. As of 2014, there are more than 100 companies under this regime, and they have in turn invested almost US\$600 million in Panama and currently employ about 5,000 workers.

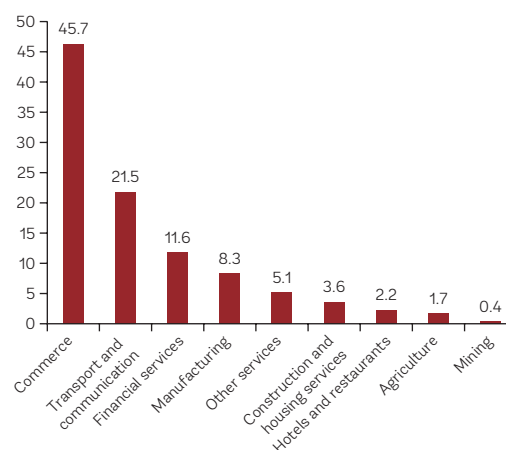
FDI has flowed into a large range of sectors, with an emphasis on services. To date, FDI inflows are concentrated in service sectors, such as commerce, transport, and communications, and the financial services (figure 2.15). The sectoral composition of

**FIGURE 2.14 Savings Versus Investment, 1980–2013**  
(Percent of GDP)



Source: World Development Indicators (database), World Bank, Washington, DC, <http://data.worldbank.org/products/wdi>.

**FIGURE 2.15 FDI by Economic Activity, 2010–2012** (Share of Total FDI)



Source: Authors' estimations based on the National Institute of Statistics of Panama (INEC) (accessed November 17, 2014), <http://www.contraloria.gob.pa/inec/>.



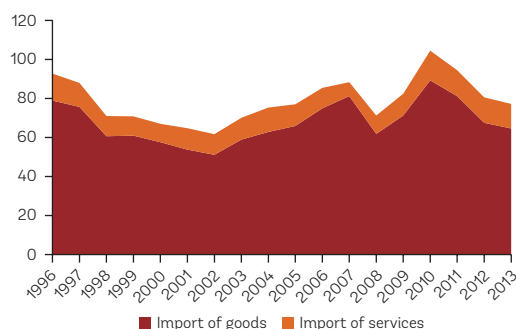
FDI in Panama more closely resembles some of the Caribbean countries, rather than other Latin American economies.

While the increase in investment led to an expansion of imports, mostly of investment goods, Panama's exports have grown more slowly and were concentrated in services. Public and private construction projects generated a need for investment goods, goods that were imported (figure 2.16). At the same time, Panama's exports are oriented toward services, unlike those of many other upper-middle-income countries. In the period from 2001 to 2013, exports of services were on average 62 percent of total exports (figure 2.17). These services included mainly transport and travel, representing more than 75 percent of the total export of services. Transport is directly linked to Canal services, and its share has remained steady in the recent past. Meanwhile, travel has increased its share as a consequence of the increasing number of tourist arrivals (which by 2012 exceeded 1.6 million), coming mainly from Colombia,

República Bolivariana de Venezuela, and the United States. Panama's main export goods are textiles, chemicals, and machinery and electric goods, and are sold primarily to Colombia, República Bolivariana de Venezuela, and the United States. Panama's export markets are diversified and not concentrated (in 2011, the Herfindahl index was 0.08).

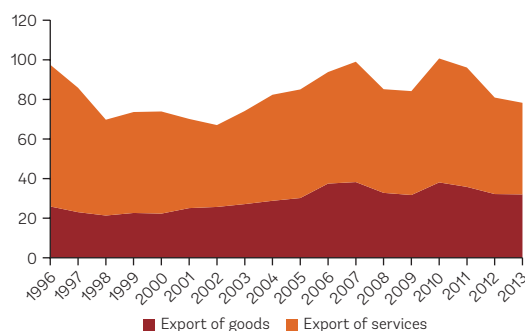
Moreover, the increase in investment in physical capital has been accompanied by an increase in the labor force and in total factor productivity, each explaining around a third of economic growth between 2001 and 2012 (figure 2.18). These results have to be interpreted with care because the methodology used biases the estimate of total factor productivity upward.<sup>11</sup> Despite this upward bias and subsequent uncertainty about the size of the contribution of total factor productivity, its increase is consistent with the structural change observed in Panama. Workers from the agricultural sector moved into urban sectors, and the share of better-paid services expanded, suggesting

**FIGURE 2.16 Imports of Goods and Services, 1996–2013 (Share of GDP)**



Source: Author's estimations based on World Economic Outlook (WEO) indicators, <https://www.imf.org/external/pubs/ft/weo/2014/01/weodata/index.aspx>.

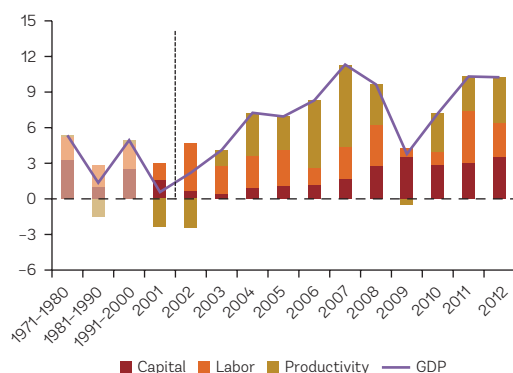
**FIGURE 2.17 Exports of Goods and Services, 1996–2013 (Share of GDP)**



Source: Author's estimations based on World Economic Outlook (WEO) indicators, <https://www.imf.org/external/pubs/ft/weo/2014/01/weodata/index.aspx>.



**FIGURE 2.18 Factors Contribution to GDP Growth, 1971–2012 (Percentage Points)**

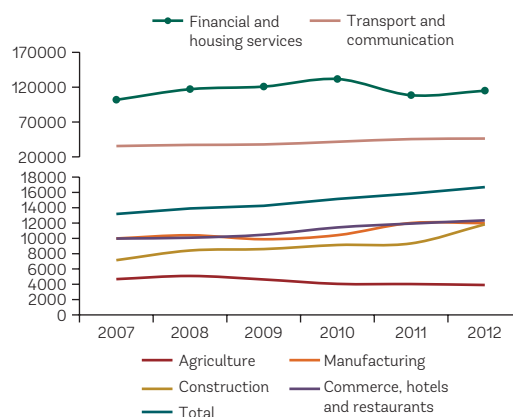


Source: Authors' estimations based on the National Institute of Statistics of Panama (INEC) (accessed November 17, 2014), <http://www.contraloria.gob.pa/inec/>.

that resources were allocated more efficiently among sectors.

Labor productivity has increased as well, displaying stark differences across sectors (figure 2.19). Overall, labor productivity increased by 27 percent between 2007 and 2012. The main services sectors—financial services and transport and communication, which are capital-intensive—are the more productive activities, with productivity well above the overall average. Meanwhile, productivity in construction, a labor-intensive sector whose contribution to growth and job creation has been important, is just under half of the total productivity of the economy. Differences in productivity are also linked to skill mismatches and the low level of skills of people employed in labor-intensive activities. For instance, only nine percent of the total workers in the construction sector have attained a postsecondary education, while in personal services this figure is 29 percent, and in financial and real estate activities this

**FIGURE 2.19 Labor Productivity by Economic Activity (Dollars of 1996)**



Source: Authors' estimations based on the National Institute of Statistics of Panama (INEC) (accessed November 17, 2014), <http://www.contraloria.gob.pa/inec/>.

number is almost five times the construction figure.<sup>12</sup>

Job creation has been concentrated in the Province of Panama. Almost two-thirds of the net job gain in Panama between 2000 and 2010 occurred in the Province of Panama, mainly in the commerce, construction, and services sectors. Chiriquí and Coclé followed with nine and eight percent of net job growth, respectively. It is worth noting that job creation for each of these sectors in the Province of Panama is larger than total job creation in any of the other provinces. Agriculture activity exhibits a loss of almost 9,000 jobs, the only sector with negative net job creation. Chiriquí and the *Comarca* Ngäbe Buglé showed the largest losses. It is very likely that the booming construction services sector has attracted workers from all over the country, mainly from rural areas, thus contributing to a reduction in the agricultural labor force.

## Panama's Stable Macroeconomic Environment

ANOTHER FACTOR IN PANAMA'S strong growth performance was the country's stable macroeconomic framework. Macroeconomic stability in Panama is based on full dollarization, fiscal policy that follows a fiscal rule, and a healthy banking sector. Dollarization dates back to a monetary convention signed with the United States following Panama's independence from Colombia in 1903 and coinciding with the beginning of the Panama Canal construction. Given the lack of independent monetary policy, fiscal policy plays a crucial role in stabilizing the economy. And Panama has adapted the social and fiscal responsibility law in 2002 that mandates fiscal deficit ceilings to help maintain fiscal prudence. According to the latest International Monetary Fund (IMF) Article IV Consultation ("Panama Article IV," June 2014), most local banks have a traditional business model with limited wholesale funding, and are well capitalized, profitable, and liquid. The system showed its resilience during the 2008 global financial crisis.

As a result, fiscal deficits have been kept in check despite the high public investment and a low tax revenue collection. As discussed above, public investment has been stepped up significantly in recent years, and Panama has been characterized by relatively low tax revenues. Despite the recent tax reform program implemented in 2009 and 2010, tax revenue reached 12.0 percent of GDP in 2013. It averaged 11.9 percent of GDP in the last three years, below the average of 13.4 percent in Central America and the world average of 17.3 percent. Revenues

from the Canal are a significant non-tax revenue source for the central government, representing over 10 percent of total government revenues. While dividends and fees from the Panama Canal and other non-tax revenues added another 4.8 percentage points of GDP in 2013 to the central government's current revenues, they are low by international standards. Nevertheless, fiscal deficits remained relatively low amounting to -2.1 percent in 2011, -1.5 in 2012, and -3 percent 2013 (overall fiscal balance excluding the Panama Canal Authority).

In recent years with particularly high growth rates, inflation rose slightly and has moderated with the reacceleration of growth rates leading to a gradual real exchange rate appreciation. Inflation peaked at around six percent in 2011 and has since come down to levels around three percent. As these rates have been higher than the inflation rate in the United States since the economy took off in 2003, the inflation differential has led to a gradual real appreciation with modest consequences for Panama's competitiveness.

Panama continued the downward trending of its debt-to-GDP ratio. The ratio of public debt to GDP (including external debt contracted for the Panama Canal expansion) fell from about 66 percent in 2005 to about 41 percent in 2013. To encourage the development of domestic capital market, the authorities have also increased local debt issuance. Its efforts have been awarded by all credit rating agencies. Panama achieved investment grade in the spring of 2010, and the rating has further improved in 2012. In April 2013, all three agencies confirmed Panama's BBB rating, one notch above investment grade, on par with Brazil, Mexico, and Peru.

## Outlook

**THERE ARE GOOD REASONS** to expect that growth will continue to be strong in Panama (six to seven percent) in the near future. The completion of major infrastructure projects (Canal expansion and the first Metro line) will lower public investment in the coming years; however, this will be offset by the planned construction of the second Metro line, and the additional traffic generated by the expanded Canal. Further, there is no suggestion of a downturn in private investment, according to leading indicators of residential and non-residential construction. Construction permits in the first half of 2014 reached 7,268 (equivalent to US\$1,155 million of new construction). This represents a similar number of construction permits to that in the first half of 2013 (7,254) but an increase in value of 20 percent.

The prospects of sustained high growth in the coming years are also supported by emerging opportunities in key sectors such as transport and logistics, mining, financial services, and tourism. The transport and logistics sector is already one of the most important and dynamic sectors in the economy and is expected to remain a main contributor to growth. The higher volume of cargo passing through the expanded Canal will by itself increase the demand for related transport and logistics services. In addition, major business opportunities in the next few years are related to private transport infrastructure and the development of value-added logistics services. For example, the private sector is lining up investments of around US\$600 million to expand existing port terminals and US\$300 million to construct a new container terminal in the Pacific. Special economic zones and several logistics parks for

warehousing and other services are also being developed. The recently started expansion of other transport and logistics subsectors—for example, air transport, roads, and railroads—is expected to continue. Among these, Tocumen airport is currently undergoing an expansion with a total investment of about US\$700 million, and the road network is being modernized.

Although the mining sector could turn into a major driver of growth in the near future, it is subject to uncertainties. The largest business opportunity is the Cobre Panama project owned by Minera Panama, which is 80 percent foreign owned by Canada-based First Quantum Minerals. This project alone could involve about US\$10 billion in investment over the first ten years. Over a projected 30-year life, it could also contribute US\$7 billion to the Panamanian economy in the form of royalties and taxes, create 10,000 new jobs and over 2,000 temporary jobs (from 3,780 in 2013, or 0.2 percent of the country's employees), and make US\$1.5 billion in wage payments and US\$800 million in social security payments. Uncertainties on the future outlook of the sector relate to the uncertain levels of global demand for minerals with effects on prices and the actual size of the underground deposits. Moreover, political, social, and environmental factors add to the complexities (this issue is further developed in Chapter 6).

Panama has the most dynamic banking sector in the Central American region, and the banking sector is expected to continue to support GDP growth. On the one hand, the projected growth in the logistics and transport sector is expected to raise demand for funds for new investment projects. On the other hand, high growth is raising Panamanians' income, increasing the

opportunities for bank intermediation. In addition, the diversification of the economy into new growth sectors will increase the relevance of alternatives to bank finance. In addition, business opportunities are emerging in the insurance and reinsurance markets. The insurance market's penetration is low in regional comparison, and Panama seeks to position itself as a reinsurance hub for Latin America.

Tourism is an important sector for Panama. The total contribution of the travel and tourism sector to GDP was about 14 percent of GDP in 2013 and, according to the World Travel and Tourism Council, is expected to increase by seven percent in 2014 and continue to grow by 6.3 percent annually over the next decade. This growth will be supported by transport improvements (for example, the expansion of Tocumen) as well as a series of grants and incentives to invest in tourism facilities (more than US\$100 million are in the

pipeline to build new hotels in the next three years in Panama City, Chiriquí, Los Santos, and Bocas del Toro).

## Filling Knowledge Gaps

**THERE ARE SEVERAL SECTORS** that are promising drivers of growth going forward. A thorough analysis of different growth scenarios would support present day decision-making. There are uncertainties about the sectoral composition of growth and the lack of knowledge about the channels through which poverty reduction and shared prosperity would be affected. A promising tool to fill this knowledge gap would be a computable general equilibrium model. Such a model would provide insights into the trade-offs between investing in different public services. It would also provide information on the channels through which different scenarios would affect growth, employment, and ultimately poverty reduction and shared prosperity.

## Notes

1. For a comprehensive description of the history and role of the Panama Canal for the Panamanian economy, see Barletta (2012).
2. World Bank 2015.
3. In 2000, the largest ship could carry around 3,500 containers, but in 2013 this had increased to 4,500 containers (the maximum capacity for Panamax ships) in terms of ships that actually pass through the Canal. The second line of locks will allow ships with a capacity of 12,500 containers (the standard for Post Panamax ships) to also pass through the Panama Canal.
4. The Canal Authority uses the *Sistema Universal de Arqueo de Buques del Canal de Panama* (CP/SUAB), which is based on a formula to estimate the "Panama Canal tons" (a Panama Canal ton equals 100 cubic feet of volume capacity).
5. Pagano et al. 2012.
6. Bussolo et al. 2011.
7. The index is computed by the United Nations Conference on Trade and Development (UNCTAD) based on five components of the maritime transport sector: number of ships, their container-carrying capacity, maximum vessel size, number of services, and number of companies that deploy container ships in a country's ports.
8. Schwab and Sala-i-Martin 2014.
9. In 2013, total internal credit to the private sector of Panama was US\$38 billion. In comparison, the Panama Stock Exchange traded a total volume of only US\$5 billion in 2013, less than 12 percent of GDP. Of this amount, US\$3.7 billion corresponded to the private sector, mostly corporate bonds, and the remainder was domestically issued public debt. Equity represented just US\$400 million.

10. The frequent use of turnkey contracts may underestimate the total investment.
11. The estimation of total factor productivity was done using a stock of capital that does not properly adjust for the recovery of the Canal Zone in 1999. The reason is that the capital stock is constructed using the perpetual inventory model and there is no adjustment for the handover of the Canal.
12. Personal Services include a large variety of occupations ranging from legal services and bookkeeping to housekeeping.

However, the impact of the transfer of the Canal to Panama on the GDP is properly accounted for (appearing under transport, storage, etc.). As a result of this inconsistency, the estimate of total factor productivity is biased upward.

## References

- Barletta, N. 2012. *Estrategia para el Desarrollo Nacional—Vision, Realizacion, Actualizacion*. Panama: Universidad Latina.
- Bussolo, M., R. de Hoyos, and D. Medvedev. 2011. “Distributional Effects of the Panama Canal Expansion.” Policy Research Working Paper 5848, World Bank, Washington, DC.
- Gordillo, D., A. Stokenberga, and J. Schwartz. 2010. “Understanding the Benefits of Regional Integration to Trade: The Application of a Gravity Model to the Case of Central America.” Policy Research Working Paper 5506, World Bank, Washington, DC.
- Marcelo, D., A. Stokenberga, and J. Schwartz. 2010. “Understanding the Benefits of Regional Integration to Trade: The Application of a Gravity Model to the Case of Central America.” Policy Research Working Paper 5506, World Bank, Washington, DC.
- Osborne, Theresa, Maria Claudia Pachon, and Gonzalo Enrique Araya. 2014. “What Drives the High Price of Road Freight Transport in Central America?” Policy Research Working Paper 6844, World Bank, Washington, DC. <http://documents.worldbank.org/curated/en/2014/04/19432378/drives-high-price-road-freight-transport-central-america>.
- Pagano, A., M. Light, R. Ungos, O. Sanchez, and E. Tapieros. 2012. “Impact of the Canal Expansion on the Panamanian Economy.” *Maritime Policy and Management* 39 (7): 705–722.
- Schwab, Klaus, and Xavier Sala-i-Martin. 2014. The Global Competitiveness Report 2014–2015. World Economic Forum.
- UNODC (United Nations Office of Drugs and Crime) 2013. “Statistics Online.” <https://stats.unodc.org>.
- World Bank. 2015. “The Rise of the South.” Flagship Report of the Chief Economist Office of the Latin America Region.



### 3. Prioritization Linked to Growth

**THE GOAL OF THE STRATEGIC COUNTRY DIAGNOSTIC (SCD)** is to identify the most critical factors constraining or driving growth. The diagnostic of growth in the previous chapter presents the first step in identifying priority areas and concrete opportunities for actions that Panama could take to increase the probability of continued growth and contribution to welfare. In this chapter the next steps in the prioritization process are presented along with their key results.

#### Benchmarking the Determinants of Growth

**TO IDENTIFY THE CONSTRAINTS** to Panama's continued growth, a variety of methods were used, including cross-country benchmarking, perceptions data from enterprise surveys, and microanalysis. The purpose of this exercise was to understand which determinants of growth are the most binding, and to identify not only the areas that are holding countries back but also those that could have the highest impact on growth.

#### Cross-country benchmarking

Cross-country regressions have been commonly used to identify the determinants of growth. Growth regressions are used to identify which of a large number of factors are statistically and economically significant determinants of growth rates. Cross-country growth regressions provide a useful input for the analysis. Of particular interest are studies that not only estimate the determinants of growth but also benchmark the performance

of individual countries in Latin America for each of the explanatory variables. In this regard, two sources are particularly useful. The first one is a study of economic growth in Latin America and the Caribbean (LAC) by Loayza et al. (2004). The second one is a forthcoming LAC regional study by Araujo et al., which updates and builds on the work by Loayza et al. (2004) and increases the sample in terms of country coverage and time period.

In a first step, these analyses provide an estimate of the impact of the explanatory variables on economic growth in a large panel of countries, taking into account potential sources of biases. The analyzed explanatory factors include transitional convergence (initial gross domestic product [GDP]); cyclical reversion (initial output gap); structural policies in areas such as education, financial depth, or public infrastructure; and stability policies, such as lack of price stability or cyclical volatility. In both cases, the impact of these factors on economic growth is analyzed relying on system General method of moments (GMM) estimation, an econometric estimation technique that takes into account unobserved country-specific effects and joint endogeneity of the explanatory variables (growth drivers) with the dependent variable (economic growth) in a dynamic model of panel data. Loayza et al. (2004) use an unbalanced panel of 78 countries with non-overlapping five-year observations that span the period from 1961 to 1999. Araujo et al. (forthcoming) expand the sample to 126 countries using five-year non-overlapping panel data from 1970 to 2010.



The estimation results can give a sense of the relative importance of the factors behind growth; however, important limitations of the approach have to be taken into account. First, as for any econometric estimation, the results may be biased due to omitted variables; second, instruments used for the GMM estimation may be mis-specified; and third, the proxies for the explanatory factors may not adequately capture the actual concept that is being analyzed. Given these limitations, the results from the econometric analysis are cross-checked with additional types of analysis and country-specific knowledge to form a plausible overall picture.

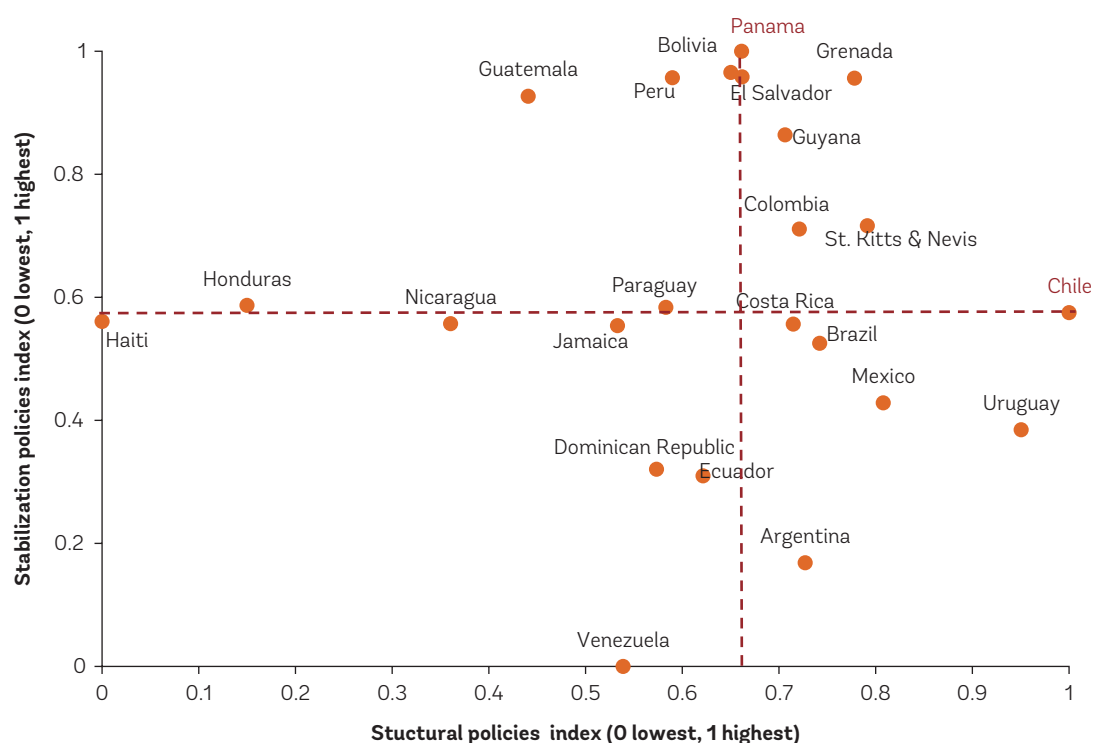
In a second step, a benchmark exercise is carried out to explore the growth that a country could have achieved if it were a top performer in terms of each of the explanatory variables. This type of counterfactual exercise highlights the areas with the largest impact on per capita income for a given country. This is the approach followed by both Loayza et al. (2004) and Araujo et al. (forthcoming), although with slightly different specifications. The scenarios studied in Loayza et al. (2004) correspond to a hypothetical situation in which the determinants of growth in each country would improve to be on par with the top 25 percent of the countries. In Araujo et al. (forthcoming), one of the scenarios considered corresponds to an improvement in the determinants of growth to the 90<sup>th</sup> percentile of LAC. This helps determine the possible effects that a stellar performance (relative to the rest of LAC) in specific policy-sensitive areas might have had for a country's level of GDP per capita. In addition, Araujo et al. (forthcoming) consider the impact on GDP per capita if the determinants of growth were to improve to the average levels observed in OECD countries.

The analysis by Loayza et al. (2004) suggests that infrastructure, education, and the government burden are significant constraints to growth in Panama. In contrast, stabilization policies, financial depth and external conditions appear insignificant.<sup>1</sup> The authors also find that increases in trade openness would positively impact growth in Panama. However, this finding likely overstates the possible impact of these policies in the case of Panama because the proxy used for trade openness in the regression analysis refers to trade in goods, while Panama is a country that exports services rather than goods. The fact that stabilization policies, financial depth, and external conditions as measured by terms of trade shocks are insignificant is consistent with Panama's having performed very well in these dimensions in the past.<sup>2</sup>

The analysis by Araujo et al. (forthcoming) suggests that infrastructure and education are significant constraints to growth in Panama. The results of the exercise indicate that Panama's GDP per capita would have been higher with more improvements in infrastructure and, to a lesser extent, education. Government consumption also appears as an area where Panama would benefit from improved policies. In particular, current expenditures appear large compared to the levels observed in the best-performing countries. The authors do not find a significant impact on growth had Panama improved its performance in public sector institutions. However, this finding likely understates the importance of improving institutions, since the variable used in the model to proxy institutions is a measure of the degree of political competition and political constraints rather than a measure of the effectiveness or efficiency of public institutions. As in the case of Loayza et al. (2004), there is no significant impact on



**FIGURE 3.1** Stabilization and Structural Policies Index



Source: Araujo et al. (forthcoming).

growth from an improvement in variables related to macroeconomic stabilization, reflecting the fact that Panama has already achieved a high degree of macroeconomic stability, as shown in figure 3.2.

### Perception data

Microeconomic survey data can provide further insights into the key constraints to growth. Data collected through the World Bank Enterprise Surveys (WBES) in particular provides a wealth of information about the experience of firms and what may prevent them from growing.<sup>3</sup> The Enterprise Surveys, two of which were conducted for Panama (2006 and 2010), provide useful data on the perceptions of firms about what they experience as key constraints to growth. Perception data from the WBES

**TABLE 3.1** Top Obstacles to Growth (As Reported by Firms)

	2006	2010
<b>Top five concerns of firms</b>	<ul style="list-style-type: none"> <li>• Electricity</li> <li>• Corruption</li> <li>• Crime</li> <li>• Tax rates</li> <li>• Macroeconomic instability</li> </ul>	<ul style="list-style-type: none"> <li>• Corruption</li> <li>• Practices of the informal sector</li> <li>• Inadequately educated workforce</li> <li>• Crime</li> <li>• Electricity</li> </ul>

Source: World Bank Enterprise Survey, <http://www.enterprise-surveys.org>.

suggest a number of areas that are to some extent aligned with the results of the cross-country benchmarking. This is particularly the case for the lack of an adequately educated workforce (education in the cross-country benchmarking) and electricity (infrastructure in the cross-country benchmarking).

## Firm-level micro data

But Enterprise Surveys provide much more than just perception data. A second type of data collected in these surveys is objective in nature. This data relates to both firm performance (for example, sales, employment, and productivity) and investment climate constraints (for example, how much a firm pays in bribes, as opposed to the perception of a given respondent on the extent of corruption). The availability of these objective measures helps nuance some of the findings. For example, in the case of corruption—one of the top two obstacles—the 2010 Enterprise Survey shows that the percentage of firms that pay bribes is relatively small. Thus, the Graft Index, a composite index of corruption that reflects the proportion of times a firm was asked or expected to pay a bribe when soliciting six different public services, permits, or licenses, is similar to the LAC average. Corruption perception has increased, however, and now Panama ranks 102nd of 175 countries, while in 2001 it ranked 52nd. Although this information does not solve the disconnect between a high perception of corruption and relatively average objective indicators of bribing, it suggests that other factors may well be affecting the perception of corruption.

The econometric analysis of firm-level data helps to shed light on the areas that would have most impact on growth. Because of the availability of objective measures of firm performance and of the seriousness of investment climate constraints, it is possible to estimate econometrically the relationship between investment climate characteristics and firm productivity. This is the exercise that Fajnzylber et al. (2010) undertake using a pooled sample of more than 10,000 firms from across Latin America. Similar caveats

apply as mentioned for the econometric analysis of the benchmarking part of the analysis.

Results from the microeconomic analysis suggest that regulatory compliance, security, and infrastructure quality are the areas that would have the most impact. Fajnzylber et al. (2010) estimate that improvements in regulatory compliance would have the most impact on the productivity of Panamanian firms. Regulatory compliance captures the effect of regulation and institutional quality and is proxied by three variables that are likely to be a reflection of excessive or arbitrarily enforcement of rules and regulations. Interestingly, infrastructure quality is proxied in this analysis by firms' losses causes by electricity outages.

## Synthesis

The different sources of evidence suggest a broadly consistent set of areas that include infrastructure, education, and public sector institutions. The cross-country benchmarking exercise concluded that improvements would mainly come from infrastructure and education. The analysis of microeconomic survey data highlighted regulatory compliance and security (both of which relate to the effectiveness of public sector institutions) and the quality of infrastructure (see table 3.2 for an overview).

## Priority Areas

### Infrastructure with a focus on energy

While the presented cross-country and microeconomic evidence points to binding constraints in the broad area of infrastructure, in recent years Panama has been ranked highly on infrastructure in international

**TABLE 3.2 Synthesis on Process to Benchmark Priority Areas for Growth**

	Cross-country benchmarking		Microsurvey data			
	Loayza et al. (2004)	Araujo et al. (forthcoming)	2006 Enterprise survey	2010 Enterprise Survey	Micro-econometric analysis	Emerging priority areas
<b>Areas that would have the most impact</b>	<b>Infrastructure Education</b> Government burden	<b>Infrastructure Education</b> Government burden	<b>Electricity</b> Corruption Crime Tax rates Macro-economic instability	Corruption Practices of the informal sector <b>Inadequately educated workforce</b> Crime <b>Electricity</b>	<i>Regulatory compliance</i> <i>Security</i> <b>Infrastructure quality</b>	Infrastructure (for example, electricity) Education Public sector institutions

comparisons. Panama is one of the most competitive countries in the region on infrastructure developments, such as roads, ports, and airports, according to the Global Competitiveness Ranking prepared by the World Economic Forum (Schwab and Sala-i-Martin 2014). Panama has positioned itself in the last decade as a foreign trade and logistics hub due to the development of infrastructure and services for the different modes of transport, with the Panama Canal at the center. Moreover, according to the World Economic Forum's Executive Opinion Survey (Schwab and Sala-i-Martin 2014), the quality of Panama's port infrastructure performance exceeds that of other countries in the LAC region and is similar to that of Dubai in the United Arab Emirates and Hong Kong SAR, China. In addition, overall infrastructure has improved in recent years boosted by the government's ambitious public investment program. Of particular importance are the Panama City-Colón highway, the Metro line, and upgrades to airports.

However, certain infrastructure components appear to have lagged behind, such as urban connectivity and, most strikingly, energy. The ability of various segments of society to access job and market opportunities in a cost-effective manner is critical for

broad-based economic growth. Metropolitan areas face congestion and connectivity challenges, particularly in the lower-income neighborhoods on the outskirts of Panama City (Choloma and Araithan). Panama's capacity to invest in and manage urban development has not kept pace with the real estate boom that has taken place over the last decade. Panama City would need to significantly improve its offering in terms of public spaces, walkability, and other amenities to compete with other global cities. In the livability ranking of 140 global cities, Panama's capital was listed among ten cities showing the steepest decline.<sup>4</sup> The full impact of the Metro on access and mobility requires a comprehensive and multimodal integration policy.

The energy sector in particular, has not been able to keep pace with the growing demand. The lack of the diversification of power generation has not matched the accelerated increase in demand in the last years.<sup>5</sup> Total installed capacity in Panama is approximately 2,500 MW and is comprised primarily of hydropower (both reservoir and run of river) and fossil fuel-based generation. However, given system-wide inefficiencies (including several power plant failures) and recent droughts, firm capacity has fallen to as low as

1,600 MW, while peak demand reached 1,500 MW, leaving Panama vulnerable to shortages. Generation capacity expansion is not the only cause of the current power sector crisis. The fact that Panama's transmission grid has also failed to keep up with growing demand has both limited the delivery of electricity from existing generation assets to distributors and prevented new power plant construction. With the system unable to meet rapidly growing demands, the government has been forced to put emergency response measures in place and the energy shortage experienced during dry seasons is putting tremendous pressure on electricity prices.

The underlying reason for the current situation is market distortion due to weak strategic planning, along with subsidies and inefficiencies in the institutional set up. The subsidies reduce incentives to invest in efficient power generation, transmission, and distribution. The government plays a major role in the transmission market, and the private sector owns the power generation and distribution assets. The potential expansion of two interconnection lines to Costa Rica and Colombia, the latter being the most difficult to execute, are expected to reduce pressures on the power market. The current subsidies scheme poses risks on fiscal sustainability and has heavily distorted the prices of the market, which in turn has increased the political cost of modifying the scheme. Electricity costs in Panama remain among the highest in Central America despite government subsidies (the price per KWh for industrial users was 16.95 cents/US\$, for commercial users 17.33, and for residential users 13.83).

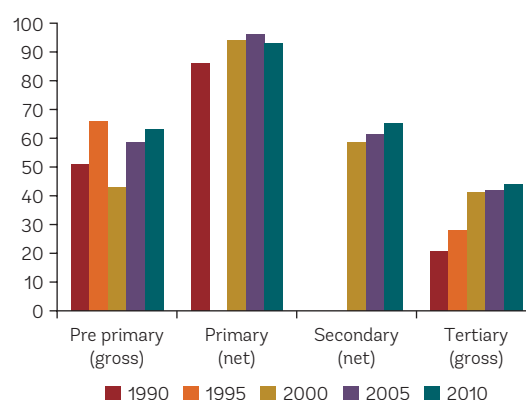
## Education and skills

Panama has made large gains in education in recent years, with primary enrollment almost

universal and increasing secondary enrollments. Preschool enrollment has also been expanded, boding well for future educational attainment. However, the sector faces a number of challenges that may undermine growth and productivity going forward. Retention in secondary education is low, and there are concerns about the quality and relevance of the education system for the present job market.

The demand for highly educated workers is strong and growing in Panama, yet the system faces significant dropout numbers at the secondary level. Between 2000 and 2010, the number of jobs in the country grew by close to 40 percent. The bulk of the jobs created, however, required completed secondary or tertiary education (see figure 1.14 in Chapter 1 above). Less than eight percent of all jobs were filled by those with primary schooling or less. Despite this strong demand, the enrollment rate in Panama for secondary schooling is low. After age 12, enrollments begin to fall, highlighting the difficulties the system has in retaining students. The fact that this

**FIGURE 3.2 Enrollment Rates by Level, 1990–2010**



Source: World Development Indicators (database), World Bank, Washington, DC, <http://data.worldbank.org/products/wdi>.  
Note: No data were available for Primary 1995 and Secondary 1990 and 1995.

pattern has changed very little between 2007 and 2012 is of further concern.

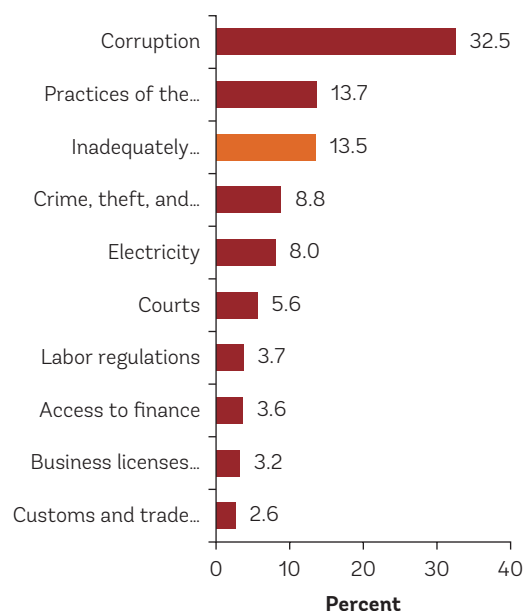
Firms highlight secondary and vocational education as a binding constraint for the business environment. A study of the top business environment constraints (World Bank 2011) found an inadequately educated labor force to be one of the top three constraints for developing a business in Panama (figure 3.3). The quality of graduates appears low: in 2009, on the international education tests (PISA), Panamanian students underperformed by international standards, having one of the lowest scores (figure 3.5). No further data exist as the country pulled out of the tests after 2009. The expected growth in demand for high-skill workers may not benefit Panama citizens if those with the required skills are not available. Although international migration

is low in Panama at present (four percent of the population immigrated in the last ten years), the education levels of many of these migrants are above those of the national population (figure 3.4).

Dropout rates remain high despite the high returns to education. Panama exhibits large positive economic returns to education, higher than Costa Rica, El Salvador, and Honduras.<sup>6</sup> On the one hand, the opportunity costs of schooling have probably risen: the massive job creation in recent years has provided income opportunities for students. On the other hand, there is a lack of physical infrastructure at the secondary level: for many in remote rural areas, access to schooling is still a binding constraint.

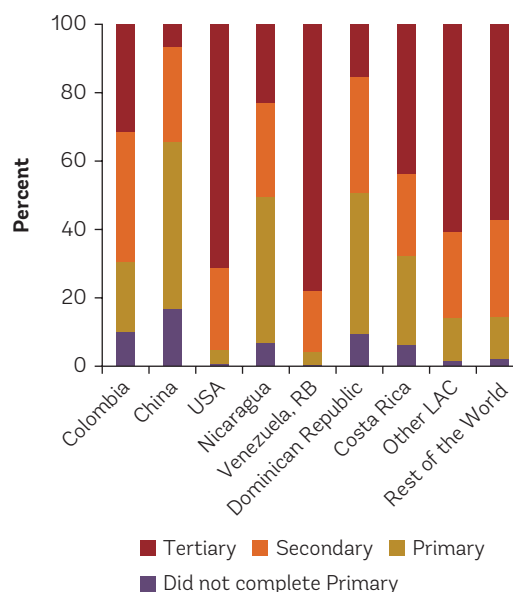
Educational quality is a key factor that can affect retention. Panama spends slightly more

**FIGURE 3.3 Top Ten Business Environment Complaints**



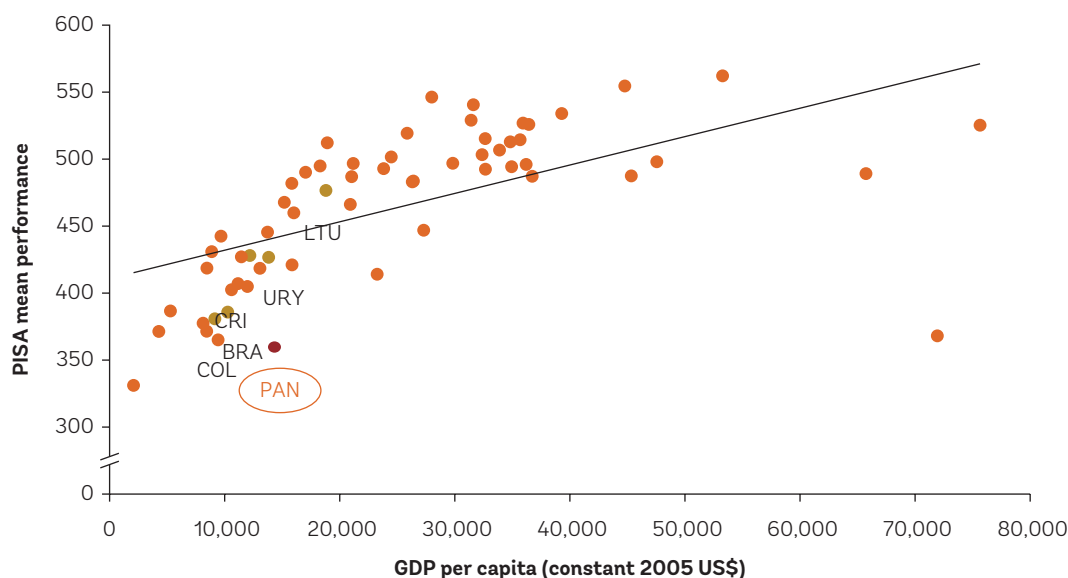
Source: World Bank Enterprise Surveys, <http://www.enterprise-surveys.org>; People 1st, "Skills 2020: World-Class Skills for Panama's Hotel and Tourism Sector."

**FIGURE 3.4 Educational Attainment Among Immigrants in the Labor Force, 2010 (By Country of Birth)**



Source: Authors' calculations based on Population Census (INEC 2010).

**FIGURE 3.5** PISA 2009 Mathematics Mean Score (By Country for 15-Year-Old Students and GDP Per Capita)



Source: Authors' estimations based on the National Institute of Statistics of Panama (INEC), <http://www.contraloria.gob.pa/inec/>.

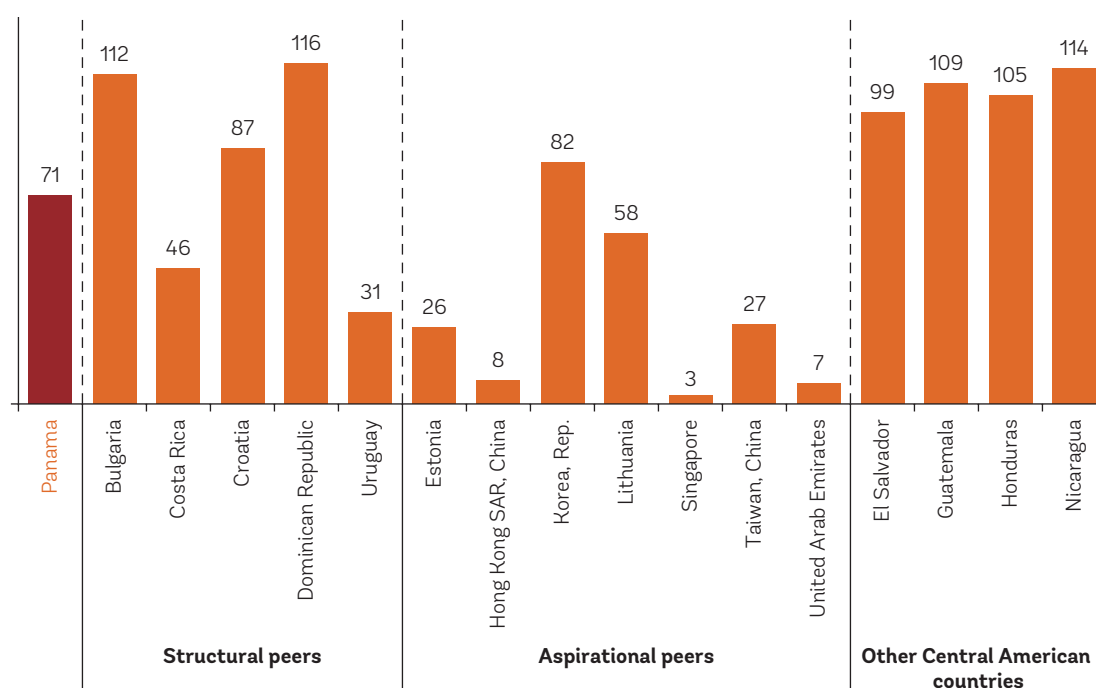
than the average for Latin America (4.2 percent of GDP compared to four percent); however, based on the PISA math and education scores, Panama's efficiency of public spending on education is low.<sup>7</sup> Panama's score on the Public Sector Efficiency Index is only 0.88 compared to the LAC score of 1.0.<sup>8</sup> Moreover, Bruns and Lucque (2015) provide evidence of a drop in the quality of Panama's education between 2000 and 2010 that in their measures represents a drop of more than 20 percent in the efficiency of the sector. Teachers in Panama work significantly fewer hours than other employees in the economy, with male teachers having the largest gap in hours.<sup>9</sup> Teachers also earn less than their counterparts in other countries, due in part to an excess supply of teachers. There is also some evidence of excess production of teacher graduates with generally low academic quality. The most recent data for Panama suggest that only 59 percent

of graduates from teacher training schools are actually working as teachers. On a more positive note, Panama has benefited from smaller class size: the pupil-teacher ratio is less than 20 to 1, lower than in some high-performing Organisation for Economic Co-operation and Development (OECD) countries.

### Public sector institutions (including transparency, efficiency, and regulatory framework)

There is a mismatch between the sophistication of Panama's economy and the effectiveness and efficiency of its public sector institutions. In terms of institutional quality, Panama significantly lags behind its aspirational peers (figure 3.6) according to the World Economic Forum's Global Competitiveness Ranking. Panama ranks 71st out of 144 countries, while

**FIGURE 3.6** Panama's Institutional Quality in International Comparison



Source: Schwab and Sala-i-Martin (2014).

Hong Kong SAR, China and Singapore rank 8th and 3rd respectively.<sup>10</sup> The challenges Panama faces regarding its public sector institutions can be summarized as relating to transparency, the regulatory framework, and efficiency of public sector management.

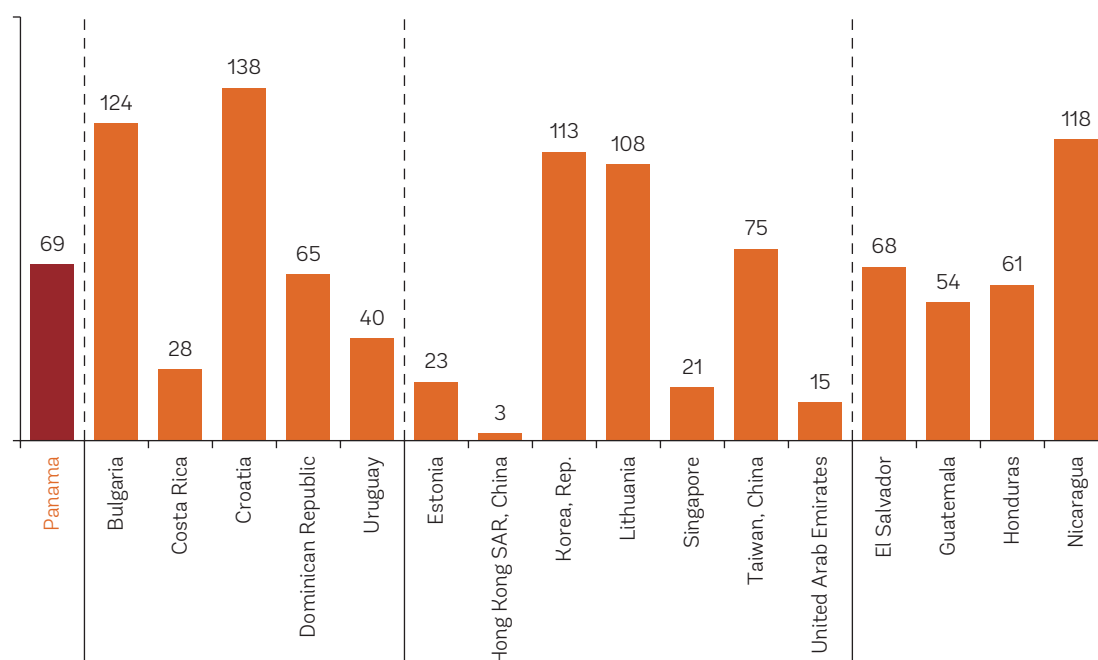
The challenge of the transparency of Panama's public institutions is widely recognized. Government practices are perceived as relatively non-transparent and the monitoring and evaluation function is weak. The issues raised by the Global Forum in the OECD highlight some of the weaknesses. The Corruption Perception Index prepared by Transparency International shows that Panamanians perceive their government as more corrupt in recent years than in earlier periods. Moreover, public trust in politicians is low in Panama; in 2010, just over half of the

population expressed positive levels of trust in the national government and only a third for the National Assembly (LAPOP 2010).

Panama has demonstrated high levels of efficiency in the management of the Canal, efficiency that is not been replicated across the full public sector. An overarching problem is the inability to translate a strategic vision into implementable policy. Despite sundry multiyear sectorial strategy documents, the lack of linkage between the various plans and of strategic planning, including at the municipal levels, reduces government efficiency and erodes the foundation for efficient fiscal management.<sup>11</sup> In addition, budget credibility is one of the key public financial management weaknesses in Panama, also affecting government transparency. The lack of budget predictability and the difficulty of



**FIGURE 3.7** Panama's Efficiency of Legal Framework in International Comparison



Source: Schwab and Sala-i-Martin (2014).

realistically defining activities to be executed during the following year promote improvisation and reduce budget relevance and strategic value because the budget is no longer a strategic tool of public administration and planning, but rather becomes a tool for registering commitments and transfers.

Panama's regulatory framework shows important weaknesses that are apparent in most sectors of the economy. According to the World Economic Forum's Global Competitiveness Ranking, Panama ranks 69th in efficiency of legal framework in challenging regulations out of 144 countries, while Hong Kong SAR, China and Singapore rank 3rd and 21st respectively. Box 3.1 illustrates some of these weaknesses in the case of energy.

## Identified Opportunities

A SERIES OF SPECIFIC OPPORTUNITIES has been identified within each of the priority areas described above, namely energy, education and skills, and public sector institutions. Through the application of a series of filter and criteria along with consultation with stakeholders in Panama, a set of opportunities for action were identified.<sup>12</sup> These opportunities are briefly described here while a detailed description of each opportunity can be found in Appendix C. The explicit links between these opportunities and their effect on specific sectors in the economy that could turn into future drivers of growth are outlined as well.



Identified opportunities in the context of education and skills include both concrete policy measures and analytical work to understand the underlying causes of the challenges. The first opportunity consists of rendering secondary education in Panama more relevant for the labor market. This could be achieved through the introduction of a vocational training program with participation of the private sector and public sector coordination. This could also be complemented by a revision of secondary and tertiary education curricula to integrate private sector needs into the training of young Panamanians.

A highly relevant action in this regard appears to be the comprehensive introduction of English into curricula. A second opportunity consists of strengthening the monitoring and evaluation of education with the goal of improving the quality. Low-hanging fruit in this context are participating in the 2015 PISA testing and analyzing the causes of dropout from secondary education both by exploiting existing administrative data and by holding focus group sessions. Finally, a third opportunity consists of addressing high dropout rates by expanding the *Beca Universal* program through targeted offerings for vulnerable

### **BOX 3.1** Institutional Challenges of the Energy Sector

The governance system in the energy sector has been criticized for its lack of proper planning and weak or limited staffing and institutional capacity. Slow and rarely transparent decision making is a key factor in the slow pace of investments in energy infrastructure expansion and strengthening in recent years. Further, existing policies, legislation, and regulations—the rules of the game—need to be revisited to meet the needs of a modern, expanding, and diversifying power system that is developing in Panama.

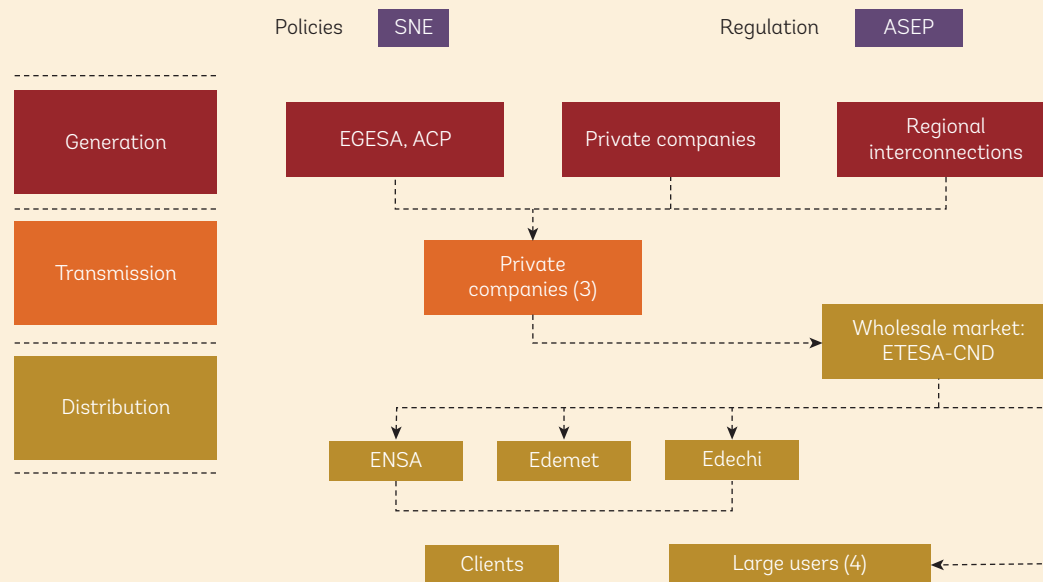
The sector is also characterized by a multiplicity of agencies that are not coordinated. Four primary institutions constitute the government's role in the energy sector. (First, the National Energy Secretariat is the lead national agency that coordinates the actions in the energy and power sector across ministries and agencies. Second, the National Electricity Transmission Company (ETESA) is the only participant in the transmission sector. It was created by Law 6 and is the remnant of the Institute of Water and Electrification (IRHE) responsible for managing the state monopoly on the energy sector since 1997. It has the responsibility for expanding and operating the transmission system, as well as operation of the energy market. Third, the National Dispatch Center (CND) coordinates the participants in the distribution market. And, fourth, the National Public Service Authority (ASEP), besides ensuring compliance with regulation in the electricity sector, is responsible for regulation related to telecommunications, water delivery, and sewage. In the distribution sector, three private companies control power distribution: ENSA, Edemet, and Edechi. The Panamanian state owns about 40 percent of the shares of ENSA, while Edemet and Edechi belong to the Spanish group Unión-Fenosa.

*box continues next page*

### BOX 3.1 continued

The graphic below illustrates the relationship between the relevant agencies.

**FIGURE B3.1 Institutional Challenges of the Energy Sector**



Source: Inter-American Development Bank (IDB) 2013.

students, including culturally appropriate offerings in indigenous areas.

For energy, opportunities present themselves in the context of short-term demand management; the institutional framework; and power generation, transmission, and distribution. The first opportunity consists of the management of national energy demand. This opportunity could be realized in a short time frame. In other countries such as Brazil, these types of short-term demand response measures led to a 20 percent reduction in demand. The impact in Panama is expected to amount to a 10 percent reduction. The second opportunity consists of the modernization of the institutional framework of the

sector, including improving the coordination among institutions that are key players in the sector. The third set of opportunities relates to the physical infrastructure of energy generation, transmission, and distribution: by adding renewable energy or natural gas power generation, Panama may mitigate the risks of power shortages through (i) taking advantage of their costs being lower than the existing oil-based generation; (ii) reducing vulnerability to droughts associated with large hydropower plants; and (iii) reducing dependence on imported fossil fuels. By expanding the number of transmission lines, electricity flows from existing and planned power projects will not be limited by the

capacity for throughput as is currently the case given the lack of adequate power transmission.

Opportunities on public institutions relate to transparency and efficiency of public institutions as well as the adequacy of the regulatory framework. Two main opportunities emerged in the context of transparency. The first is related to meeting the standards on tax and financial information sharing of the OECD; the second is related to improving public procurement practices, in particular for large infrastructure projects. In the context of public institution efficiency, three further opportunities present themselves. First, a move to performance-based budgeting, accompanied by better coordination among government plans and entities, could have major benefits. Second, developing institutional capacity at the municipal level is needed to support the move toward decentralization. Improving fiscal management would be the third opportunity under public institution efficiency. This is particularly relevant in a country like Panama that has fully outsourced its monetary policy to the United States Federal Reserve and that has little room for fiscal maneuvering because of the deficit ceiling mandated under the Fiscal Responsibility Law. These strong constraints on fiscal policy mean that the only way in which Panama can create fiscal space is through efficiency gains. Finally, the third opportunity is to improve the adequacy of the regulatory framework, including the formulation and adaption of a modern mining regulatory framework, the enforcement of social and environmental safeguards regulations, and an update of financial sector regulations. These actions are particularly relevant for the financial and mining

sectors, which are promising sectors for the economy going forward.

The impact of progress on the opportunities identified will vary by sector. Some specific examples of how these policy opportunities will affect promising sectors of Panama's economy are mentioned here. These examples draw on the International Financial Corporation's private sector expertise in Panama.

Improvements in public sector institutions will help both the mining and financial sectors of Panama to maintain or increase their roles as important drivers of growth. To ensure that the country can take advantage of the existing mining potential, the formulation and adaption of a modern mining regulatory framework is both an opportunity and high priority. Overall, the existing mining legal and regulatory framework has not been updated to incorporate new international standards on effective oversight of mining activity by the relevant government and municipal institutions, subnational royalty sharing schemes, and environmental protection and social responsibility. Even though the financial sector is well regulated, transparency could be enhanced by achieving OECD Global Forum standards that promote transparency and information exchanges, thus reducing operational costs and ameliorating systemic risk. Transparency and appropriate regulatory frameworks are also critical for Panama to launch itself as a reinsurance hub for Latin America, and improvements in the institutional framework are required to develop the domestic capital market and expand the role of the Panamanian Stock Exchange.

For tourism, and the transport and logistics sector, focusing on the priority areas of education and energy will remove existing barriers to expansion. The large number of

planned activities in the transport and logistics sector will generate new demand for a well-trained labor force that is English-proficient and capable of working in a multicultural environment. Tourism is also expected to continue to be a significant driver of growth in Panama; investor confidence remains high given the country's strategic location and stability. The opportunities identified above of updating the curriculum of the International Baccalaureate and introducing bilingual education will be critical to meeting the new labor demand of both sectors and improving productivity. The energy sector will need to respond to new demands as well, not simply by generating more power but by providing transmission mechanisms to areas presently under-served. The present saturation of the hotel market in the capital, for example, means that new investments will more likely take place in remote areas and provinces outside of Panama. The opportunities identified

to improve transmission as well as generation of electricity will prevent energy from becoming a barrier to these sectors.

## Filling Knowledge Gaps

**THERE IS LITTLE DATA AVAILABLE** on coverage and quality of public service delivery across the country. The role of municipalities in regulating and providing public services is fundamental in reaching out to the under-served. Understanding the correlation between weak local governments and access to and quality of public services in the poorer geographic regions is critical to promoting better service delivery. The same is true for linking spatial data on public social services to outcomes. A contribution to filling this knowledge gap could consist of compiling detailed information (databases) on the quality and resources of regions, municipalities, and metropolitan areas in Panama.

## Notes

1. As is common in the literature, both Loayza et al. (2004) and Araujo et al. (forthcoming) classify the determinants of growth in different categories, including structural factors—such as human capital or infrastructure—and those determinants of growth that are related to stabilization policies—such as inflation.
2. Similarly, Swiston and Barrot (2011) find limited opportunities to boost growth given Panama's already relatively high performance in the explanatory variables used in their model.
3. World Bank Enterprise Surveys, <http://www.enterprisesurveys.org>.
4. EIU 2013.
5. Espinosa et al. 2013.
6. World Bank (forthcoming).
7. Afonso, Romero, and Monsalve 2013.
8. The index takes into account the achievements in education, related to public spending on the education sector.
9. Bruns and Luque (2015).
10. The Institutions ranking is one of the 12 components of the Global Competitiveness Index prepared by the World Economic Forum and updated every year. The ranking is the average of 21 subcomponents such as property rights, intellectual property protection, diversion of public funds, public trust in politicians, irregular payments and bribes, judicial independence, favoritism in decisions of government officials, wastefulness of government spending, and burden of government regulation, among others. These subcomponents are built using the data from the Executive Opinion Survey applied in 144 countries.
11. IDB (Inter-American Development Bank) and World Bank. 2012.

## References

- Afonso, António, Alma Romero, and Emma Monsalve. 2013. "Public Sector Efficiency: Evidence for Latin America." Discussion Paper IDB-DP-279, Inter-American Development Bank, Washington, DC.
- Araujo, J., M. Clavijo, E. Vostroknutova, and K. Wacker, eds. Forthcoming. *Understanding the Income and Efficiency Gap in Latin America and the Caribbean*. Directions in Development Series. Washington, DC: World Bank.
- Bruns, B., and J. Luque. 2015. *Great Teachers: How to Raise Student Learning in Latin America and the Caribbean*. Washington, DC: World Bank.
- EIU (Economist Intelligence Unit Limited). 2013. "A Summary of the Liveability Ranking and Overview: August 2013." EIU.
- Espinosa, R., L. Balza, C. Hinestrosa, C. Sucre, and S. Guerra. 2013. *Dossier Energético Panama*. Inter-American Development Bank.
- Fajnzylber P., L. Guasch, and H. Lopez, 2010. "Does the Investment Climate Matter? Microeconomic Foundations of Growth in Latin America." Washington, DC: World Bank and Palgrave Macmillan.
- IDB (Inter-American Development Bank). 2013. *Energy Dossier: Panama*. Washington, DC: IDB.
- IDB (Inter-American Development Bank) and World Bank. 2012. *Public Expenditure and Financial Accountability (PEFA)*. Washington, DC: IDB. Washington, DC: World Bank.
- LAPOP (Latin America Public Opinion Project). 2004, 2006, 2008, 2010, and 2012. Constructed Panel downloaded from <http://www.vanderbilt.edu/lapop>, November 2013.
- Loayza, N., P. Fajnzylber, and C. Calderon. 2004. "Economic Growth in Latin America and the Caribbean: Stylized Facts, Explanations, and Forecasts." Central Bank of Chile Working Paper 265.
- Schwab, K., and X. Sala-i-Martin. 2014. *The Global Competitiveness Report 2014–2015*. World Economic Forum.
- Swiston, A., and L. Barrot. 2011. "The Role of Structural Reforms in Raising Economic Growth in Central America." IMF Working Paper 11/248.
- World Bank. 2011. *Panama Poverty Assessment: Translating Growth into Opportunities and Poverty Reduction*. Washington, DC: World Bank.



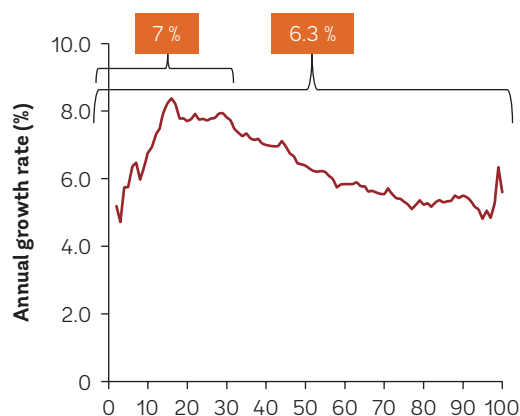
## 4. Inclusiveness of Panama's Growth

**PANAMA'S GROWTH HAS BEEN INCLUSIVE ALONG MANY DIMENSIONS**, but the geographic and ethnic distribution of growth has not been homogenous. Growth has been strong, averaging 7.2 percent between 2001 and 2013, and above eight percent for five of the past seven years despite the crises of 2008–09. The bottom forty percent of the population has benefited from growth more than has the average Panamanian. Average income growth among the bottom forty percent of the population was seven percent compared to 6.3 percent overall (figure 4.1), with the resulting fall in overall poverty from 40 to 26 percent of the population and extreme poverty from 16 to 11 percent (see Chapter 1). Yet the geographic distribution of growth has not been homogenous: the

poorest areas, the indigenous territories or *comarcas*, continue to lag behind.

The change in the view of night lights in Panama between 1997 and 2010 underscores the overall growth performance along with the remaining geographic inequality, inequality linked to ethnicity (figure 4.2). On the one hand, economic growth around the Canal is clearly visible as is the expansion of growth into the interior in the provinces of Coclé, Los Santos, and Chiriquí through the spread of night lights. On the other hand, the continued darkness over substantial sections of the country reflects regions that have either benefited only slightly from economic growth, or were so far behind the others that recent growth has not been enough for them to catch up, or regions where there are dispersed populations to whom it is hard to provide services (including but not limited to electricity). In particular, the indigenous territories are in areas of the map that have remained without access to electricity.

**FIGURE 4.1 Annualized Growth Incidence Curve, 2007–2012 (Constant Prices of 2002)**



Source: Authors' calculations based on the Encuesta de Mercado Laboral (EML) (INEC 2007–2012).  
Note: Numbers in blue boxes represent the average annual growth rate of the full population and the bottom 40 percent.

### Positive Trends

**RECENT ECONOMIC GROWTH** has led to a substantial increase in the size of the middle class. In 2007, the middle class spanned the 69th to 84th centiles of the population; in 2012 it had expanded to encompass the 57th to 96th centiles of the distribution (figure 4.3). The share of income going to the middle class rose from 52.4 to 55.8 percent during the period (using the definition of middle class as having per capita income of US\$10–50 per day). The top earners doubled their population share, from one to two percent and saw



**FIGURE 4.2** Night Lights in Panama, 1997 and 2010

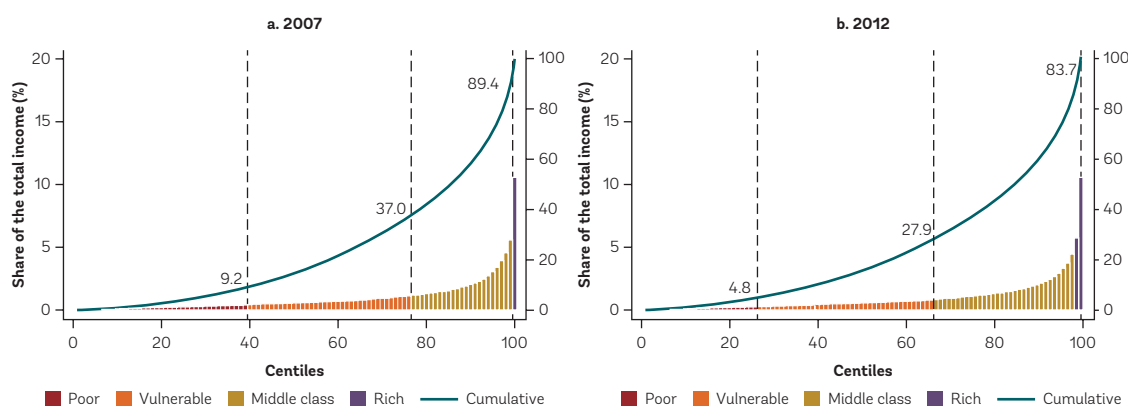


**Source:** Night Lights Data (database), World Bank, Washington, DC (accessed November 2014), <https://geowb.worldbank.org>.

their share of total income rise from 10 to 16 percent. The ratio of the share of income of the top 10 percent of the population over the remainder of the population has remained at 2.2 percent from 2007 to 2012.

Changes in inequality at the national level, and within urban areas, have been minimal: a one percentage point change over five years (figure 4.4). In contrast, rural inequality has fallen substantially—four percentage points

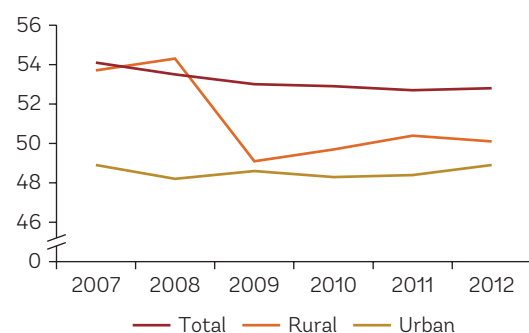
**FIGURE 4.3 The Rise of the Middle Class**



Source: Authors' calculations based on EML (INEC 2007 and 2012).

Note: Poor is defined as having income below the national poverty line, middle class as having incomes of US\$10–50 a day per capita, and rich as having incomes of more than US\$50 per day. In this analysis, the vulnerable are those whose incomes are above the poverty line but below the middle class and thus face a danger of falling back into poverty.

**FIGURE 4.4 Gini Coefficient by Area, 2007–2012 (Index)**



Source: Authors' calculations based on EML (INEC 2007–2012).

in five years—although it is still slightly higher than in urban areas. The decline in rural inequality appears to be driven by increased public spending in rural areas that reached the poorest groups along with internal migration: self-selection in migrants lowers the inequalities in their communities of origin (see below for a discussion of internal migration).

There has also been substantial progress on nonmonetary indicators of welfare and access to services. Life expectancy has risen

**TABLE 4.1 Health Indicators**

	1990	2000	2010
Life expectancy (years)	73	75	77
Child (under 5) mortality	32	24	19
Maternal mortality (per 100,000 births)	100	110	92
Births attended by trained health personnel (%)	86	93	89
Malnutrition (weight for age, 0–5 year olds) (%)	n.a.	5.1	3.9

Source: World Development Indicators (database), World Bank, Washington, DC, <http://data.worldbank.org/products/wdi>. World Bank (forthcoming).

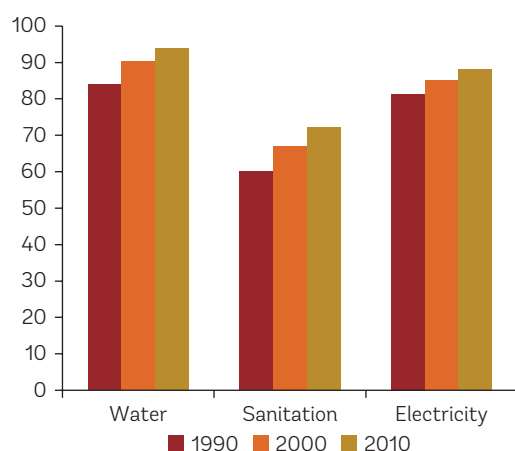
Note: n.a. = not available.

steadily, and the country has met the Millennium Development Goal (MDG) in terms of child mortality (table 4.1). Although not expected to reach the MDG goal on maternal mortality, Panama has nonetheless seen some progress over the last ten years on reducing maternal mortality in the country. Malnutrition rates have also declined. Progress has been made in measures of welfare related to service access as well. Enrollment in education has increased at all levels since 1990, with the biggest gains seen at the

preschool and tertiary levels. The average years of schooling of the population have increased by 1.6 years since 1990 and 0.1 years since 2005. Access to running water in a dwelling increased from 84 percent in 2000 to 94 percent in 2010; electricity access rose seven

percentage points (a smaller number given the higher starting point); and access to sanitation, while still limited, rose from 60 to 72 percent between 2005 and 2010 (figure 4.5).

**FIGURE 4.5** Percent of the Population with Access to Basic Services, 1990–2012

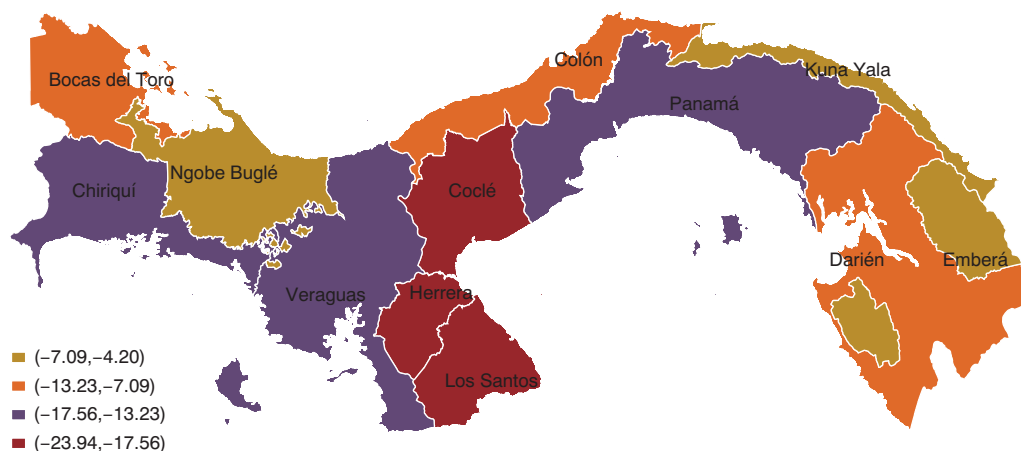


Source: World Development Indicators (database), World Bank, Washington, DC, <http://data.worldbank.org/products/wdi>.

## Limitations of Growth's Effects

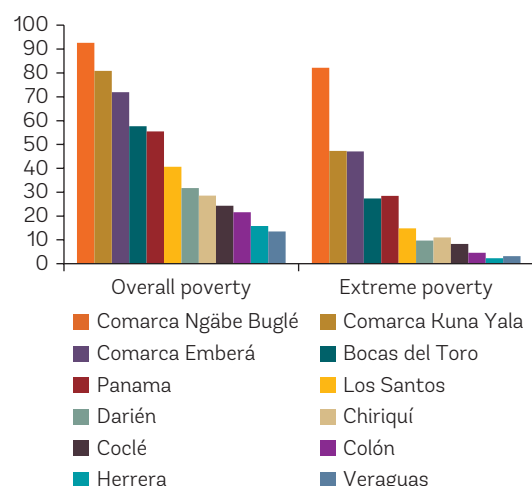
**DESPITE STRONG AND FAIRLY INCLUSIVE GROWTH**, differing rates of poverty reduction have led to the poor becoming ever more concentrated in specific geographic locations. Poverty rates vary tremendously across the country. In 2012, poverty in the poorest province or *comarca* was 93 percent, with 82 percent of the population living in extreme poverty (Ngäbe Buglé *comarca*) (figure 4.7). In contrast, the province of Veraguas had only 15 percent poverty and only 2 percent of the population in Herrera lived in extreme poverty. These differences are both a result of very different starting points in terms of poverty rates and quite different rates of change (figure 4.6). The poorest areas (the *comarcas*)

**FIGURE 4.6** Changes in Overall Poverty Rates by Geographic Area, 2007–2012



Source: Encuesta de Mercado Laboral (INEC 2007 and 2012); Shape file from gadm.org.

**FIGURE 4.7 Poverty Rates by Province and Comarca, 2012 (Percent)**

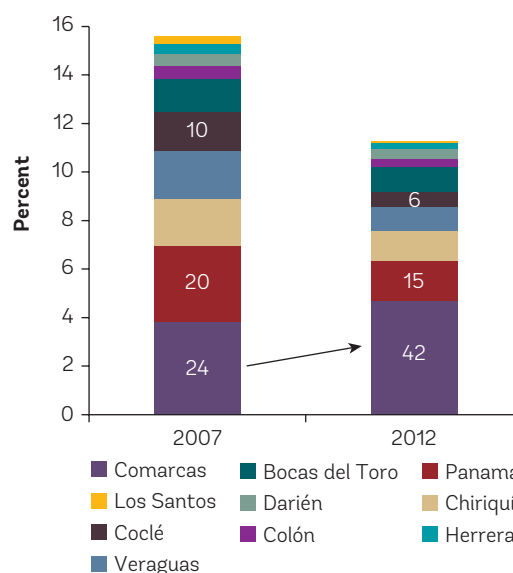


Source: *Encuesta de Mercado Laboral* (INEC 2007 and 2012).  
 Note: Panama Province has been divided into two separate provinces since 2013. However, the data sources are representative only for the full Panama province level.

saw poverty fall 4.2 percent between 2007 and 2012. In contrast, Coclé, which began with a substantially lower poverty rate of 56 percent, saw the greatest fall in poverty (24 percent). The net effect of these differential changes in poverty is that, while overall the number of extremely poor people in the country fell, the *comarcas* became home to an ever increasing share of them: in 2007, 24 percent of all extremely poor people in Panama lived in the *comarcas*, a figure which rose to 42 percent by 2012 (figure 4.8).

Internal migration may also play a role in the concentration of poverty both because it is large and because there is evidence of self-selection among migrants. There has been substantial internal migration in recent years: in 2010, one-fifth of individuals over age 15 lived in a district that was not the same as where they had lived ten years previously. The rates vary little by ethnicity: Afro-descendants are slightly less prone to migrate (20 percent

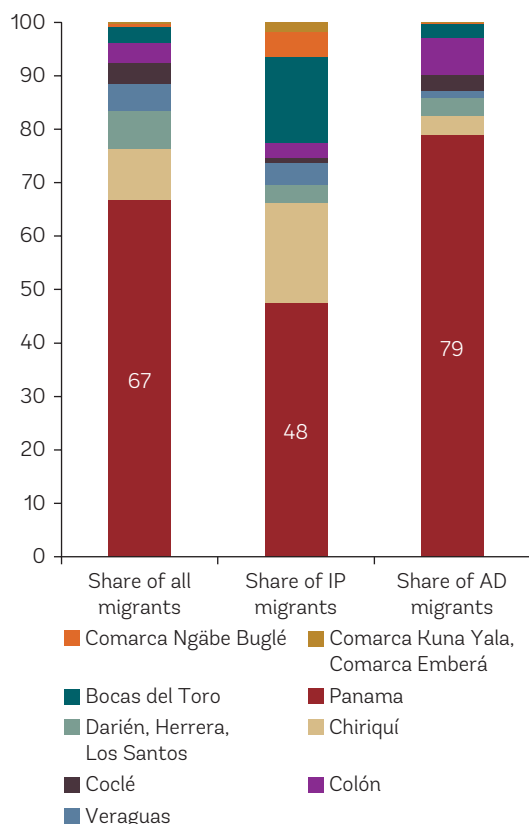
**FIGURE 4.8 Changes in Geographic Concentration of the Extreme Poor**



having migrated), the indigenous are slightly more likely (22.6 percent), and the migration rate for all other groups was 21.6 percent. Due to data limitations, it is not possible to look at either the total number of migrants (many persons may have migrated and then returned to their previous location in the ten-year reference period) or trace the full migration patterns.<sup>1</sup> However, the overall picture is one of movement with a tremendous bias toward the Province of Panama: 67 percent of all migrants moved to there. Among indigenous migrants, 48 percent moved to this province compared to 79 percent of Afro-descendants (figure 4.9).

Internal migrants to the Province of Panama show evidence of being positively self-selected: education levels of those migrants are higher than those of non-migrants (figure 4.10). The difference in education between migrants and non-migrants is especially pronounced among the indigenous population:

**FIGURE 4.9 Destination of Internal Migrants Between 2000 and 2010 (Percent)**



Source: Authors' calculations based on 2010 Population and Housing Census (INEC 2010).

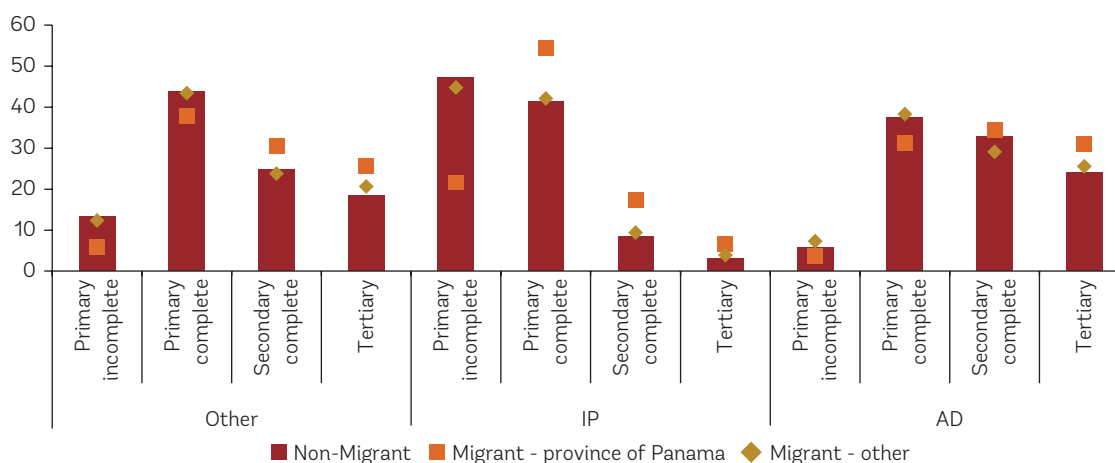
Note: For population ages 15 and older.

while 47 percent of the non-migrant indigenous adult population had not finished primary school, only 22 percent of the indigenous migrants to the Province of Panama fell into this category. Among the Afro-descendants and other Panamanian populations, migrants are more likely to have completed secondary or tertiary school than non-migrants, while those who did not finish secondary school are less likely to have migrated. This pattern of positive self-selection does not hold for migrants to other parts of the country, perhaps reflecting the greater

range of employment offerings for lower-skilled workers. Further evidence of self-selection comes from the fact that migrants are less likely to be unemployed than non-migrants (figure 4.11). However, this is probably also driven by return migration, unsuccessful migrants being more likely to return to their place of origin.

There remain wide disparities among various groups and areas in the country (figure 4.12). Geographic differences are large, with the poor under-represented in urban areas relative to the population of cities and over-represented in rural areas and the *comarcas*. In absolute terms, however, urban and rural areas have similar numbers of poor people at around 40 percent of the total. The remaining 21 percent of the poor live in the three largest *comarcas*. Although there are greater numbers of poor people in urban areas than in the *comarcas*, the urban poor are better off than their poor counterparts in the *comarcas*. Among the urban poor, monthly incomes are twice as high, the years of schooling of the head of household are more than double, a greater share of household members are of working age, and their school-age children are more likely to be enrolled in school than those in the poor households in the *comarcas*. And the discrepancies are greater among the extremely poor: the population living in the *comarcas* is worse off than other extremely poor persons in the rest of the country (figure 4.13). Forty-two percent of the extremely poor live in *comarcas*, despite that fact that only six percent of the total population lives there. The extremely poor in rural areas are somewhere in between the *comarcas* and the urban extremely poor on most indicators but actually have the highest income per capita per day (at US\$1.7 compared to US\$1.3 in the *comarcas* and US\$1.5 in urban areas).

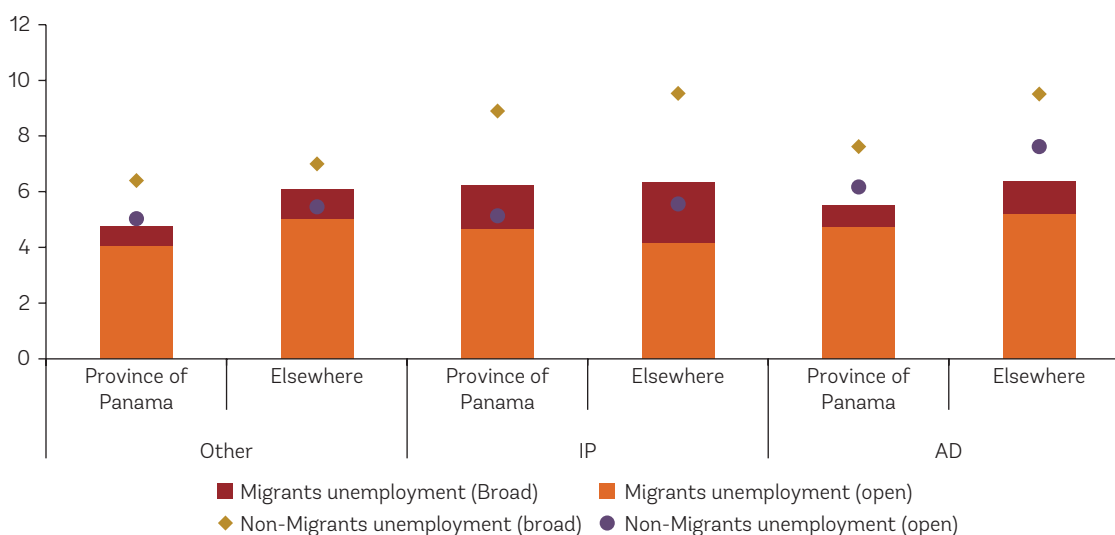
**FIGURE 4.10 Educational Attainment of Internal Migrants, 2010 (By Ethnicity, Percent)**



Source: Authors' calculations based on 2010 Population and Housing Census (INEC 2010).

Note: For population ages 15 and older.

**FIGURE 4.11 Unemployment Rates (Open and Broad), by Migration Status and Ethnicity, 2010 (Percent)**

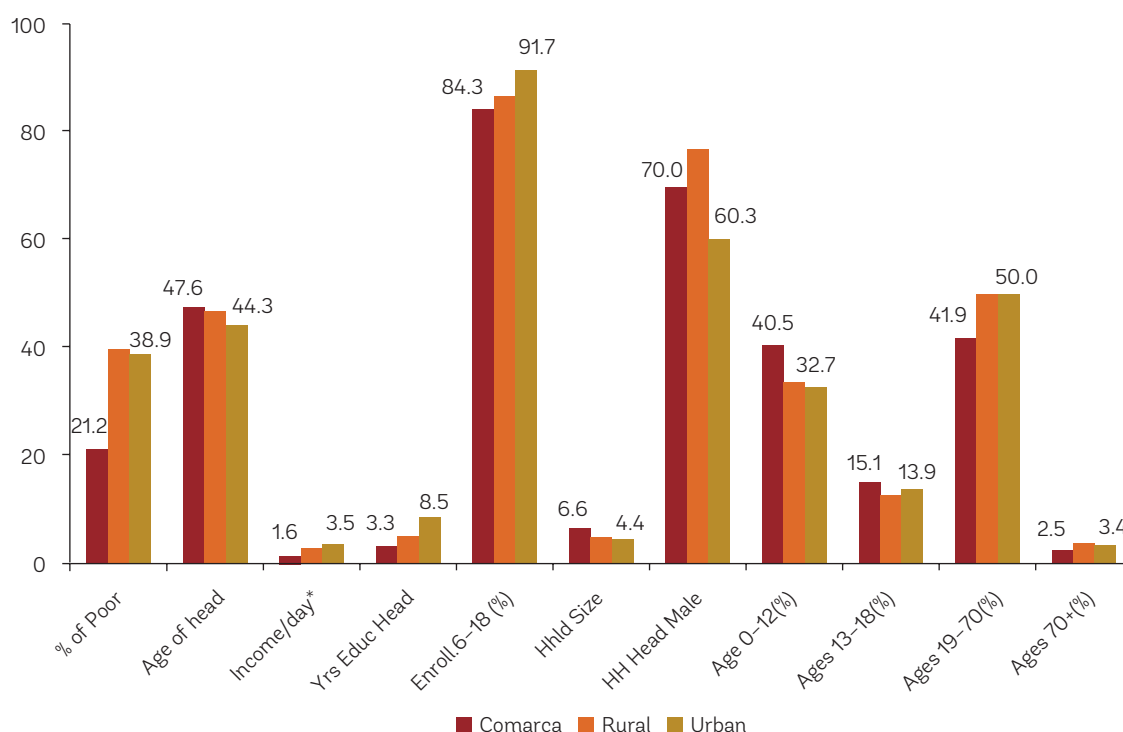


Source: Authors' calculations based on 2010 Population and Housing Census (INEC 2010).

Note: For population ages 15 and older; IP=Indigenous Peoples, AD=Afro-descendants, Other=All other ethnic groups; Unemployment (open) refers to those who report being unemployed and actively searching for work; Unemployed (Broad) includes those actively searching as well as "discouraged workers," those who would like to work but have given up searching.



**FIGURE 4.12** Characteristics of the Poor, by Geographic Area



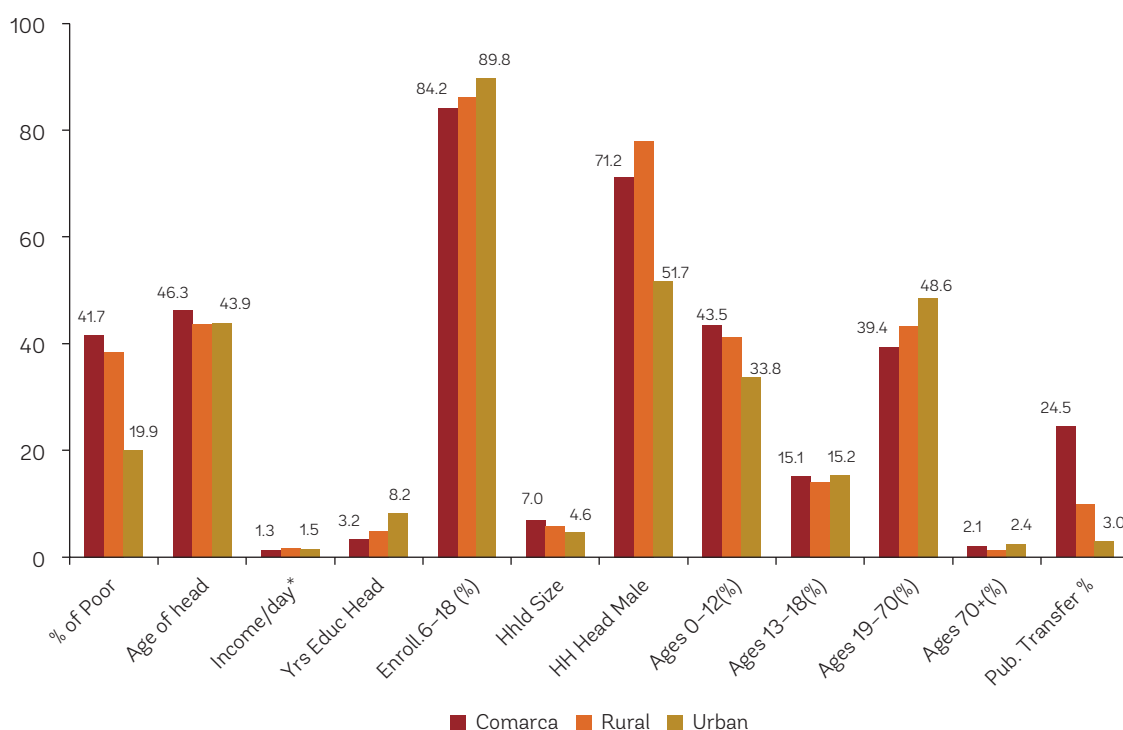
Source: Authors' calculations based on Panama household survey, *Encuesta de Mercado Laboral (EML)* (INEC 2007-2012).  
 Note: \* = per capita income.

Differences by ethnicity are also marked. Ideally, the data should allow a comparison among the indigenous population living in the *comarcas*, the indigenous population living outside the *comarcas*, the Afro-descendant population, and the rest of the population. However, as discussed in box 1.1, the data limitations preclude the calculations of comparable poverty rates of the full indigenous population or that of the Afro-descendants. The only data source that allows a comparison between these two groups, indigenous outside of *comarcas* and Afro-descendants, is the decennial National Population and Housing Census. The Census provides data on several indicators that can serve as proxies for welfare.

The indigenous population living outside of the five *comarcas* appears to be better off than their counterparts living in *comarcas* (table 4.2).<sup>2</sup> Those living outside the *comarcas* have much greater access to services, and their incomes are more than three times as high. They are also more educated even though their children have the same enrollment rate as those in the *comarcas*. Households tend to be smaller, with more working age members and more male-headed households—further evidence of selectivity in migration. Despite the fact that indigenous people living outside the *comarcas* appear to be doing better in terms of basic indicators, they still lag behind their nonindigenous counterparts on all indicators.



**FIGURE 4.13** Characteristics of the Extremely Poor, by Geographic Area



Source: Authors' calculations based on Panama household survey, *Encuesta de Mercado Laboral (EML)* (INEC 2007-2012).  
Note: \* = per capita income.

In contrast, Afro-descendants, on the indicators for which data exist, appear to be slightly better off than the population at large (table 4.2). On average, their access to services is higher, reflecting in part that many live in the urban areas of Colón and Panama City. Income levels are also higher as are education levels and school enrollment. However, none of the indicators related to services reflects the quality of these and there are legitimate concerns about service quality in Colón and parts of Panama City. Moreover, there is a concern that, for reasons of stigma, only the better off and more empowered members of the group will self-identify as Afro-descendant, which would lead to an over-estimation of welfare among Afro-descendants.<sup>3</sup>

However, with the available quantitative data, the Afro-descendant population does not appear to be at a particular disadvantage.<sup>4</sup>

Economic growth has translated into improved access to services, but despite evidence of convergence, sharp differences remain; growth has not been enough to fill the gaps. Between 2000 and 2010, education levels (enrollment rates) have risen fastest in the provinces or *comarcas* with the lowest initial levels and in the areas with the biggest gap between males and females; notably, female enrollments have climbed more quickly than those of men. The convergence appears similar in terms of access to water with rates of change higher in the areas that started with lowest coverage (figure 4.14). Colón is an

**TABLE 4.2 Basic Characteristics of the Population by Ethnicity, 2010**

	Indigenous in <i>Comarcas</i>	Indigenous outside <i>Comarcas</i>	Afro- descendants	All others
Share of national population (%)	5.7	6.3	8.8	79.2
<b>Income levels</b>				
Income Per Capita Per Day (2010 USD)	1.3	4.8	13.2	11.9
<b>Dwelling characteristics</b>				
Access to electricity (%)	5.9	60.5	96.7	89.6
Access to water (%)	44.8	80.1	96.8	95.4
Flushing Toilet (%)	0.9	34.5	81.4	64.6
<b>Household Demographics</b>				
Age of head	45.3	41.4	47.7	48.0
Proportion age 0-12(%)	39.3	30.2	17.0	17.7
Proportion age 13-18(%)	12.8	12.3	8.0	8.4
Proportion age 19-70(%)	44.3	55.1	68.6	66.8
Proportion age 70+(%)	3.7	2.4	6.4	7.2
<b>Household Characteristics</b>				
Education of head (years)	3.5	5.9	10.9	9.5
Enrollment 6-18 yr olds (%)	82.8	82.9	93.0	91.5
Household size	6.0	5.4	3.4	3.5
Male-headed HH	68.4	80.8	66.9	71.2

Source: Population and Housing Census, (INEC 2010).

Note: Less than two percent of the Afro-descendants also self-identify as indigenous. For purposes of this analysis these people were considered Afro-descendants.

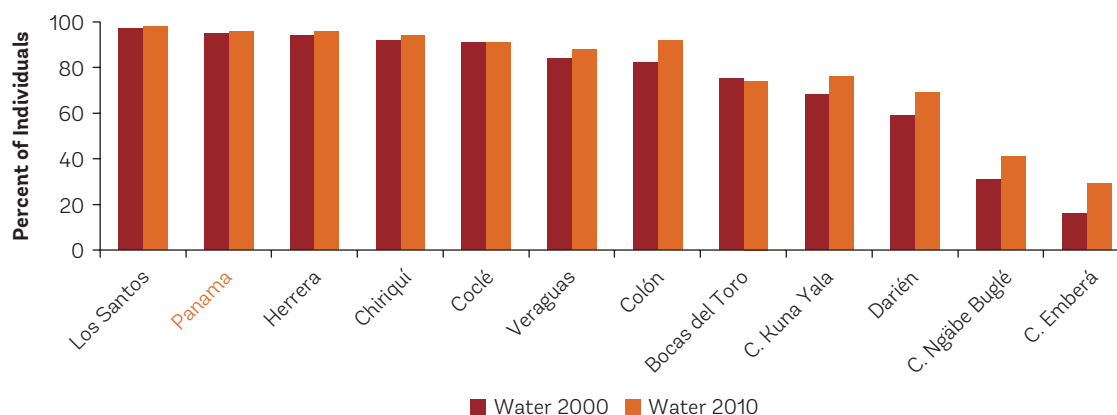
outlier here, showing a high rate of change. In terms of sanitation (sewer connections), the story is similar for all of the country except the three *comarcas*: these areas are almost completely excluded from access to sanitation (figure 4.15). Institutional factors affect the provision of public services in water and sanitation (see box 4.1).

There is a striking correlation between living in a *comarca* and having little or no access to water, sanitation or even electricity. Figure 4.16 shows this for running water in the dwelling, with the only exception being Guna Yala. In part, this reflects the rural nature of the *comarcas* and the relatively dispersed populations that live there. However, other rural areas have better services: in 2008, a child in

a *comarca* had a 35 percent probability of having access to electricity compared to an 81 percent probability of an average rural child having electricity, while for sewerage connections, the numbers were 10 percent and 35 percent, respectively.<sup>5</sup> In short, the low coverage–*comarca* link is strong. Interestingly, the other ethnic minority in the country, the Afro-descendants, do not appear to be as constrained in terms of services, probably as they are more likely to live in urban areas.

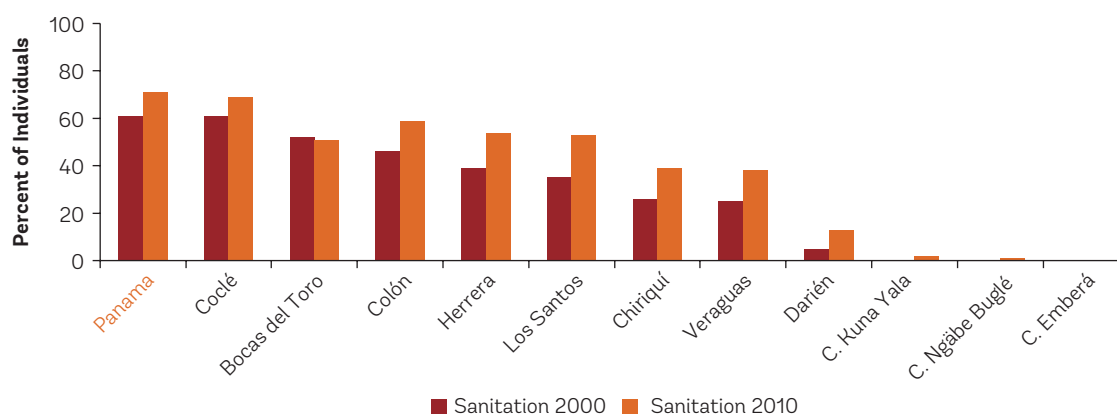
The disparities in access to services are reflected in the very different social outcomes observed across the population. In 2013, life expectancy in the *comarcas* was estimated to be between seven and nine years lower than

**FIGURE 4.14** Change in Access to Piped Water in the Dwelling, 2000–2010



Source: Authors' calculations based on 2000 and 2010 Population and Housing Census (INEC 2000 and 2010).

**FIGURE 4.15** Change in Access to Sewage Connection in the Dwelling, 2000–2010



in the rest of the country: 66.2 years in the *comarca* of Emberá in 2007 (66.9 years in 2009), and 68 and 68.6 respectively in those two years in the *comarca* of Ngäbe Buglé. In 2008, the last year when national data were available, malnutrition in the Ngäbe Buglé *comarca* was almost six times higher than in urban areas and under five mortality was almost twice the national average in 2012.<sup>6</sup> At just under 45 percent, teenage pregnancy

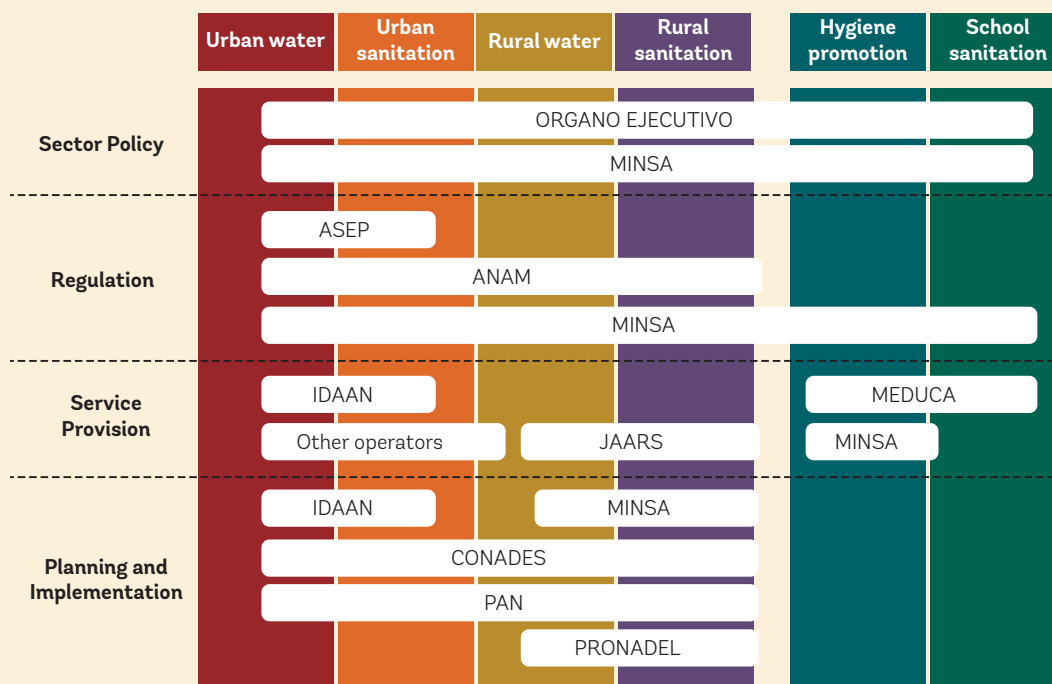
rates in the Emberá *comarca* are almost three times the national average of 15 percent and are similar to those of Ethiopia.<sup>7</sup> Bocas del Toro also shows poor health indicators and high dropout rates. The burden of related diarrheal illness in children falls disproportionately on rural and, especially, indigenous households and is estimated to cause 130 premature deaths and one million cases of diarrhea in children under age five each year.

### BOX 4.1 How Institutional Challenges Affect Service Delivery in the WSS Sector

Three main actors are responsible for policy setting, service provision and regulation: (i) the Ministry of Health through the Directorate of Water and Sanitation (DISAPAS), responsible for sector policy, coordination, and long-term planning, as well as smaller towns and rural areas; (ii) the National Water and Sewerage Institute (IDAAN), responsible for urban areas and rural communities with over 1,500 inhabitants; and (iii) the National Authority for Public Services (ASEP), which supervises and regulates service provision in urban areas. Multiple other actors play a role in the sector, including the National Environmental Authority (ANAM) for water quality standards, Autoridad del Canal de Panama (ACP) for selling bulk water to IDAAN, and the Ministry of the Presidency for high priority Water Supply and Sanitation (WSS) service infrastructure.

On the organizational side, unclear roles of the different agencies hamper effective regulation, and having multiple implementing agencies for infrastructure provision

**FIGURE B4.1 WSS Sector Institutional Framework Diagram**



Source: Adapted World Bank 2014b.

box continues next page

## BOX 4.1 continued

impedes coordination. Specialized rural water boards do not receive appropriate technical support to allow them to run their small systems with adequate cost recovery to ensure sustainability. **Sector policy setting** remains disjointed, with DISAPSAS unable to exercise its full mandate in strategic planning and oversight. This is due to other agencies executing infrastructure investments in parallel, with no single investment plan for the sector, leading to overlaps and the lack of a coherent vision. Finally, **the regulatory function** of the sector is clearly lacking, compared to other sectors in Panama, such as electricity and telecommunications. Water tariffs applied by IDAAN are very low and have not been revised since 1982, which means that if adjusted for inflations tariffs have actually decreased by about 50 percent since then. With a flat rate for high minimum consumption, even in metered areas, the tariff structure does not encourage water conservation, resulting in a significant gap in both operations and maintenance as well as investment needs, making IDAAN highly dependent on budget transfers. This state is further exacerbated by high levels of nonrevenue water (54 percent in the City of Colón) and high staffing levels (5.3 per thousand water connections) that often lack the technical capacity for effective service provision and management.

Note: With regard to the regulatory function, in 2014 ASEP drafted only 371 resolutions for the WSS sector, compared to 5578 and 7834 for the electricity and telecommunications sectors respectively. [Http://www.asep.gob.pa/](http://www.asep.gob.pa/).

In addition, fuel wood burning in rural indigenous households is the primary culprit for acute respiratory illnesses, with an estimated economic cost of 0.2 percent of GDP. Finally, children in *comarcas* are more likely to drop out of school than either their rural or urban counterparts: at age 18, only 39 percent of children in the *comarcas* are in school compared to 47 percent in rural areas and 69 percent in urban ones.

## Drivers of Poverty Reduction

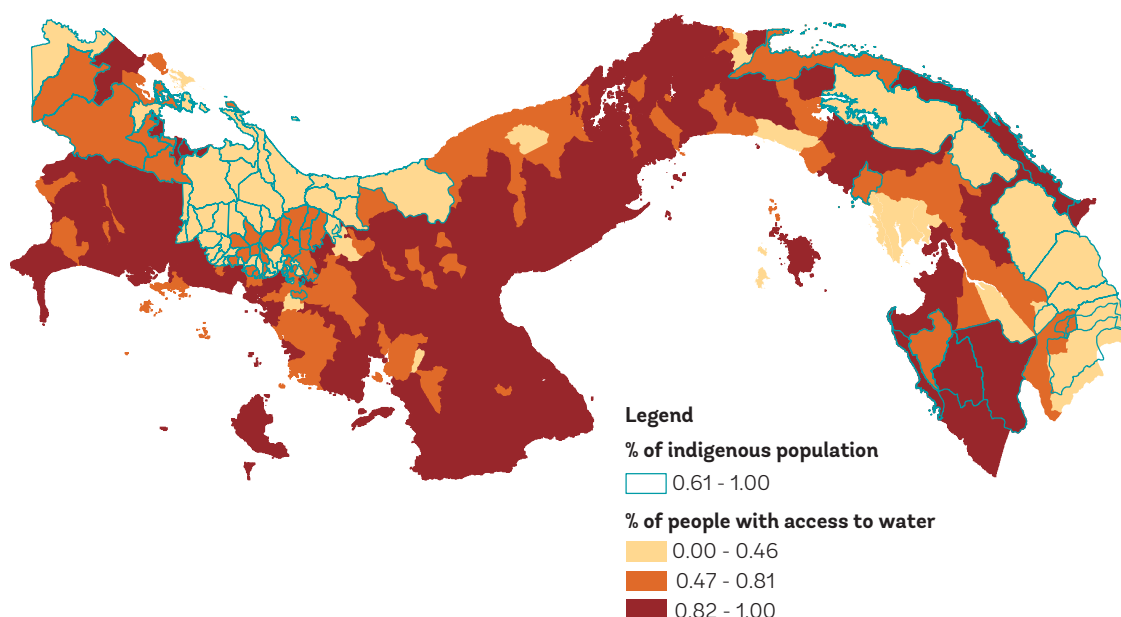
**THE POSITIVE EFFECTS OF ECONOMIC GROWTH** on poverty reduction came through a combination of increased labor income and a strong program of public transfers (figure

4.17 and figure 4.18). Sources of income that mattered for poverty reduction varied across the country and by type of poverty. Labor income was the key driver of overall poverty reduction in urban areas and the *comarcas*. In contrast, government transfers played the biggest role in poverty reduction in rural areas. For extreme poverty reduction, labor income was important only in urban areas: in rural areas and the *comarcas*, labor income changes would have increased poverty in the absence of government transfers.

### Labor income

The differential effect of labor income on poverty reduction is due both to the geographic distribution of job growth and the quality of those jobs. The patterns of economic growth

**FIGURE 4.16** Access to Running Water in the Dwelling by Concentrations of Indigenous Peoples



Source: Authors' calculations based on Population and Housing Census (INEC 2010).

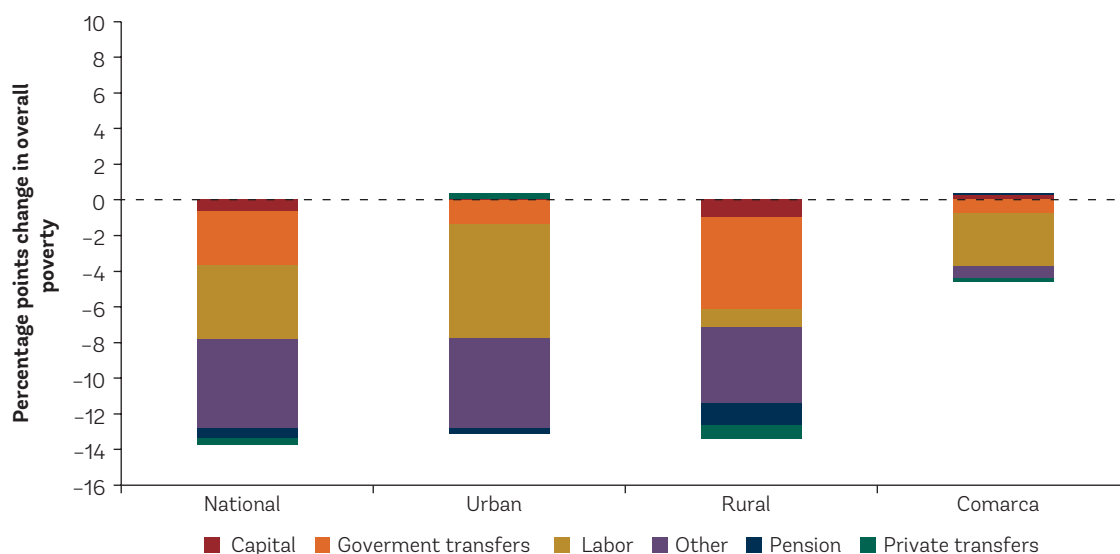
are seen in both the number and the types of jobs that have been created in the past ten years. As described in Chapter 2 above, job growth in Panama has been substantial in recent years. However, this has benefited different regions disproportionately. Census data from 2000 and 2010 show that the bulk of these new jobs have been in the Province of Panama (figure 4.19).<sup>8</sup> Nonetheless, the *comarca* Emberá has seen the sharpest job growth, up 58 percent compared to 43 percent in Panama (and 49 percent in next fastest growth province, Darién). In contrast to the growth in jobs in the *comarca* Emberá, the *comarca* Ngäbe Buglé saw a net loss of jobs while Guna Yala saw an increase of only 17 percent.

The quality of the jobs created also differs by region of the country (figure 4.20). The

areas with the lowest poverty reduction, the *comarcas*, were largely those with low net job growth. In the *comarca* Emberá, where job growth was strikingly high, the majority of these jobs were in agriculture, typically a low-productivity sector in Panama. In fact, almost half of the new jobs generated in the *comarca* Emberá required only a primary education or less. In contrast, for Coclé, Herrera, and Los Santos, the provinces with the greatest poverty reduction between 2007 and 2012, job growth was much higher (ranging from 26 to 41 percent), and most jobs created in these provinces were those that required either completed secondary schooling or tertiary studies: 84 percent in Herrera, 93 percent in Los Santos, and 73 percent in Coclé.

The net result is continued low levels of income diversification among the indigenous

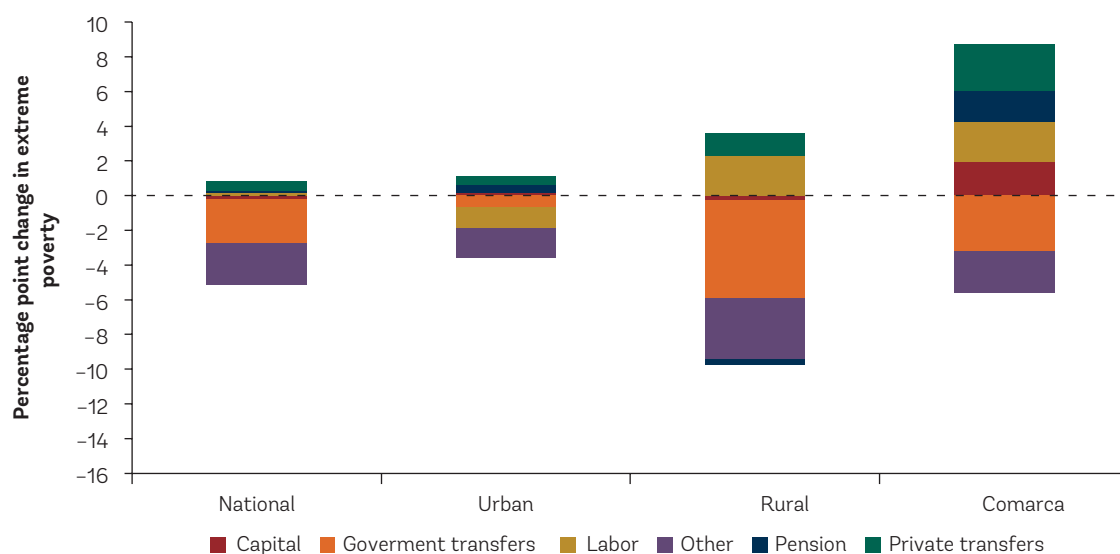
**FIGURE 4.17** Contribution of Different Income Sources to Changes in Overall Poverty, 2007–2012



Source: Authors' calculations based on EML (INEC 2007–2012).

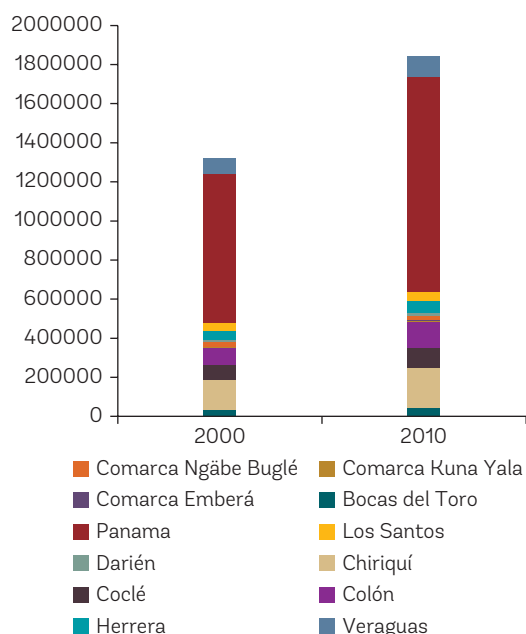
Note: Other incomes include imputed rent, private scholarships, and other sources not included in existing categories.

**FIGURE 4.18** Contribution of Different Income Sources to Changes in Extreme Poverty, 2007–2012





**FIGURE 4.19 Net Number of Jobs Created by Geographic Area, 2000–2010**



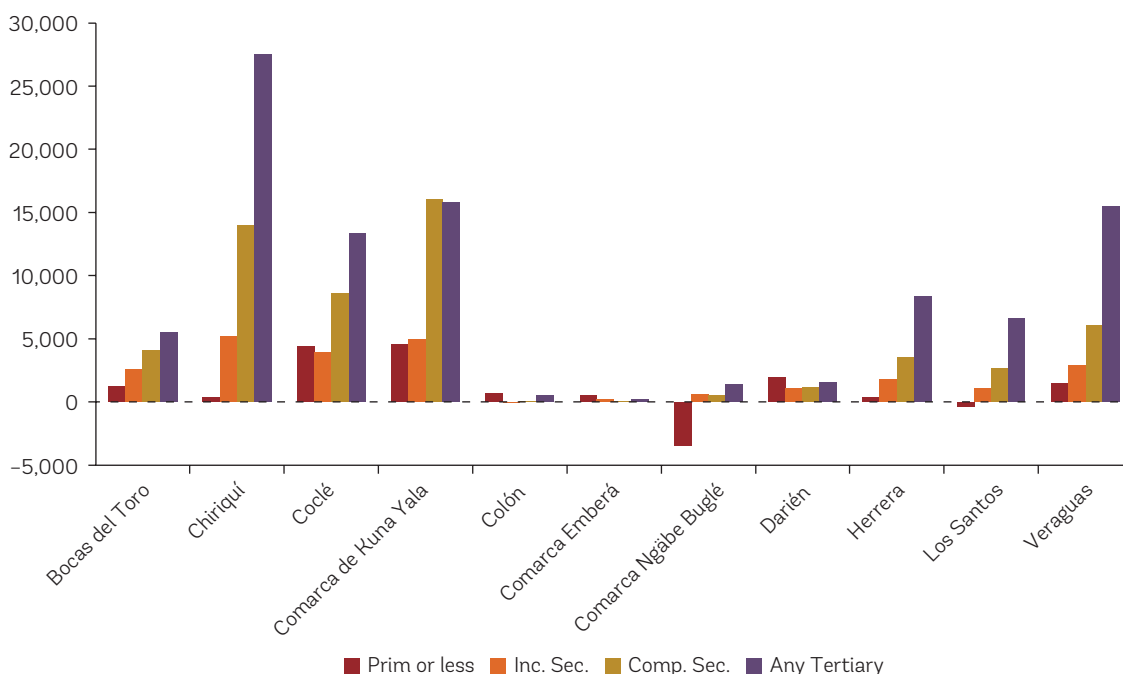
Source: Authors' calculations based on Population and Housing Census (INEC 2000 and 2010).

populations in the *comarcas*. Despite a decline, agriculture still provides two-thirds of labor income in the *comarcas* compared to only 44 percent in other rural areas, a dependence that affects welfare gains. Agriculture is a sector that is shedding jobs and represents a small share of GDP; moreover, agriculture productivity is neither growing nor is it even as high as Latin American averages.<sup>2</sup> Why agriculture has lagged behind is unclear. Given that returns to other sectors in Panama are higher, there is probably underinvestment in agriculture. This reliance on agriculture also results from the fact that the populations in the *comarcas* are physically distant from the growth corridors of the country and lack other skills, which may act as a further barrier to obtaining jobs in other sectors.

Internal migration is linked to the uneven growth of jobs in Panama and migration leads to greater income diversification.<sup>10</sup> The sector of employment among migrants is largely determined by destination, not ethnicity (figure 4.21). Between 18 and 25 percent of migrants who migrated to the Province of Panama worked in commerce, regardless of their ethnicity. However, working in hotels, restaurants, and private households was more common among indigenous migrants, who have lower educational attainment than the other two groups. Construction work is also under-represented among indigenous migrants, raising questions about barriers to entry. Those among the indigenous who migrate outside of the Province of Panama are more likely to work in agriculture: the sector accounts for more than half of migrant employment outside of the *comarcas* and the Province of Panama.

Overall, women have benefited from the growing job market.<sup>11</sup> The rate of growth of jobs for women has outpaced that for men—25.6 percent compared to 15.4 percent respectively between 2007 and 2012. Female labor force participation rose five percentage points between 2000 and 2012 to reach 53 percent. Unemployment rates for women fell dramatically as well—from 18 to five percent in five years between 2007 and 2012, with the 2012 rate just one percentage point higher than that of men. The quality of jobs for women also improved; in 2000 59 percent of all jobs held by women required complete secondary education or higher, and by 2010 this had risen to 69 percent. The share of male jobs requiring these levels of education was just 45 percent in 2010.<sup>12</sup> Female employment in the informal sector remained lower than that for men (27 percent compared to 31 percent, respectively) although the figure for men is

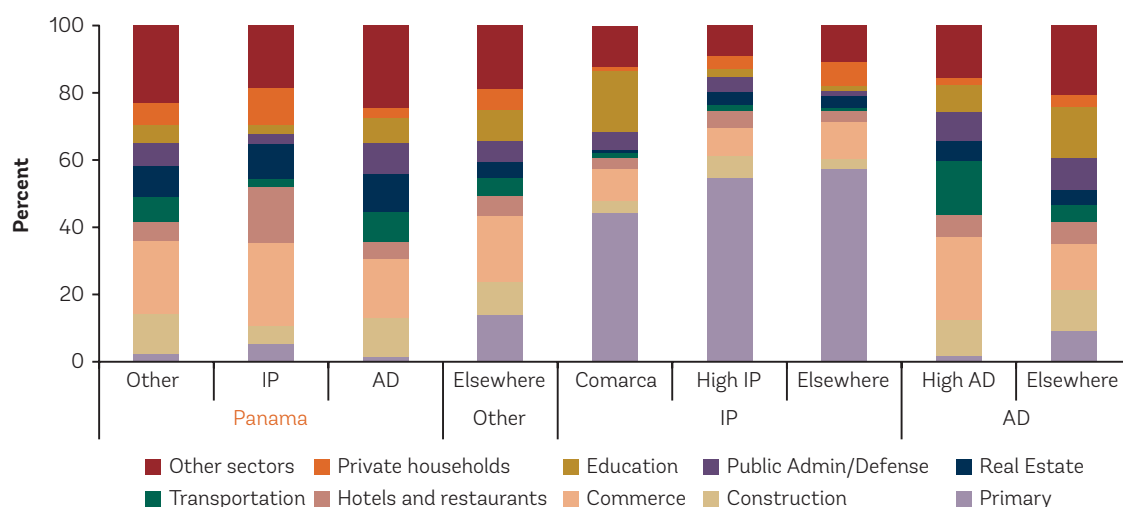
**FIGURE 4.20 Net Number of New Jobs by Education Level and Geographic Area, 2000–2010**



Source: Authors' calculations based on Population and Housing Census (INEC 2000 and 2010).

Note: The Province of Panama is omitted because of scale issues.

**FIGURE 4.21 Sector of Employment in 2010, Migrants by Ethnicity and Destination (Percent)**



Source: Authors' calculations based on Population and Housing Census (INEC 2010).

Note: For population ages 15 and older.

starting to reach that of women on this indicator. The gender income gap in Panama was the lowest in Latin America in 2010 at 0.90. However, of concern are the continued occupational segregation of jobs and relatively low labor force participation rates of women; the Latin American and Caribbean (LAC) average is five percentage points higher than that of Panama.

### Public transfers

Government spending has played a significant role in reducing extreme poverty and overall poverty in rural areas. Overall spending in the social sectors is similar to that of Panama's neighbors: 13.3 percent in Panama compared to 13.7 percent in Central America. A series of programs and benefits have been introduced in the past few years. *Red de Oportunidades*, the conditional cash transfer program begun in 2003, is the largest. The program consists of four components: (i) conditional cash transfers to beneficiaries contingent on enrollment of children in school and the use of preventive health care services; (ii) provision of the health and education services required by beneficiaries; (iii) support to families in accessing such services; and (iv) infrastructure improvement. The cash transfer is designed to mitigate poverty today and, by increasing human capital, poverty in the future. The *100 a los 70* non-contributory pension program provides a pension to all elderly persons with no other pension. In 2014, this was modified to provide US\$120 to all persons 65 and older. Finally, the *Beca Universal*, or universal education benefit, provides cash transfers to family to encourage school attendance. The benefit is given contingent on a student attending school for a given

number of days and maintaining a minimum grade level. The program started as an effort to lower secondary school dropout rates but has since been expanded to primary school as well.

The impact of the *Red de Oportunidades* has been positive. A quantitative analysis of the program found important effects.<sup>13</sup> For rural children ages 12 to 15, the program led to a 10.2 percentage point increase in school enrollment and a similar (10.1) decrease in child labor. In the *comarcas*, the increase in school enrollment was a bit lower at 7.9 percentage points, but the decrease in child labor greater (15.8 percentage points). The health benefits were not as large across the board but improved in some areas: incidence of *Panicolau* test rose almost 12 and 15 points among rural and indigenous women respectively. A qualitative analysis of the program highlighted the overall positive perceptions of the program and identified some areas for improvement. Beneficiaries noted not just the economic benefit and access to services but also an increased sense of social inclusion and female empowerment. Children's access to schooling has improved. In terms of health, awareness regarding preventive reproductive health increased. The report found that the program has had the unexpected positive results of strengthening social capital and spawning initiatives for group savings and microenterprises. Highlighting this, beneficiaries suggested the introduction into the program of stages, with productive entrepreneurship as a final stage.

The benefits of *Red de Oportunidades* have been limited by a lack of differential services for the various ethnic groups in the country. The qualitative

study emphasizes the need for adaptation of service provision to the environment. There continue to be issues in access and educational quality, as well as the need for multicultural bilingual education in indigenous areas. Program beneficiaries also expressed the need for culturally appropriate health services and health workers with specific skills to work in different cultural contexts. The program has had less success in affecting malnutrition as well. There have also been concerns raised about implementation, with cultural sensitivities not being addressed and inappropriate conditions being applied.

The non-contributory pension program has the potential to lower poverty among the elderly although it has not yet completely delivered on its promise. While no formal evaluation of the program exists, simulations of first order effects using preprogram data (2009) show that a universal assignment of 100 balboas to all people 70 and older could reduce poverty among the older population by almost half and nearly eradicate extreme poverty. The differences in overall poverty reduction for men and women are fairly similar, although for extreme poverty the benefit would lower poverty among men less, suggesting that elderly men suffer from more severe poverty than do women. By 2013, however, only 30 percent of all elderly were enrolled in the program, thus reducing its impact on poverty. Nonetheless, it is clear that the program is benefiting the poor elderly (figure 4.22). The expansion of the program to 65 and older and the increase in the benefit will also have an important poverty reduction effect among the older population. If the program is to have this effect, however, issues affecting program

take-up will need to be understood and addressed.

The effects of the universal scholarship, *Beca Universal*, also have not been evaluated. The expansion of the program from secondary to all students has made it more progressive. It is likely that the program has helped lower poverty in addition to increasing enrollment and retention rates. Simulations of its effects on poverty using data from before the program show a strong effect in indigenous areas. More recent anecdotal evidence from the Ministry of Education suggests that for the Ngäbe Buglé, the benefit has reduced the seasonal migration around the coffee harvest, allowing children to remain in school.

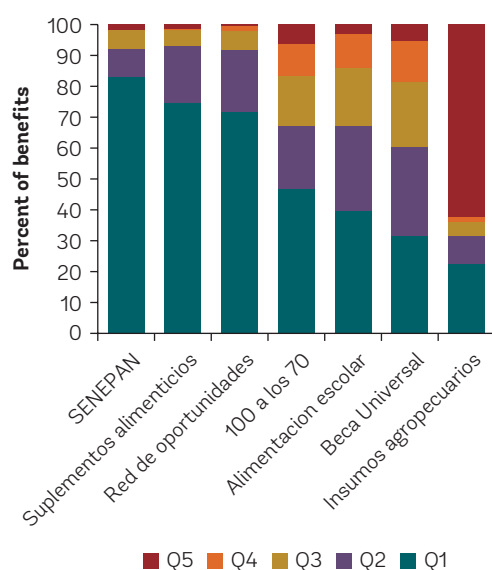
Despite the significant impact of public transfers on extreme poverty, there are still challenges related to both targeting and the take-up of programs. As noted previously, less than half of those eligible for the non-contributory pension actually received it in 2012, and lack of cultural adaptation may be affecting the take-up of *Red de Oportunidades*. Additionally, 18 percent of the population in the bottom quintile receives no social assistance of any sort. Nor does all spending benefit the poor (figure 4.23). There are costly leakages, with 31 percent of spending of the top seven social programs going to the top 60 percent of the population. This leakage of benefits to the richer end of the distribution is also mirrored in some of the government's subsidy programs. Cooking gas subsidies, for example, represented US\$82 million in 2010 dollars and increased government spending by 2.1 percent, yet the subsidy barely reaches the poorest: three in four extremely poor cook with wood.

**FIGURE 4.22** Contributory and Non-Contributory Pension Coverage, 2007 and 2012



Source: World Bank (forthcoming).

**FIGURE 4.23** Distribution of Benefits (Leakage), 2012



Source: World Bank (forthcoming).

## Notes

1. As intermediate moves cannot be seen in the data, it is unknown if rural migrants move directly to large urban areas or make a series of intermediate moves, moving first to small towns or cities and then to larger ones.
2. Using the census data allows for an analysis of all five *comarcas*, not just the three largest represented in the household survey (EML). However, approximately three percent of the indigenous population in Panama lives in territories that have not been given the legal status of *comarca*. These are considered to live in non-*comarca* areas for the purpose of the present analysis.
3. We are indebted to members of the civil society consultation group around Afro-descendant issues for this insight.
4. See Chapter 5 below for a discussion of other issues related to Afro-descendants that these data cannot address.

5. World Bank 2011.
6. World Development Indicators (WDI), World Bank, Washington, DC, <http://data.worldbank.org/products/wdi>.
7. Population and Housing Census (INEC 2010) and WDI (see note 7 above).
8. The Census data are less up to date than the *Encuesta del Mercado Laboral* but have the advantage of allowing the analysis to be done for a longer time period and to be done for the three *comarcas* separately.
9. Productivity here is defined as total GDP of the sector divided by number of jobs in the sector.
10. Growth can create the incentives for migration, but at the same time migration can create a labor pool that can facilitate growth. Given the data limitations, no attempt is made here to determine causality. The self-selection discussed above could also be linked to employment diversification.
11. Unless otherwise mentioned, this section on labor markets and women is based on World Bank 2014a.
12. The data on quality of jobs (education and formality) are from the 2000 and 2010 Population and Housing Census (INEC 2000 and 2010).
13. Arráiz and Rozo 2011.

## References

- Arraiz, I., and S. Rozo. 2011. "Same Bureaucracy, Different Outcomes in Human Capital? How Indigenous and Rural Non-Indigenous Areas in Panama Responded to the CCT?" Documento de Trabajo OVE /WP-03/11. Oficina de Evaluación y Supervisión (OVE), Inter-American Development Bank, Washington, DC.
- INEC (Instituto Nacional de Estadísticas y Censo). 2007–2013. *Encuesta del Mercado Laboral*. Contraloría, Panama.
- INEC (Instituto Nacional de Estadística y Censo). 2000 and 2010. *Censo Nacional de Población y Vivienda*. Contraloría, Panama.
- World Bank. 2011. "Panama Poverty Assessment: Translating Growth into Opportunities and Poverty Reduction." Report No. 62955-PA, World Bank, Washington, DC.
- World Bank. 2014a. "Panama Gender Note." Latin American and the Caribbean Poverty, Gender and Equity Unit (LCSPG).
- World Bank. 2014b. *Panama: Monitoring Country Progress in Drinking Water and Sanitation (MAPAS)*. Washington, DC: World Bank. <http://documents.worldbank.org/curated/en/2014/04/19647786/panama-monitoring-country-progress-drinking-water-sanitation-mapas>.
- World Bank. Forthcoming. *Central America Social Sector Expenditure and Institutional Review*.





## 5. Prioritization Linked to Inclusion

### Benchmarking

**THE STRONG ECONOMIC GROWTH** in recent years has been inclusive, yet it had different effects across regions and populations—with some benefiting significantly less. On the positive side, incomes of all groups rose, with those at the lower end and the middle of the income distribution increasing the most. Economic growth also translated into the expansion of services and access to education and health. Poverty fell, and social outcomes improved. Overall, Panama's poverty rate places it ahead of most of its peers (figure 5.1). However, the analysis in the previous chapter has shown that even in an environment of strong growth pre-existing income and opportunity gaps in the country have persisted. Moreover, it is unclear that the present growth model will be adequate to eradicate extreme poverty in the near future.

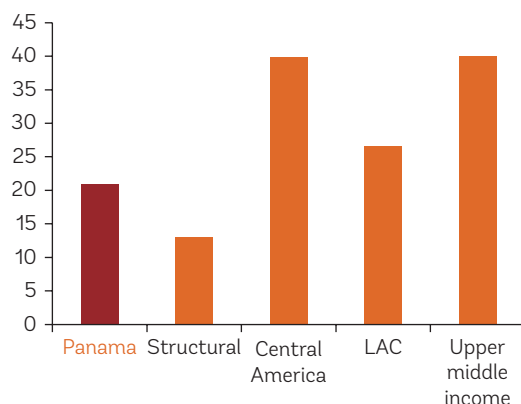
### Within Panama

Comparing different population groups reveals a continuum of states of poverty even within the groups of poor and extremely poor Panamanians. Using household survey data, comparisons of income poverty, human capital, and household characteristics were made for the populations living in urban and rural areas and the *comarcas*. The results of the comparison are clear (see figures 4.12 and 4.13 in the previous chapter). Among the poor and extremely poor in Panama, the groups with the least human capital, lowest incomes, and greatest dependence on social assistance are the indigenous population living in the *comarcas*. Using the census data,

comparisons were made by ethnic groups: indigenous people living in *comarcas*, indigenous people living outside of the *comarcas*, Afro-descendants, and all others in the country. The census does not provide a comparable measure of income poverty but does have information on human capital, income, and demographic and household characteristics linked to welfare. Again the results of the comparison (see table 4.2 in the previous chapter) show a clear welfare hierarchy: among the poor and the extremely poor, it is the indigenous living in the *comarcas* that have the lowest levels of income and human capital and show the highest dependency ratios.

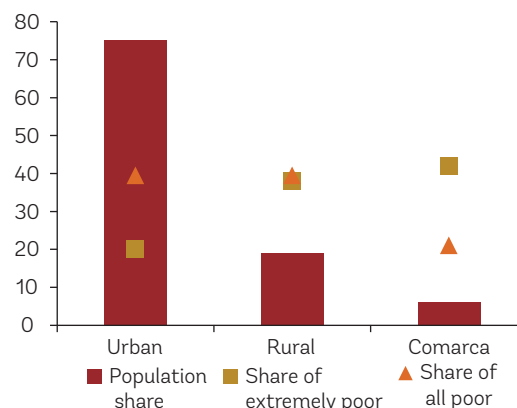
High economic growth benefited some groups less, particularly the indigenous population. Overall poverty reduction in the past five years has been on the order of 34 percent (28 percent for extreme poverty). The *comarcas* have also experienced a lower level of poverty reduction than the rest of the country. Urban areas saw extreme poverty fall 40 percent between 2007 and 2012. Extreme poverty in rural areas fell only by 15 percent, less but still a respectable reduction. In contrast, the *comarcas* experienced only a four percent decline in extreme poverty in the same period. This means that the share of the extremely poor by area is even more disproportionate to the area's population share than before. Urban areas represent 75 percent of the national population, but only 20 percent of the extremely poor live in urban areas. The *comarcas*, however, where only six percent of the population lives, concentrate 42 percent of the extreme poor (figure 5.2). This concentration has increased markedly in the 2007–2012

**FIGURE 5.1 Panama's Poverty Rate Compared to Peers (US\$4 Per Day Poverty Line)**



Source: World Development Indicators (database), World Bank, Washington, DC, <http://data.worldbank.org/products/wdi>.  
Note: LAC=Latin America and the Caribbean.

**FIGURE 5.2 Share of Population and Extremely Poor by Area, 2012**



Source: Authors' calculations based on EML 2012 (INEC 2007–2013).

period: up from 24 percent to 42 percent (see figure 4.8 in the previous chapter). This pattern also applies to overall poverty.

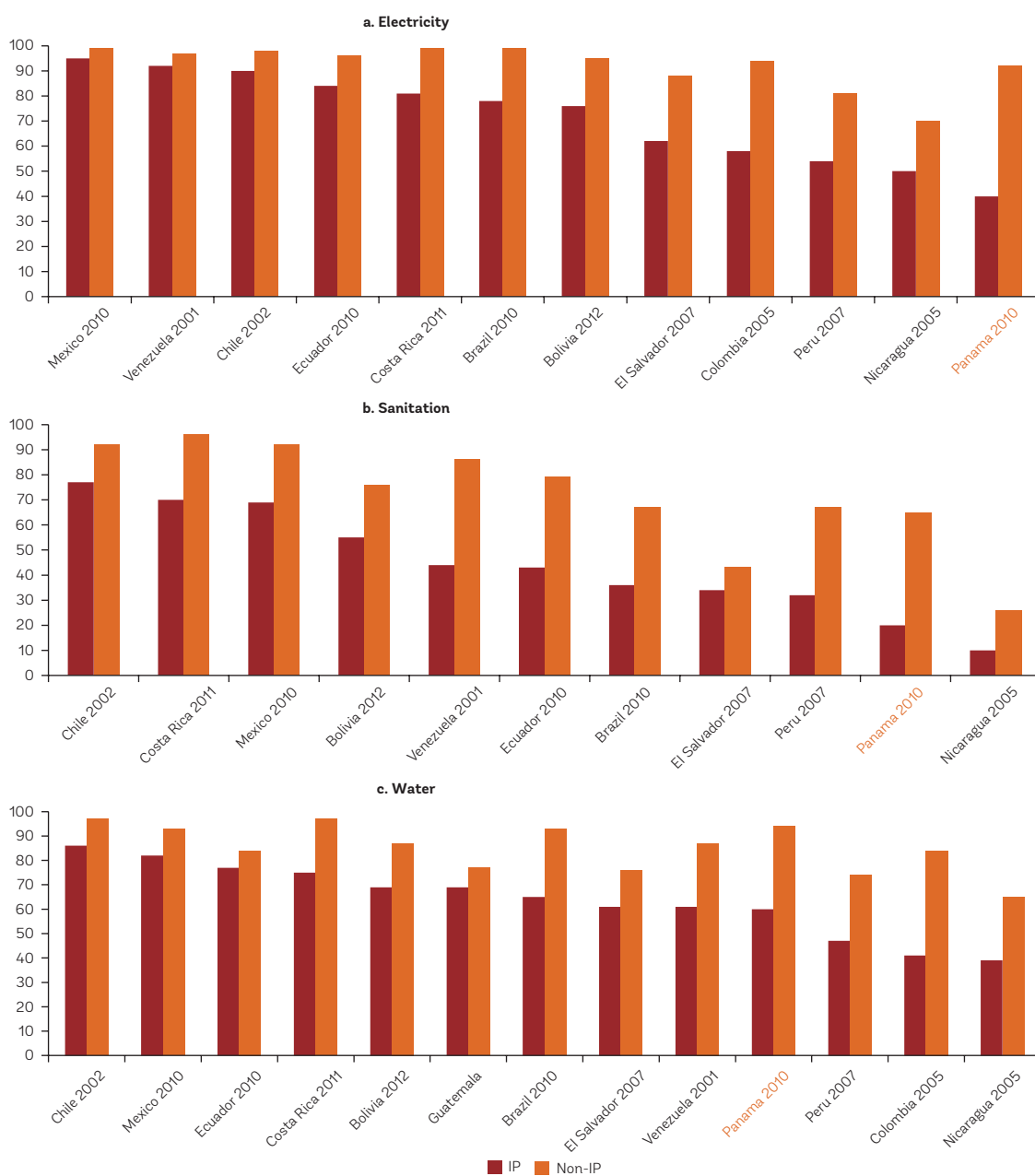
### Across Latin America

In addition to exhibiting the most severe poverty in Panama, the indigenous peoples living in *comarcas* in Panama fare poorly compared to other indigenous people in Latin America in both absolute and relative terms (figure 5.3). The substantial gaps between indigenous and nonindigenous populations within Panama in terms of services and human capital are mirrored in the gaps between the Indigenous Peoples of Panama and other Indigenous Peoples in the region. Additionally, other countries in the region with large indigenous populations have seen economic growth more effectively moving these groups out of poverty. In Bolivia, Ecuador, and Peru, the gap in poverty rate

changes between the indigenous population and the overall population is smaller than in Panama.

The differences between Panama's Indigenous Peoples' access to services and those in other Latin American and Caribbean (LAC) countries are striking. Among 12 Latin American countries, Panama has both the lowest level of electricity coverage among the indigenous population (40 percent) and the largest gap between the indigenous and nonindigenous populations (52 percentage points compared to the next largest gap of 38 percentage points in Colombia).<sup>1</sup> The gap in sanitation is also the largest; and only one country, Nicaragua, has lower absolute levels. For piped water, again, the gap is largest in Panama although the absolute level is higher than in Colombia, Nicaragua, and Peru. Access to Internet is also systematically lower among the indigenous populations in the

**FIGURE 5.3 Access to Basic Services by Ethnicity**



Source: World Bank 2014.

Note: IP=Indigenous Peoples; Non-IP=Nonindigenous Peoples.

region and the indigenous–nonindigenous gap in Panama is one of the largest.<sup>2</sup> On a slightly more positive note, while Panama’s rate of change in terms of access to sanitation is one of the slowest, the rate of change for access to water and electricity is faster than in many countries.

Health indicators are also lower among the indigenous population in Panama than in the rest of Latin America. Infant mortality rates among indigenous children are higher only in Bolivia. Panama has the largest gap between infant mortality rates of indigenous and nonindigenous children (three times greater among the indigenous population) and has one of the lower rates of change.<sup>3</sup> It is also one of only two Latin American countries where the elderly are more male than female, perhaps a reflection of the extremely high rates of adolescent pregnancy (Panama’s Indigenous Peoples have the highest rates of teen pregnancy among the indigenous in Latin America and the largest gap between indigenous and nonindigenous), and low rates of births attended by skilled medical practitioners.<sup>4</sup> The indigenous populations in Panama and Brazil are also disproportionately affected by HIV/AIDS.<sup>5</sup>

Only on education indicators do the Indigenous Peoples of Panama appear to do better than other indigenous groups in Latin America.<sup>6</sup> Levels are higher, and there have been many positive changes. Primary enrollment among indigenous children is almost universal; and secondary enrollment, while lower, is similar to that of other indigenous groups in the region. The country still lags behind, however, in tertiary enrollment. Nonetheless, in both rural and urban areas, the indigenous groups fare less well than their nonindigenous counterparts.<sup>7</sup>

## Priority Area

**THE INCREASING CONCENTRATION** of poverty in indigenous areas suggests that special attention is needed for these areas and this population group. The Indigenous Peoples of Panama have significant social capital, with well-developed and functioning community and governance structures. Their lands represent significant wealth and biodiversity. However, many of the Indigenous Peoples in Panama suffer from chronic poverty and have multiple deprivations: extremely low incomes, low access to basic services and infrastructure, lower human capital, poorer health outcomes, fewer labor options, and de facto land tenure insecurity. Many of these problems are long term and have been less responsive to economic growth and social program impacts than expected.

The complexities of addressing the twin goals in the *comarcas* require attention to issues of culturally appropriate economic opportunity, social assistance, infrastructure provision, and the enforcement of legal rights. The concentration of economic growth in specific sectors and geographic areas outside of the *comarcas*, along with the limited shifts in employment and earnings within the *comarcas*, highlight the constraints of the present growth model and domestic markets. The challenges faced by the social protection system in the *comarcas* also merit further attention. Spending levels are at adequate levels, but outcomes are muted. Education enrollments have increased, in part due to social assistance programs, but less in the *comarcas* than in other rural areas. The benefits in health, too, are more limited. The impact on poverty reduction, in the short term, is constrained because of limits both in coverage and in benefits. The lack of

services continues to be a constraint, particularly water and sanitation. Low population density and dispersed populations are often blamed for lack of service provision. While this may be true in part, the fact that Los Santos, one of the three provinces with the highest rate of poverty reduction in the past six years, also has a population density below that of the poorest *comarca* suggests that other barriers to service provision are at play and need to be addressed. Additionally, the lack of culturally appropriate models for development has reduced the positive impact of government programs and policies. Differences in community organization, communal property, among others, need to be taken into account. Furthermore, understanding the tradeoffs the indigenous peoples are, and are not, willing to make among different goals is needed.

Although solving the problems of extreme poverty in Panama will not be accomplished by focusing only on the Indigenous Peoples living within the *comarcas*, this appears to be a good starting point. The fact that the *comarcas* are home to 42 percent of the extremely poor in the country explains the focus on those areas, as does the fact that poverty is worse in the *comarcas* than in the rest of the country. As important, many of the issues that affect livelihoods in the *comarcas* also affect those of their rural neighbors. Some investments, such as those in basic infrastructure in roads, electrification, and sewage systems would benefit both groups—rural non-indigenous and rural indigenous populations. In contrast, investing in social services such as health and education would require special attention to the *comarcas* to adapt services to the social and cultural norms of the Indigenous Peoples. In short, while Panama's agenda on eradicating

extreme poverty is much broader than just the *comarcas*, the levels and severity of poverty there and the slowness of positive change suggest the importance of prioritizing the *comarcas*.

## Identified Opportunities

**THE NATIONAL INTEGRATED DEVELOPMENT PLAN** of the Indigenous Peoples of Panama (DIPORP) provides a new opportunity to affect welfare among Indigenous Peoples in Panama. This is because it represents a consensus, is focused on the broad range of issues that affect development, and looks to the long term as well as the short and medium terms.<sup>8</sup> The Plan is the result of the two-year effort by the National Indigenous Development Working Group (*Mesa nacional de desarrollo indígena*). The Working Group itself was established in the aftermath of a period of conflict between the indigenous communities and the national government around land rights, among other issues, and was charged with creating a national development plan that would become national policy and be approved into law.<sup>9</sup> (See box 5.1 for a summary of the specific areas of the DIPORP)

The Plan DIPORP represents a consensus among the 12 indigenous congresses. For the first time, there is one document that has been agreed upon by all the Indigenous Peoples in the country and represents a unified vision of the goals and priorities of these groups. The lengthy process undertaken by the Working Group to reach this consensus was carefully designed to respect the traditions and customs of each group. During the first phase of the Plan DIPORP's development (March–July 2013), the traditional authorities of each group

### **BOX 5.1 Main Areas of Action for the DIPORP**

- |   |   |
|---|---|
| <b><i>Governance and Territories</i></b>          | <ul style="list-style-type: none"><li>• Strengthen traditional structures toward a plurinational state</li><li>• Strengthen the leadership and capacity of traditional authorities</li><li>• Strengthen territorial governance and guarantee/strengthen land tenure security</li><li>• Adopt and implement international legal instruments (ILO 169) and establish safeguards</li><li>• Implement consultation and participation mechanisms for all projects and decisions that affect IP territories</li><li>• Empower IP women and youth and their participation and leadership</li></ul>   |
| <b><i>Economics</i></b>                           | <ul style="list-style-type: none"><li>• Develop a “green” and productive culture focused on environmental protection and conservation</li><li>• Promote entrepreneurial activities and development models owned by the territories</li><li>• Strengthen traditional production systems and develop new crops and food sovereignty</li><li>• Improve existing economic activities and structures</li><li>• Develop sustainable production models for territorial economic development</li><li>• Promote participation of women and youth in productive activities</li></ul>  |
| <b><i>Education, Culture, and Health</i></b>      | <ul style="list-style-type: none"><li>• Revise and implement Law 88 on Intercultural Bilingual Education</li><li>• Improve education quality and efficiency, focus on innovation and competitiveness and technology and communication</li><li>• Increase and improve higher education for youth and women</li><li>• Revitalize and promote cultural development</li><li>• Improve infrastructure and integrated health service, preventive medicine, access to clean water, and sanitation</li><li>• Increase the number of health personnel and improve coordination with authorities</li><li>• Strengthen, through the traditional authorities, traditional medicine through public resources</li></ul> |
| <b><i>Housing, Infrastructure, and Energy</i></b> | <ul style="list-style-type: none"><li>• Improve housing and communal spaces using traditional practices</li><li>• Establish a program of special attention for urban indigenous people and their housing</li><li>• Improve and expand existing road, WSS, energy, and communication infrastructure in territories</li><li>• Establish renewable energy programs</li></ul>   |

Source: Mesa 2014.

carried out a total of 94 consultation meetings among the 12 indigenous congresses. The second phase, that of drafting the Plan itself, was carried out by a committee of indigenous and government representatives and facilitated by the United Nations Development Programme (UNDP) representatives. The proposed Plan was submitted to the Working Group for approval on October 1, 2013, and then underwent a validation process (phase three) across the country and among all the indigenous groups. The Plan was approved in December 2013. The fourth phase, that of approval by the government and the national assembly, was launched prior to the elections; however, because of the change in government, this fourth phase has had to be restarted. A new law that would make the Working Group permanent (and validate the DIPORP) is expected to be submitted in 2016 to the national assembly for discussion and debate.

The broadness of the DIPORP is another factor that enhances its usefulness as a guide for improving shared prosperity and eradicating extreme poverty among indigenous populations. Unlike many related exercises, the Plan is not limited simply to legal issues but instead addresses the entire gamut of constraints and opportunities facing the Indigenous Peoples. The Plan is based on the three thematic pillars of economic development, social development, and legal rights; and its concrete goals and objectives across these areas provide important direction for how the national government, civil society, and the Indigenous Peoples' congresses can work together to address poverty eradication and promote shared prosperity.

Finally, the Plan DIPORP has a long-term focus. The Plan covers a 15-year

planning horizon. This longer-term focus provides an explicit opportunity for evaluation and adjustments to the Plan throughout implementation and allows for investment in both physical and human capital. Much of the Plan DIPORP focuses on training and capacity building, aimed at both the indigenous communities and public servants in an attempt to build new mechanisms of service provision and take-up. The Plan DIPORP also addresses short-term concerns, but it is the longer-term focus that provides the greatest opportunity for Panama to affect the welfare of the indigenous populations and to learn in the process.

Using the Plan DIPORP as a foundation will ensure that the cultural identity and the specific characteristics of the Indigenous Peoples are taken into account in the determination of the best combination of social assistance and economic development. Local knowledge, practices, systems, and experience are critical components in determining the best combination of social assistance and economic development that can lead to long-term success. The Plan DIPORP highlights how many of the barriers to service access and use result from poor design elements that fail to embrace culturally specific practices and systems, and to include the Indigenous Peoples in the design and delivery of programs—elements critical for ownership and uptake. Addressing the cultural and contextual issues may help to make public investment more effective: in the 2009–2012 period, overall budget execution was just under 70 percent although the majority of the sectors saw much smaller percentages (housing 26 percent, agriculture 30 percent, for example).<sup>10</sup> It is not clear whether the low execution of public investment is due to inappropriate investments,



low take-up, or low capacity of executing agencies.

The prioritization process for identifying opportunities to affect inclusiveness and the welfare of the indigenous populations is based on the DIPORP and consultations with the country team and stakeholders in Panama. The critical opportunities that have been identified reflect the three thematic pillars of the Plan: economic development, social development, and legal issues.

Opportunities have been identified around specific types of economic development, governance, and the provision of health and education services with the emphasis being on culturally appropriate interventions. In terms of economic activities, the focus would be on economic development with identity, namely promoting activities that generate income while enhancing existing natural resources. Increasing the quality and access of health and education services in indigenous communities requires that the service content and delivery mechanisms are culturally pertinent. Finally, the focus on governance is to take advantage of the opportunity to enhance the Indigenous Peoples' participation as Panamanian citizens while at the same time recognizing their cultural uniqueness and diversity in aspirations and worldview.

Realizing these economic growth opportunities will depend heavily on progress being made on the priority areas identified in Chapter 3 above. Focusing on overcoming the present inability of the energy sector to supply power to the *comarcas* will contribute to the development of new industries and job creation within the *comarcas*. In parallel, the opportunities identified around institutions (regulations, transparency, and effectiveness) will be needed to ensure that

revenues from economic opportunities can be generated and effectively managed for the benefit of the indigenous population while the land rights of the Indigenous Peoples are protected. This is of particular importance if the mining sector is to grow in a socially and environmentally appropriate manner. Finally, as described in the Plan DIPORP, education is a major concern. To the extent that the system can be improved through modernizing the curriculum and adapting the way in which service is provided, both dropout and attainment levels can be affected with subsequent effects on economic outcomes.

Addressing these issues has a direct effect on eradicating extreme poverty given that such poverty is concentrated in the Indigenous Peoples. Evidence for successful interventions in culturally appropriate economic development comes from Australia, Canada, Norway, Peru, and the United States (Alaska). Costa Rica has implemented a program of Payments for Environmental Services of US\$3 million per year to indigenous communities for ten years. Both this and the new *anteproyecto de ley* to regulate Payments for Environmental Services, presented to the national assembly in August of 2014, could serve as a model for Panama. Evidence of successful improvements in relationships between governments and the Indigenous Peoples' governance structures can be found in Bolivia, Brazil, and Canada, again examples of how such work could be implemented in Panama.

There is substantial political will around these opportunities. As discussed above, the Plan DIPORP creates a platform on which the indigenous communities themselves, the national government, and the private sector can build. Many of the proposed changes in

service delivery are already covered in law (Resuelto N° 4376 del 25 de agosto de 1999; Ministerio de Salud, Medicina Tradicional, Gaceta Oficial N° 23,880, 7 de septiembre de 1999; Bilingual and Intercultural Education Law No. 88). And there are agreements in place to legislate around the Plan DIPORP. Finally, the creation of a vice-ministry of Indigenous Affairs and the plan to transform this into a ministry both point to the political feasibility of actions around these identified opportunities.

## Filling Knowledge Gaps

**THE KNOWLEDGE GAP AROUND AFRO-DESCENDANTS** limits what can be concluded in this report. For those indicators of well-being that exist, Afro-descendants are, on average, better off than the Indigenous Peoples. However, they also suffer from multiple deprivations. A 2013 qualitative study highlights the fact that both Afro-Panamanians

and other Panamanians perceive racial discrimination as a factor that creates obstacles to Afro-descendants' economic, educational, social, and labor opportunities and limits access to basic services as compared to the rest of the Panamanian population. Furthermore, Afro-Panamanians perceive negative stereotyping in the media toward the Afro-descendant community. Afro-Panamanian women feel they are particularly discriminated against, especially in the labor force. Others argue that Afro-descendant populations live in areas with poorer infrastructure, have lower access to education, health care, employment, and political participation. An important task going forward will be to address both the data gaps in the country as well as to pull together what little data exist to attempt to better understand the constraints and opportunities of this group. It is hoped that the *Consejo de la Etnia Negra* (Council of the Black Ethnicity) will be a source for further consultation and data.<sup>11</sup>

## Notes

1. This comparison of the indigenous populations in Panama with those in the rest of Latin America is based on *Los Pueblos Indígenas en América Latina: Balance político, económico y social al término del Segundo Decenio Internacional de los Pueblos Indígenas en el Mundo* (World Bank, 2014c) and compares Panama to Brazil, Bolivia, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Mexico, Nicaragua, Peru, and República Bolivariana de Venezuela.
2. Economic Commission for Latin America and the Caribbean (ECLAC) 2014.
3. IBID.
4. Economic Commission for Latin America and the Caribbean (ECLAC) 2014 and World Bank 2014c.
5. United Nations Permanent Forum 2014.
6. Education data from ECLAC 2014.
7. ECLAC 2014.
8. The facts around the DIPORP come from the Plan itself (Mesa 2014).
9. The Working Group had four areas of work: (i) elaborate the Plan DIPORP, (ii) create a permanent space for consultation between the government and the Indigenous Peoples, (iii) improve the capability of the different actors to implement the consultation process and uphold international laws and agreements, and (iv) disseminate to all parties the development plans, agreement, and results in the appropriate language.
10. Data from Panama's Ministry of Economics and Finance website <http://mef.gob.pa>.
11. Created in 2007 under the presidential decree known as Ley 116, the council, which was to sit within the Ministerio de Gobierno, was designed to more proactively mainstream the

needs and aspirations of Afro-Panamanians into government programming, culturally

appropriate educational services, and anti-discrimination policies.

## References

ECLAC (Economic Commission for Latin America and the Caribbean). 2014. “Informe Los Pueblos Indígenas en América Latina.” Santiago de Chile.

INEC (Instituto Nacional de Estadísticas y Censo). 2007–2013. *Encuesta del Mercado Laboral*. Contraloría, Panama.

Mesa Nacional de Desarrollo Indígena, 2015. “Plan de desarrollo integral de los Pueblos Indígenas de Panama.” Panama.

OHCHR (Office of the United Nations High Commissioner for Human Rights). 2014. “Informe del Relator Especial Sobre los

Derechos de los Pueblos Indígenas, James Anaya. Adición: La Situación de los Derechos de los Pueblos Indígenas en Panama.” Report A/HRC/27/52/Add.1, United Nations, Geneva.

United Nations Permanent Forum on Indigenous Issues. 2014. <http://undesadspd.org/IndigenousPeoples.aspx>

World Bank. 2014. *Los Pueblos Indígenas en América Latina: Balance Político, Económico y Social al Término del Segundo Decenio Internacional de los Pueblos Indígenas en el Mundo*. Washington, DC: World Bank.

## 6. Sustainability

### HOW SUSTAINABLE IS PANAMA'S PROGRESS

toward achieving the twin goals of reducing poverty and increasing shared prosperity? The previous sections of this document have described Panama's progress toward the twin goals, the country's outstanding growth performance, and the overall inclusive nature of this growth so far. The current section turns to the future, addressing the question of whether Panama can sustain this progress. This question will be addressed from an economic, social, and environmental perspective, followed by a reflection on priority areas from a sustainability point of view.

### Economic Sustainability

**IN THE PAST, PANAMA HAS ACHIEVED** progress mainly through fast economic growth, a strategy that is viable for the short to medium term, albeit with a few qualifications. Given the rapid growth of recent years, it is expected to moderate in the future. As pointed out in the growth section, however, the identified priority areas of energy, education, and public sector institutions are likely to impact growth negatively in the future if they remain unaddressed. Moreover, as pointed out in the inclusiveness section, growth may continue to stop short of including the Indigenous Peoples of Panama, unless specific efforts are made to address their situation and opportunities. In addition, compliance with international transparency standards, continued efforts on macroeconomic stabilization policies, and the economic role of the Canal for the country need to be carefully taken into account. This section discusses these three challenges.

The sustainability of Panama's high reliance on foreign financing for its investment program will depend on continued progress on compliance with international transparency standards. In 2000 the country appeared on the blacklist of the Financial Action Task Force on Money Laundering (FATF) as a "high-risk and noncooperative jurisdiction" that did not support international efforts to fight money laundering.<sup>1</sup> In addition, Panama's practices on tax information sharing caught the attention of the Organisation for Economic Co-operation and Development (OECD) Global Forum, resulting in the initiation in 2009 of a peer-review process on the full and effective exchange of information. Finally, Panama's maritime registry also appeared on the blacklist of the Paris Memorandum of Understanding. This international body, made up of 27 maritime administrations from Europe and North America, seeks to eliminate the operation of substandard ships through a harmonized system of state control of ports. Panama's open registry allows for easy registration (often online), employment of cheaper foreign labor, and exemption for foreign owners from income taxes. Panama's registry is consistently beset by allegations of corruption and criticized for hiding the true identity of ship owners and for lax enforcement of rules and regulations.

Panamanian authorities reacted to the country's inclusion on the money laundering blacklist in 2000 by adopting legislation that moved the country up to the so-called gray list in June 2001. In particular, Panama introduced new legislation to expand criminal

offenses for money. The so-called gray list of the Financial Action Task Force names countries that are in the process of improving compliance with international standards on global anti-money laundering and combating the financing of terrorism. In the Latin American region, Argentina, Cuba, and Nicaragua also appear in this list. A recent report on observance of standards and codes conducted by the International Monetary Fund (IMF) found that Panama's anti-money-laundering framework was still not fully in line with the Task Force's recommendations. Panama has ratified the main United Nations Conventions on money laundering and has legal provisions in its Penal Code that are broadly in line with the standards set by the Task Force. According to the report, however, a number of significant deficiencies remain.<sup>2</sup>

In June 2014, the government made a high-level political commitment to addressing these remaining deficiencies. The government will work on implementing its action plan to address these deficiencies, including by (i) adequately criminalizing money laundering and terrorist financing, (ii) establishing and implementing an adequate legal framework for freezing terrorist assets, (iii) establishing effective measures for customer due diligence to enhance transparency, (iv) establishing a fully operational and effectively functioning financial intelligence unit, (v) establishing suspicious transaction reporting requirements for all financial institutions and designated nonfinancial businesses or professions, and (vi) ensuring effective mechanisms for international cooperation.<sup>3</sup> Progress in implementing this action plan and the passage of a new anti-money-laundering law would address the major deficiencies identified in the

report on observance of standards and codes and would help to strengthen Panama's status as an international financial and business center.

In terms of compliance with international standards of tax transparency, Panama has taken measures to move to the next phase of the OECD Global Forum's peer review process. Compliance with the Global Forum's standards involves demonstrating that national legislation and bilateral or multilateral agreements on information sharing for tax purposes meets the standards of ten different technical elements. In September 2009, the Global Forum launched a formal two-phase peer review process to monitor and review Panama's progress toward full and effective exchange of information: (i) Phase 1 (review of the legal and regulatory frameworks of each country) and (ii) Phase 2 (assessment of the practical implementation of the "internationally agreed standard" on tax transparency). Panama has made significant progress in these areas. The Panamanian government has successfully negotiated 19 Double International Taxation Agreements based on the OECD's Model Tax Convention on Income and on Capital, and 11 of these are already in force. As a result of these agreements, the government has adjusted its internal legislation for effectively applying international tax agreements and for promoting transparency and effective information exchange for tax purposes. In order to achieve this, the government passed (i) Law 33-2010 to introduce transfer pricing rules, permanent establishment, and tax residency into Panama's Fiscal Code; (ii) Resolution 088-DS/AL 2010 to create the International Taxation Unit and the Tax Information Exchange Unit; (iii) Law 2-2011 to identify and apply the "Know your clients" procedures; and (iv) Law 47-2013 to

immobilize bearer shares through a custodial arrangement system.

In addition, Panama was able to reform its maritime registry to advance to the white list of compliant countries. Since 2008, Panama has made enough progress in reforming its maritime registry to advance to the white list of the Paris Memorandum of Understanding.

Macro stability remains a continuous task and requires a high degree of fiscal prudence in order to be sustainable. Given that Panama has given up monetary policy as a policy tool and restrained the use of fiscal policy, the country has little room for discretionary fiscal policies. Mindful of this, Panama is managing its fiscal balance following a fiscal rule, the social and fiscal responsibility law introduced in 2002 and updated several times to adapt to realities such as the 2008 global financial crisis. The fiscal rule mandates fiscal deficit ceilings and has helped Panama to maintain fiscal prudence.

Additional budget flexibility would be welcome, however, in order to create room for countercyclical policy. Almost 70 percent of the total expenditure in Panama is rigid. This rigidity is even more binding in the context of low tax revenue collection, which averaged 10.2 percent of gross domestic product (GDP) from 2001 to 2013, compared to the already low 12.7 percent of GDP of the Central American region. The requirement of prudent fiscal policy restrains the government in terms of public service provision to Panamanian citizens. Moreover, 50 percent of nontax revenues come from the Panama Canal, making the government highly dependent on these resources. Policy measures such as the creation of a sovereign fund (Fondo de Ahorro de Panama) are

adequate but might be insufficient to provide fiscal resources for prolonged periods of downturn where revenues from both the Canal and tax collection are dropping in the context of a shrinking economy.

In addition to prudent fiscal policy, the country's dollarization also calls for a healthy banking sector. Lending practices in Panama need to be (and indeed have been) more conservative than in countries with a lender of last resort or a deposit insurance scheme with greater liquidity reserves and a strict, efficient supervisory role. The Panamanian Superintendence of Banks has played a strong role in this sense.

As an international financial center with extensive external links, the country is exposed to external risks and heavy reputational risks. Foreign assets of Panamanian banks represent 39 percent of GDP, significantly more than in the five largest economies of Latin America and the Caribbean (LAC), none of which exceed five percent. As a result, credit risks in foreign country debtors could have significant impact on the balance sheet of Panamanian banks. Similarly, foreign liabilities of the Panamanian banking system represent 95 percent of GDP, more than four times larger than Chile with the highest percentage (21 percent) relative to GDP among the top five Latin American economies. This implies that the Panamanian banking sector is highly exposed to international interest rates.

Finally, the crucial role of the Panama Canal for the country's economy warrants a close look at the sustainability of Canal operations. In particular, competition to the Canal requires constant adjustment to maintain market edge. Alternative shipping routes to the Panama Canal have been a constant source of curiosity, and there continue to be



many attempts to find other options for global routes. To the east, Egypt's recent project to widen parts of the Suez Canal seeks to enlarge transit capacity and decrease waiting time from 18 to 11 hours for most ships. The 72-kilometer works should be completed within one year, according to official government statements.

Closer to home, several countries have played with the idea of a dry canal in Central America; however, this remains a commercially less competitive option. The recent announcement by Panama's northern neighbor Nicaragua of the initiation of a project to build the Nicaragua Canal passing through Lake Managua could, once completed, have a significant impact on the share of trade going to Panama. The project, financed by the Hong Kong SAR, China-based HKND Group, is estimated to cost US\$50 billion and will include some of the largest earthworks in recent times to clear a 278-kilometer passageway through Lake Managua, raising significant environmental and social concerns.

In the medium to long term, another less-cited competition may be created by nature as global warming melts the Arctic cap. Its summer ice cover has already shrunk by more than 40 percent over the last few decades, raising the prospect that it may soon be possible to sail along the Arctic sea routes with ease. By using the Northern Passage along Russia's northern coast or the Northwest Passage through the Canadian Arctic archipelago, large bulk carriers would substantially reduce the distance between Asia, Europe, and North America. This would mean saving more than 4,000 nautical miles between German and Japanese ports.<sup>4</sup>

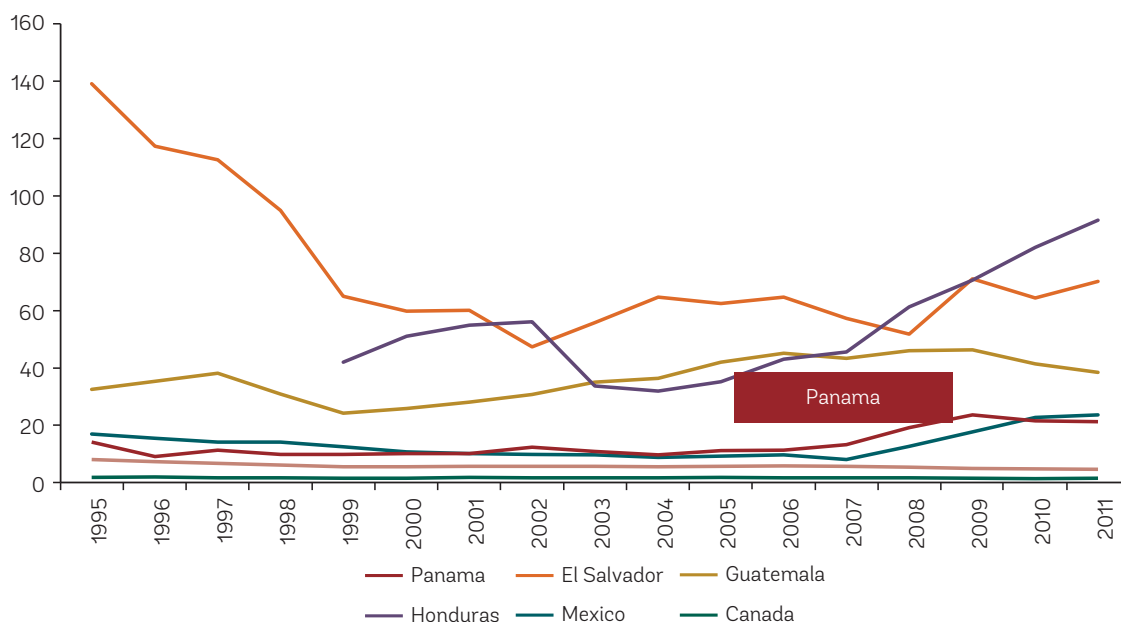
## Social Sustainability

**THE COUNTRY'S MAIN RISKS RELATIVE** to social sustainability and social cohesion are linked to (i) the dynamic growth that has lifted many into middle-class status while leaving others in extreme poverty, (ii) the crime and violence linked to Panama's strategic position as a drug corridor, and (iii) weak land rights protection. The stark economic inequalities and relative deprivations, along with both perceptions and evidence of corruption and more precarious forms of urban employment, create strains on society. Relative deprivation has led some groups to further organize and assert their political voice (such as the *Mesa Indigena*), while others take advantage of the low barriers to entry to the illegal drug trade that continues to grow in the country's unofficial economy.

Relative poverty in urban areas, exclusion, and the illegal drug trade are factors in the increases in violent crime and gender-based violence. The country's homicide rate places it 39th globally in terms of homicides (figure 6.1).<sup>5</sup> Cases of reported rape rose 36 percent between 2009 and 2012—and in 2009, 19.7 percent of women nationally experienced some kind of physical violence after the age of 12, with 9.3 percent reporting experiencing physical violence within the past year.<sup>6</sup> In addition, thefts have risen nine percent.<sup>7</sup> The population is very conscious of the increased crime and violence. In 2004, crime and violence ranked third in the perceived top five problems of the country, moving up to first place by 2008 and remaining there (figure 6.2).<sup>8</sup>

Urban youth, along with rural and indigenous populations, face particular risks. Similar to many of its Central American neighbors, Panama has a large youth cohort,

**FIGURE 6.1 Homicide Rates (per 100,000)**



Source: UNODC 2013.

**FIGURE 6.2 Critical Problems Facing Panama (In Order of Importance)**

2004	2006	2008	2010	2012
Unemployment/lack of jobs	Unemployment/lack of jobs	Crime and delinquency	Crime and delinquency	Crime and delinquency
Corruption	Crime and delinquency	Economy	Economy	Inflation, high prices
Crime and delinquency	Corruption	Unemployment/lack of jobs	Unemployment/lack of jobs	Corruption
Economy	Economy	Inflation, high prices	Inflation, high prices	Lack of water
Poverty	Lack of water	Corruption	Corruption	Economy

Source: LAPOP 2004, 2006, 2008, 2010, and 2012.

with 24.9 percent of the population between the ages of 15 and 29, 15 percent of whom neither work nor attend school. Rising gang activity, with roughly 240 gangs in Panama that operate in and around the major urban centers, is of some concern. Rural and indigenous areas are also vulnerable to crime and violence. This is particularly the case in

Darién, a region socially and politically isolated and economically marginalized. Darién has been affected by violent conflict between Colombian and Mexican cartels for control over narcotics trafficking routes and the presence of demobilizing guerillas and displaced persons from Colombia. The violence and insecurity affects production as families



move to larger population centers and women stop working in community agricultural plots.

Crime and violence have the potential to stifle growth if not managed. The examples from the neighboring countries are stark. An extensive growth analysis of El Salvador identified crime and violence as one of the two major constraints to growth with the huge cost of crime and violence a major factor limiting El Salvador's ability to compete on the world markets.<sup>9</sup> In Honduras, the costs of crime are estimated to represent 10 percent of GDP—health costs alone are estimated at 1.3 percent of GDP—and the country could increase its GDP by 0.7 percent with a 10-percent reduction in crime.<sup>10</sup> Although estimates of costs are subject to error, the fact that crime and violence, if unchecked, can hamper growth is a legitimate concern.

Struggles around infringements of indigenous land rights also pose serious threats to social sustainability. The legal establishment of the five *comarcas* between 1938 and 2000 formed the base of rights and protections for the indigenous population, a base that is widely recognized as a model of indigenous rights protection. However, the United Nations Human Rights Council (UNHR) argues that the legal framework is fragile and that Panama has significant problems in terms of both the implementation and the protection of the rights of the Indigenous Peoples, especially their rights over land and natural resources.<sup>11</sup> Panama is one of six Latin American countries that have not signed the International Labour Organization (ILO) Convention No. 169, a legally binding international instrument that deals specifically with the rights of indigenous and tribal peoples.

Illegal logging, large mining interests, and other encroachment on indigenous lands are ongoing problems. Land and resource issues have sparked protests and confrontations, leading to fatalities in recent years, and unrest may continue if Indigenous Peoples feel threatened. The head of the National Coordinating Body of Indigenous Peoples in Panama said in reference to this issue: "We are a peaceful people, but we are at war, and it is being fought by women, children, men, caciques," (Barrigón Dogirama as quoted in Berger 2013).<sup>12</sup> In 2011, after three weeks of violent protests and roadblocks by the Ngäbe Buglé and environmental groups, the government repealed Law 8, the reforms to the mining law. The cancellation of this law leaves a legal vacuum because the clauses of the mining law that Law 8 had replaced were not reinstated. Both the mining and tourism sectors, although potential sources of much-needed growth, also have continued potential to impinge on indigenous rights and lead to confrontations.

While the risks to social cohesion exist, various factors may play a mitigating role. The government's recent success in reining in homicide rates suggests that Panama may be able to avoid the escalation seen in neighboring countries. Most youth gangs in Panama are in relatively early stages of development, are largely a neighborhood-oriented phenomenon with limited adult involvement, and lack criminal sophistication or links to organized crime or corrupt public officials. The nascent gang problem, among others, could be dealt with if the country can pull together the well-established but fragmented array of actors—governmental and non-governmental, including the private sector—that work in the area of youth services and crime prevention to provide "wrap-around" services to

disenfranchised youth.<sup>13</sup> Ratification of ILO Convention 169 could help to promote land and other rights because ratification would trigger international supervision of the Convention's implementation, covering a range of issues from nondiscrimination to cultural specificities, consultation and participation, and the right to define priorities for development in the *comarcas*. The planned creation of a Ministry of Indigenous Affairs to help promote economic and social welfare of the Indigenous Peoples in the country and support the Plan DIPORP provides further opportunities to improve the protection of land and resources rights of the Indigenous Peoples in Panama.

## Environmental Sustainability

**SAFEGUARDING PANAMA'S WATER** and natural resource base is critical to the current growth model linked to the Canal and other economic activities. The Panama Canal needs close to 2,580 cubic hectometers of water per year and depends entirely on Lake Gatun, and consequently, the health of the surrounding rainforest. One month of full operation uses about one-third of the available Gatun Lake volume, resulting in a heavy dependence on precipitation, a concern in the dry season.<sup>14</sup> In 2015, once the Canal expansion is complete, an estimated 3,736 cubic hectometers of water will be needed to operate the Canal, a 45 percent increase. Ensuring that water resources are adequately managed is a top priority for the *Autoridad del Canal de Panama* (Panama Canal Authority, or ACP), which has put in place a strong management and monitoring system to ensure that different demands for water

are met while maintaining the health of the watershed ecosystem. The risk posed by shifting climate patterns, therefore, becomes critical to the sustainability of the Canal operation and hence economic sustainability. The El Nino Southern Oscillation climatological phenomenon over the Panama Canal watershed is characterized by a reduction of total rainfall. In terms of long-term climate change, the recent IPCC 5th Assessment (IPCC 2014) cites a trend of increasing precipitation over most of Panama. This is generally good news for the Canal. However, greater variability, with more frequent floods and droughts, poses a real risk.

Infrastructure-based growth requires strong environmental institutions and enforcement to avoid long-term irreversible negative impacts. As Panama continues on its development trajectory—fueled by investments in the construction and logistics sectors—and aspires to expand its image as a tourism and service hub, strong regulatory and institutional environmental framework, monitoring, and enforcement are needed to guide the design and implementation of infrastructure projects. The limitations of the national environmental authority, ANAM, in the areas of priority setting, planning, and capacity to implement key regulations can lead to significant negative impacts. Environmental information systems are also an important component in facilitating greater public participation, an issue that has caused several social conflicts and outbreak of violence around protected and indigenous areas in past years.

In particular, the growth of the mining sector faces environmental risks. As mentioned in previous sections, the mining sector has the potential to contribute significantly as a driver of growth in the

coming decades. However, for this to materialize, the tension between its growth potential and the significant environmental and social challenges needs to be addressed, given that the mining sector is responsible for some of the largest releases of heavy metals into the environment of any industry. It also releases other air pollutants, including sulfur dioxide and nitrogen oxides, and leaves behind tons of waste tailings, slag, and acid drainage. Occupational and environmental exposure to heavy metals, silica, and asbestos can occur during mining operations. The lack of an adequate regulatory framework to regulate safe and sustainable mining permits and of incentives for employment promotion and redistribution schemes remains a key bottleneck keeping the sector from reaching its potential.

Increasing urbanization has not been matched by adequate planning and service-delivery capacity for safe and clean living conditions. A rapidly growing urban population (at a rate of 2.4 percent per year, it is the fifth highest in the region after Guatemala, Haiti, Honduras, and Paraguay), as was discussed in Chapter 4, increases the pressure for adequate urban planning to avoid future problems.<sup>15</sup> Total environmental health costs are estimated at 1.3 percent of GDP per year.<sup>16</sup> In particular, urban air pollution and associated respiratory illnesses and mortality are a growing concern in Panama City, San Miguelito, and other urban centers, with 90 percent of total air pollution resulting from transport emissions from the increasingly large vehicle fleet. The estimated annual costs of mortality and morbidity due to urban air pollution are estimated at 0.7 percent of GDP. There are marked quality differences between fast-developing urban areas and those lagging behind. For instance,

about 400,000 people in urban areas receive water only seven hours per day, wastewater collection is very low in low-income urban areas, and 17 percent of the urban population still has inadequate latrines. The challenge of improving the urban environment is reinforced by the ongoing process of decentralization. Law 37 of 2009 gives increased responsibilities to municipal governments for planning and investment in urban infrastructure. However, the increased responsibilities have not been coupled with adequate capacity building to help municipalities undertake their enhanced roles in planning, budgeting, and implementing sound investment choices. Institutional strengthening of local governments will be critical to ensure that Panama's urbanization follows a sustainable trajectory.

In addition to rural vulnerability to natural disasters, the threat to urban areas from disasters is also increasing. The indigenous *comarcas* Ngäbe Buglé, Emberá-Wounaan, and Guna Yala, and the provinces of Bocas del Toro and Darién show historically significant levels of vulnerability to natural disasters. Those affected in these rural areas are characterized by low incomes, as shown previously, as well as by precarious housing conditions and poor access to basic services (water and sanitation, electricity, etc.). Increasingly, however, urban areas are also seeing more disaster impacts, within a context of a general lack of informed disaster risk management policies and interventions. The Metropolitan Area of Panama, home to 43 percent of the country's population and generating about 68 percent of the GDP, has seen more floods of higher impact in the last decade. More than ten national emergency declarations have been issued since 2005, with serious landslides and flooding affecting

Panama and Colón and estimated losses at over US\$135 million. While Panama's exposure to seismic hazard is not as high as that of neighboring countries, the potential losses

would be huge: a national loss of US\$1,634 million is estimated if Panama were struck today by an earthquake similar to that of July 18, 1934 (magnitude 7.4).

## Notes

1. The Financial Action Task Force on Money Laundering (FATF) is an intergovernmental body established in 1989 by the Ministers of its member jurisdictions and currently includes 36 member countries. The objectives of the Task Force are to set standards and promote effective implementation of legal, regulatory, and operational measures for combating money laundering, terrorist financing, and other related threats to the integrity of the international financial system.
2. See IMF 2014.
3. See <http://www.fatf-gafi.org/topics/fatfgeneral/documents/plenary-outcomes-jun-2014.html>. GAFILAT is a regionally based intergovernmental organization that includes 12 countries from South America, Central America, and North America whose purpose is to combat money laundering and terrorist financing by means of a commitment to continuous improvement of national policies in these areas and to the enhancement of different cooperation mechanisms across its member countries.
4. Kerr 2002.
5. UNODC 2013.
6. Unless otherwise stated, all data of this section are taken from the *Encuesta Nacional de Salud Sexual y Reproductiva* (ENASSER 2009), <http://panama.unfpa.org/novedades/noticias/la-encuesta-nacional-de-salud-sexual-y-reproductiva-de-panama-llena-dos-decadas-de-vacio-de-informacion/35>
7. United States Department of State 2013.
8. LAPOP 2004, 2006, 2008, 2010, and 2012.
9. USG-GOES 2011.
10. World Bank 2011.
11. OHCHR 2014.
12. Berger 2013; Caciques are traditional indigenous leaders.
13. Wrap-around services refer to the coordination of multiple service providers (that is, health, education, social services, law enforcement, civil society, etc.) that respond to the changing needs of youth through the various lifecycle stages. In the United States, a case-worker typically coordinates the provision of such wrap-around services.
14. ACP 2013.
15. Because of pollution from untreated urban wastewater from Panama City, Panama Bay in recent years has reached a critical state of eutrophication with unpleasant odors and bans on consumption of fish from its waters. A first phase of wastewater treatment under the "Sanitizing the Bay" project has contributed to the improvement of hygienic conditions in and around the metropolitan area.
16. World Bank 2008.

## References

- ACP (Autoridad del Canal de Panama). 2013. *Informe anual 2013*.
- Berger, E. 2013. "Panama Indigenous Groups Say Land under Threat." Thomson Reuters Foundation, July 31.
- IMF (International Monetary Fund). 2014. "Panama: Report on Observance of Standards and Codes on the FATF Recommendations for Anti-Money Laundering and Combating the Financing of Terrorism." IMF Country Report 14/55.
- IPCC (International Panel on Climate Change). 2014. *Climate Change 2014: Synthesis Report*. Contribution of Working Groups I, II, and III

- to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Geneva: IPCC.
- Kerr, Richard. 2002. "A Warmer Arctic Means Changes for All." *Science* 297 (5586): 1490–93.
- OHCHR (Office of the United Nations High Commissioner for Human Rights). 2014. "Informe del Relator Especial Sobre los Derechos de los Pueblos Indígenas, James Anaya. Adición: La Situación de los Derechos de los Pueblos Indígenas en Panama." Report A/HRC/27/52/Add.1, United Nations, Geneva.
- United States Department of State. 2013. "Panama 2013 Crime and Safety Report."
- OSCA. <https://www.osac.gov/pages/ContentReportDetails.aspx?cid=14201>.
- UNODC (United Nations Office of Drugs and Crime) 2013. "Statistics Online." <https://stats.unodc.org>.
- USG-GOES. 2011. "Partnership for Growth: El Salvador Constraints Analysis." Millenium Challenge Corporation, Washington, DC.
- World Bank. 2008. *Panama: Country Environmental Analysis*. Washington, DC: World Bank.
- World Bank. 2011. *Panama Poverty Assessment: Translating Growth into Opportunities and Poverty Reduction*. Washington, DC: World Bank.

## 7. Prioritization Linked to Sustainability

### Benchmarking

**SUCCESSFUL CANAL OPERATIONS DEPEND** on the availability of an adequate water supply all year round. The risk of limited water availability in critical months is evident: the peak of Canal traffic coincides with the lowest rainfall period. Droughts such as the one in 2014 threaten Canal operations by limiting the size of ships passing through. At the same time, large storms threaten to flood the Canal's infrastructure, as famously occurred in the unprecedented closure in December 2010 (see box 7.1). The urban expansion west of the Canal towards Capira puts an extra burden on the Gatun Lake while developments to the east impact the Madden Dam buffer capacity. The data in the past decades demonstrates that the incidence of extreme weather events is increasing.

Climate change could lead to increased variability in rainfall, thereby affecting Canal operations. First, climate change may result in changes in rainfall, which according to the recent Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report (IPCC 2014) cites a trend of increasing precipitation over most of Panama. Fabrega et al. (2013) analyzed the projected hydroclimatic patterns for Panama, projecting an increase in precipitation over all four regions of Panama for the 2015–2099 period: Bocas del Toro, Veraguas, Panama Canal, and Darién.<sup>1</sup> Future precipitation appears to increase for all regions by at least five percent, with the exception of some areas of the Bocas del Toro region Fabrega et al. 2013. Increments greater than 15 percent were projected

for the most populated areas in Panama located next to the Canal. However, another predicted change is that of higher variability, including increased occurrence of extreme weather events. Overall, climate change-induced weather extremes could lead to costly delays that would actually make the Canal a less efficient shipping route.

In addition, adequate water management underlies the country's ability to generate hydropower for different uses. Hydropower generation is the most water-intensive sector in Panama, utilizing 50,000 cubic hectometers per year to operate.<sup>2</sup> During several recent extended dry seasons causing low water levels at hydroelectric dams, the metropolitan areas suffered from electricity rationing and had to import the equivalent of a month of energy usage for 100,000 families from the Central American Electrical Interconnection System.<sup>3</sup> The growing economy—and related rise in demand for hydropower—creates limitations on hydropower investments in specific areas. This increases the need to safeguard available opportunities, such as in the Bocas del Toro region where rainfall patterns are not predicted to increase much, and ensure that the upstream watersheds remain healthy.

Sustaining Panama's forest, biodiversity, and coastal resources is also critical for tourism and rural livelihoods. Tourism is a growing industry in Panama, which in 2010 consumed 1.3 cubic hectometers of water. Many of the large tourist resorts on the Pacific coast rely on groundwater resources. In 2013, tourists spent approximately US\$4.5 billion in Panama, much of it linked



### BOX 7.1 La Purisima

In December 2010, Panama experienced the longest rainstorm in the history of the Canal. *La Purisima*—so named because it took place near the day of the Immaculate Conception, December 8—posted a record 760 millimeters of rainfall in 24 hours. The intense rain led to 500 landslides that impacted approximately 9,000 people and caused a surge in turbidity of the water source to 700 NTU, causing the principal potable water plant for Panama City to collapse. As a result, parts of Panama City were left without water for 50 days. Canal operations were stalled for 17 hours; and for the fourth time in its history, the *Autoridad del Canal de Panama* (ACP) had to open the lock drains to lower water levels. In addition, the company charged with operating the Bayano Dam had to open its gates because the basin nearly reached its maximum capacity. This action resulted in the flooding of the town of El Llano in Chepo. Residents had to be evacuated and lost approximately US\$6 million in agricultural production and household structures. The total cost of *La Purisima* was estimated at US\$150 million.

Source: Espinosa 2010.

to the forest, biodiversity, and coastal resources that attract increasing numbers every year. The amount of water needed to sustain the health of Panama's ecosystems is yet unknown. The National Environmental Authority (ANAM) has established the necessary amount of water for ecological protection at 10 percent of overall water flow in basins when granting water resource concessions, but recognizes that this number does not represent the amount of water necessary for conservation.<sup>4</sup> Although agriculture consumes much less water and plays a smaller role in the economy (three percent of gross domestic product [GDP]), the livelihood of the rural poor depends upon it and subsistence farmers have far fewer coping mechanisms in the face of extreme weather and climate events. The National Plan for the Integrated Management of Water Resources (2010–2030) identifies

the main contamination source in Panama as the direct discharge of sewage into water bodies without prior or sufficient treatment. The second main contamination source identified is the dumping of solid waste into water bodies. This is followed by diffuse contamination from agriculture (pesticide and fertilizer runoff) and detergent use in cities. Finally, deforestation is also listed as a source of contamination as erosion causes sedimentation and high turbidity levels on water bodies.

### Priority Area

**GIVEN ITS CENTRAL ROLE** in the economic engine of Panama, as well as being a key component for other growth sectors and the livelihoods of the poor, adequate water resources management emerges as the key priority area under sustainability.

In Panama, there are two worlds of water resources management: the Panama Canal watershed and the rest of the territory. The ACP has a strong monitoring and management program for its water sources, watersheds, and forestry resources to ensure the continuity and sustainability of water supply for Canal operations. This includes hydraulic and water quality monitoring, as well as strict land use planning, community-based forest conservation, and sustainable resource use programs in the Canal's watershed. In contrast, the remaining 95 percent of the country's watersheds fall under the authority of ANAM, where the capacity and resources to implement and enforce the National Plan for the Integrated Management of Water Resources (2010–2030) are more limited.

Comparison of results from water management efforts shows stark differences. The ACP is fully responsible for the conservation and management of the Panama Canal Watershed (PCW), supported by an interinstitutional commission. On the other hand, ANAM's responsibility for watershed management overlaps with several other institutions, such as the Ministry of Health (MINSA) and the National Water Supply and Sanitation Administration (IDAAN). Over the last two decades, systematic monitoring of the PCW has included vegetation cover, hydrological conditions, water quality, and social aspects related to land use and settlement. Water quality in PCW ranks good to excellent. In contrast, ANAM carries out water balances at only ten watersheds and 95 rivers. Of those monitored, 34 percent are classified as contaminated or slightly contaminated. Only four watersheds have management plans, and only one has an implementation strategy. In terms of

concrete results, the ACP was able to reforest and maintain more than 6,200 hectares in the PCW, compared to only 300 hectares around the targeted watersheds in the rest of the country. In its conservation efforts, the ACP has involved and helped over 3,500 producers and residents to receive land titles, and engaged over 6,000 residents and producers in training programs related to sustainable management and production systems. Finally, forecasting and modeling climate change impacts is a central component of the design of new investments in and around the Canal. In contrast, only limited information and small-scale adaptation and mitigation programs have been undertaken by ANAM in selected dry areas. Appendix E provides a detailed comparison of the two management models and associated program results.

## Identified Opportunities

**IMPLEMENTING INTEGRATED WATER RESOURCES MANAGEMENT PLANS** in priority basins can provide a gradual expansion of the successful model outside the Canal watershed. Rather than focusing on revising the legal framework for water resources management (which could prove to be a lengthy process), the country could embark on a prioritized program to improve the management plans and implementation capacity in selected priority watersheds. The development of river basin-based plans would benefit from the successful experience of the PCW, including through sharing of knowledge and expertise across the two institutions, and would help build ANAM's institutional capacity to gradually expand its coverage.



Scaling up integrated disaster-risk planning coupled with long-term climate change adaptation measures is critical to enhance Panama's future resilience capacity. ANAM is working on small-scale climate change adaptation and mitigation measures, which should be scaled up to better prepare vulnerable groups and sectors for higher rainfall and longer dry seasons. To achieve this, there is a need to better integrate national disaster-risk management into water resource management planning in priority basins. Enhanced information and decision support capacity across key sectors—along with improved early warning and monitoring systems—is required to forecast and plan for a future in which the occurrence of extreme events could be the new norm. A detailed description of these opportunities in the water sector is also included in Appendix C.

## Filling Knowledge Gaps

**THE HYDROGEOLOGICAL SITUATION** of the country is not well known. Investing in a better understanding of the water resource base is a priority in the short to medium term. Panama's National Plan for Integrated Water Resources Management (2010-2030)

indicates that the number of water-use concessions have increased from 350 in 2004 to 952 in 2010, which is only a portion of the actual number of users. About 34 percent of the available water is classified as contaminated or slightly contaminated. Water use conflicts occur frequently among users of the same water source, with limited government capacity to manage and monitor water use. At the same time, economic incentives and instruments to adequately value and manage water allocations are nonexistent in Panama, monitoring capacity is limited, and the legal and regulatory framework is outdated. ANAM could be supported in developing a better understanding of water availability, especially of groundwater. ANAM estimated that 235,000 people, many of whom live in rural areas, rely on groundwater for domestic and agricultural uses; but the country currently has limited knowledge on the quantity and quality of groundwater.<sup>5</sup> ANAM collects water balances at only ten watersheds and does not have a full picture of the current water demand, making it difficult to establish a fair price for the ecological value of water. Filling this knowledge gap is considered a priority over the short to medium term.

## Notes

1. Fábrega et al. 2013. Using the MRI AGCM3.1 (Atmospheric Global Circulation Model) under the SRES A1B scenario.
2. ANAM 2011.

3. See note 2, above.
4. See note 2, above.
5. See note 2, above.

## References

ANAM (Autoridad Nacional del Ambiente). 2011. *Plan Nacional de Gestión Integrada de Recursos Hídricos de la República de Panama: 2010–2030*.

Espinosa, Jorge A. 2010. "Gestión del Agua en el Canal de Panama Durante la Inundación Extrema en Diciembre de 2010." *Division del Agua, Autoridad*

*del Canal de Panama*; Paez, Aristides Cajar. “La Madre de las Lluvias.” *La Prensa* 141142.  
Fabrega, J., T. Nakaegawa, R. Pinzon, K. Nakayama, and O. Arakawa. 2013. “Hydroclimate Projections for Panama in the Late 21st century.” *Hydrological Research Letters* 7 (2): 23–29.

IPCC (International Panel on Climate Change).  
2014. *Climate Change 2014: Synthesis Report*. Contribution of Working Groups I, II, and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Geneva: IPCC.



## 8. Conclusion

**THE ANALYSIS IDENTIFIES FIVE POLICY PRIORITIES** that Panama may consider in order to continue its recent track record on growth, poverty reduction, and shared prosperity. Near-term growth prospects for Panama are good, with projections for 2014–2019 at about six percent based on sustaining high levels of investment. A number of potential impediments are emerging, however, and could slow growth over the medium to long term if left unaddressed. First, infrastructure, specifically energy, is creating bottlenecks to growth. Second, weaknesses in education—including high dropout rates from secondary education—and a shortage of skilled labor may be limiting growth. Third, weak public sector institutions may slow growth, particularly if challenges of transparency, pockets of low efficiency, and weaknesses in the regulatory framework remain unaddressed. In terms of building an inclusive society, the analysis shows that the indigenous have benefited least from Panama's excellent growth performance. Therefore, addressing the challenge of their inclusion has been identified as a fourth priority area. Finally, water management has emerged as the fifth priority area. Because climate change could lead to increased variability in rainfall, careful water management is necessary to sustain the successful operation of the Panama Canal as a major pillar of economic activity.<sup>1</sup>

These five priority areas are even more relevant when we take into account the valuable synergies among them. The analysis

in this document has been framed around three questions. What is the nature of growth? How inclusive is that growth? And how sustainable is that growth? It is clear that each priority area affects the others. Some simple examples illustrate this point.

Infrastructure with a focus on energy has emerged as a priority area for economic growth and is also highly relevant to inclusion and the sustainability of the development model. As described in the inclusion chapter, the limited access of the indigenous population to electricity and basic services is a barrier to their economic growth. Addressing the country's energy deficit will help remove this barrier and facilitate productive activities and human capital investments. At the same time, appropriately addressing energy shortages can improve fiscal and environmental sustainability.

The opportunities identified to improve education and skills will also lead to advancement on multiple fronts: a more highly skilled workforce; stronger economic sectors, including energy and water management; and greater social inclusion. Strengthening the monitoring and evaluation of education with the goal of improving the quality could help identify institutional weaknesses in the education sector. Knowing in which parts of the country pupils are doing well and crossing administrative data with outcome data can deliver useful insights in this context. With stronger and targeted technical education, better-prepared graduates will be available for the labor market.

This will lead to a skilled workforce available to work in the water management and energy sectors. The Panama Canal Authority (ACP) hires highly educated individuals and is one of the most efficient organizations of the country. A stronger workforce in the energy sector could lead to a growth impulse in the long run that could generate even more energy demand and reinforce the need for action in this sector. At the same time, closing the education gap between the poor and non-poor by providing opportunities to rural and indigenous Panamanians is highly relevant to inclusion. Given the particularly high dropout rates in indigenous areas, the increased payments of the conditional cash transfer program *Beca Universal* could make a difference. However, in this context, it is important to understand the parameters for the high dropout rates in those areas.

The opportunities identified under the institution priority area provide other clear examples of complementarity: institutional capacity clearly affects growth, inclusion, and sustainability. An improvement in public sector management, be it through performance-based budgeting or enhanced fiscal management, will free resources that could be spent on other areas, including education or Indigenous Peoples. In addition, greater transparency will also lead to a more efficient allocation of public resources. In terms of improving the regulatory framework, adopting a modern mining regulatory framework to promote adequate oversight, benefit sharing and environmental and social sustainability is one of the likely necessary conditions to begin conversations with Indigenous Peoples on developing this industry in *comarcas*. Enforcing consistent social and environmental safeguards

regulations and standards across sectors obviously will have an important and positive impact on water management.

A final example of complementarities is seen within the Indigenous Peoples priority area. Although the focus on indigenous groups arose from the assessment of inclusion, facilitating the contribution of these groups to economic activity in line with their cultural values would contribute to national growth and sustainable development. Increasing the pertinence of health and education services in indigenous communities could help reduce high dropout rates in there. Supporting economic development while respecting cultural identity—especially in relation to payments for environmental services and robust benefit-sharing arrangements—certainly create complementarities with water management and the institutional framework. Sectors like mining and tourism may be able to generate higher growth if Panama becomes a more inclusive society. The strengthening and formalizing of Indigenous Peoples' participation in government decisions and processes has potential positive effects on all the other priority areas.

In summary, Panama has been a success story in most regards and, by addressing the identified priority areas, is likely to sustain this success. There are, of course, risks—including, for example, the global economic environment, rising interest rates, and climate change. There is also the risk that Panamanians could be unable to reach the consensus to move on the priority areas. The country has proven, however, to be resilient during recent crises, and the analysis in this report suggests that Panama has the building blocks for locking in success.

## Note

1. The priority areas of infrastructure with a focus on energy; education and skills; and institutions, including transparency, efficiency, and the regulatory framework are discussed in detail in

Chapter 3. The priority area of indigenous populations is discussed in detail in Chapter 5. The priority area of water management is discussed in detail in Chapter 7.



# Appendix A: Definition of Peer Countries

**IN ORDER TO COMPARE PANAMA'S PERFORMANCE** and structural features, the team selected six comparable groups of peers: (i) Central American countries, (ii) Latin American peers, (iii) upper-middle-income countries, (iv) the world, (v) structural peers, and (vi) aspirational peers. Structural and aspirational peers were identified using the “Find my friends” tool, which is based mainly on the World Economic Outlook database.<sup>1</sup>

## Structural Peers

**UNDER THIS CLASSIFICATION**, countries with similar characteristics to Panama were aggregated, using the following criteria for the period 2001–2013:

- Population between one million and 12 million
- Not landlocked
- Not a fragile state
- Gross domestic product (GDP) per capita between US\$4,000 and US\$13,000
- Foreign Direct investment as a share of GDP higher than 3.5 percent
- Credit rating higher than BBB-

This classification delivers the following group of countries (table A.1).

## Aspirational Peers

**THIS CLASSIFICATION INCLUDES COUNTRIES** that provide good examples of development for Panama. These countries were aggregated using the following criteria for the period 2001–2013:

- GDP per capita higher than US\$8,000
- GDP growth higher than 3.5 percent
- Inflation below 4.5 percent
- Investment to GDP higher than 20 percent
- Noncommodity exporter
- Not landlocked

This classification delivers the following group of countries (table A.2).

## Other Peers

**THE OTHER FOUR COMPARABLE** groups—Central America, LAC, upper middle income, and the world—were obtained directly through the “Find my friends” tool.

**TABLE A.1 Panama's Structural Peers**

Structural peers	Population (million)	GDP per capita	Direct investment	Credit rating
Bulgaria	7.20	4975	10.3	BBB
Costa Rica	4.86	6438	4.6	BB
Croatia	4.28	11542	3.9	BB+
Dominican Republic	10.60	4228	4.0	B+
Panama	3.79	6407	7.8	BBB
Uruguay	3.40	8566	4.6	BBB-

Note: GDP per capita (in US\$) and foreign direct investment (percentage points of GDP).



**TABLE A.2 Panama's Aspirational Peers**

Aspirational peers	GDP per capita	GDP growth	Inflation	Investment to GDP
Hong Kong SAR, China	29,810	3.9	1.4	22.4
Estonia	12,702	4.0	4.3	28.2
Korea	18,145	3.9	3.0	28.4
Lithuania	10,089	4.6	3.0	21.0
Panama	6,407	7.2	3.2	21.5
Singapore	36,840	5.4	2.2	24.3
Taiwan, China	16,796	3.6	1.0	20.8
United Arab Emirates	38,693	4.1	4.4	21.9

**Note:** GDP per capita (in US\$), GDP growth (percent change), inflation (percent change, CPI), and investment (percentage points of GDP).

## Note

1. World Economic Outlook (WEO) indicators (database), <https://www.imf.org/external/pubs/ft/weo/2014/01/weodata/index.aspx>.

## Appendix B: Matrixes of Identified Opportunities

## ENERGY

OPPORTUNITY NAME	Managing (reducing) national energy demand	Modernizing (coordinating/streamlining) the institutional framework in energy	Increasing power generation via renewables and other clean energy options	Increasing domestic transmission and cross-border transmission	Improving rural energy services
IMPACT ON TWIN GOALS	Reduces the need for new production and transmission lines, freeing up resources for social spending; reduces environmental and social implications, reduces brownouts and rolling blackouts, favoring business and protecting jobs and labor earnings	Contributes to greater sustainability of the energy sector, and therefore increased competitiveness; could improve energy efficiency, reducing costs to government; improves quality of service delivery and expands access to electricity among the poor	Lowers costs to government and frees up resources for social spending; increases private sector investment; reduces local and global environmental emissions; improves reliability of the power system	Enables increased access to lower-cost generation, therefore reducing government expenditures and freeing up resources for social spending; increases reliability in energy delivery; increases private sector investment	Provides services to communities with no electricity; affects health care services delivery; improves respiratory health as people move away from reliance on wood for cooking; improves delivery of educational services; creates opportunities for rural business development and investment through providing a supply of energy, insuring communications
TIME HORIZON	Short term	Short to medium term	Medium to long term	Medium term	Medium to long term
COMPLEMENTARITIES	Reducing government subsidies could free up resources for improving basic and social services	Provides opportunity to address framework for dealing with environmental and social issues (serving other similar sectors)	Reducing government subsidies could free up resources for improving basic/social services	Reducing government subsidies could free up resources for improving basic and social services	Increased access to basic infrastructure in rural communities contributes to rural commerce and agricultural opportunities that can help limit impacts associated with urbanization
EVIDENCE-BASED	A strict national demand reduction program in Brazil (2001–2002) successfully led to 20 percent reduction in demand, avoiding brownouts and blackouts.	Effective governance—institutions, policies, and regulations—creating the conditions for markets, including attracting investments and transparent competition,	High confidence as evidenced by increased expenditures of the government through subsidies brought on by increased reliance on high-cost emergency	Moderately confident. Relationship between improved transmission and interconnection reduces dependence on high-cost emergency power stations. In Brazil,	Evidence regarding lack of electricity coverage in rural areas and <i>comarcas</i> is strong and shows the lack of economic development. Global evidence suggests social

OPPORTUNITY NAME	Managing (reducing) national energy demand	Modernizing (coordinating/streamlining) the institutional framework in energy	Increasing power generation via renewables and other clean energy options	Increasing domestic transmission and cross-border transmission	Improving rural energy services
	Also, UK BIT studies have shown impact using behavioral economics; Davis, Fuchs, and Gertler 2014 showed that energy-inefficient appliance buybacks in Mexico were an expensive way to do this; energy crises in Brazil and other countries have been effectively mitigated through a reduction in consumption, thereby avoiding excess dependence on expensive emergency power generation	contributes to economic growth and access. (World Development Report 2002: <i>Building Institutions for Markets</i> , <a href="https://openknowledge.worldbank.org/handle/10986/5984">https://openknowledge.worldbank.org/handle/10986/5984</a> )	power stations. Renewable energy systems, including utility-scale wind and solar photovoltaics and natural gas power, have lower levelized costs than oil fired power generation (European Commission report, <a href="http://ec.europa.eu/energy/studies/doc/20141013_subsidies_costs_eu_energy.pdf">http://ec.europa.eu/energy/studies/doc/20141013_subsidies_costs_eu_energy.pdf</a> )	expanded transmission systems enabled rapid development of alternative power generation sources including wind, solar, and biomass; resulting in diversified energy portfolio with greater energy security and lower long-term levelized costs.	and economic benefits of electrification including in Brazil, China, India, Mexico, and South Africa. ( <a href="http://www.iea.org/publications/freepublications/publication/rural_elect.pdf">http://www.iea.org/publications/freepublications/publication/rural_elect.pdf</a> )
POLITICAL FEASIBILITY	Reduces wasteful energy consumption resulting from a shared community response leads to lower energy related expenditures, thereby freeing resources for other spending	Transparent and effective coordination among energy institutions contributes to greater confidence among consumers and investors	Affects the budget and thus puts this activity in conflict with other sectoral priorities; environmental and social issues as new generation could cause pollution and or use lands that are in indigenous areas or of importance for biodiversity	Affects the budget and thus puts this activity in conflict with other sectoral priorities; environmental and social issues as new transmission lines will cross national parks, biodiversity areas, and lands of Indigenous Peoples	Contributes to strengthened relationships with rural and indigenous communities
ESSENTIAL PRECONDITIONS	Yes. Offers least cost option to reduce energy prices thereby enabling increased access and supporting business and industrial growth and ultimately economic development	Yes. Key factor enabling investments in other aspects, including generation, transmission, efficiency, and access	Yes. Reliable cost-effective electricity is essential to power industry and commerce, which enable economic development	Yes. Reliable cost-effective electricity is essential to power industry and commerce, which enable economic development	Yes. Access to modern energy services is an essential precondition for basic services including lighting, refrigeration, cooking, and health care

## EDUCATION/SKILLS

OPPORTUNITY NAME	Strengthening targeted public and private technical education to better respond to labor market demands	Strengthening monitoring and evaluation of education with goal of improving quality	Increasing payments of the CCT program <i>Beca Universal</i> differentiated by student grade level (three cycles) to address high dropout rates in secondary education
IMPACT ON TWIN GOALS	Increases employment opportunities for youth and increases income generation	Improves indirectly the quality of the education system and labor skills	Increases job opportunities for youth; reduces poverty
TIME HORIZON	Short to medium: introduction of vocational training and bilingual education; revision of high school certificates Medium to long: impact on labor market outcomes	Short term: participation in 2015 PISA testing; analysis of high school dropouts with existing administrative data Long term: establishment and application of monitoring and evaluation framework	Short to medium term
COMPLEMENTARITIES	Increases investment attractiveness and virtuous cycle of jobs creation; enhances competitiveness productivity	Attracts investment in education	Enhances social assistance for poor
EVIDENCE-BASED	Good results in other countries such as France and Germany; failure of traditional education system to prepare youth; Mejores Empleos en Panama: El Rol del Capital Humano (World Bank 2012), Technical Vocational Education and Training—Mapping Institutions and Policies (World Bank 2014)	Countries that participate in PISA have evidence of the quality of their education system	School Subsidies for the Poor: Evaluating the Mexican Progresá Program (Schultz 2004); The Impact of the <i>Bolsa Escolar/Familia</i> CCT Program on Enrollment, Dropout Rates and Grade Promotion in Brazil (Glewwe and Kassouf 2012)
POLITICAL FEASIBILITY	Market open for private services provision	The country didn't participate in the last round	Government has taken first steps
ESSENTIAL PRECONDITIONS	Included in government's priority programs	Link CCT beneficiaries to productive training	Included in government's priority programs

## PUBLIC SECTOR INSTITUTIONS: TRANSPARENCY

OPPORTUNITY NAME	Meeting Global Forum standards on tax and financial information sharing (OECD gray list)	Improving public procurement practices
IMPACT ON TWIN GOALS	Mitigates reputational risks to avoid potential declines in foreign deposits, insurance premiums, and activities related to legal and accounting services; improving transparency and meeting international standards will help Panama ensure the continued high levels of FDI it depends on (in the absence of a developed stock market); continued poverty reduction and shared prosperity depends critically strong levels of FDI, especially in the short term.	Increases accountability and transparency and reduces transaction costs; improving the public procurement practices will improve the monitoring and evaluation of public investment and spending, improving the efficiency of public spending, thereby freeing up resources for strengthening social assistance programs that help move people out of poverty in both the present and the future (in the latter by breaking the cycle of poverty: <i>Red de Oportunidades</i> )
TIME HORIZON	Short: changes in regulations and procedures Medium: a more complete revamping of the information sharing system	Medium to long: improvements of existing regulations to better accommodate public investment projects
COMPLEMENTARITIES	Improving Panama's standings in the international community can have spillover effects on major infrastructure projects due to the link to the continued presence of high levels of FDI in the country (of particular importance is for the energy sector where resolving transmission line and generation shortages will require strong investments)	Improving the public procurement system can increase the quality of services delivery, enhancing the inputs to the services, affecting the timeliness of the procurement process itself, and lowering costs.
EVIDENCE-BASED	There is evidence from OECD countries, but the potential impacts for Panama need to be assessed	Evidence from other countries including Peru and Argentina; Panama: Enhanced Public Sector Efficiency Technical Assistance Project, Report No. 59159-PA
POLITICAL FEASIBILITY	Some movement on this front but it is unclear that the political will needed to push this agenda forward is in place.	Substantial work done to date by the government; country has moved to the use of framework agreements, thereby complying with Law 22 of 2006 (although the complex infrastructure projects of the recent years have highlighted weaknesses in these agreements) and generating savings in time, price and transaction costs; an e-procurement platform, PanamaCompra, has been integrated with other systems (DGI and Ministry of Industry and Commerce); substantial agenda needed to shift more purchases to the PanamaCompra system
ESSENTIAL PRECONDITIONS	Yes	Commitment of the Minister of Finance and <i>Secretaría de Presidencia</i> ; Technical cooperation across government entities

## PUBLIC SECTOR INSTITUTIONS: EFFICIENCY OF PUBLIC SECTOR MANAGEMENT

OPPORTUNITY NAME	Introducing performance-informed budgeting (PIB) accompanied by better coordination between different government plans and entities	Developing effective municipal (and metropolitan) institutions needed for decentralization and transfer of governmental functions	Improving fiscal management, including the modernization of financial planning, debt management, and fiscal risk from disasters
IMPACT ON TWIN GOALS	Allows for strategic allocation of resources to policy priorities, thus facilitating focus on achievement of results on better services to citizens' special programs for disadvantaged, etc.; allows for defining priorities among competing policies and taking into account impact of programs on each other	Enhances efficiency of spending toward high-priority economic and poverty reduction programs; supports service provision to and economic planning for marginalized communities and rural and remote areas, and competitiveness of urban economic agglomerations	Frees up fiscal resources for priority service delivery and social protection programs with direct impact on the poor
TIME HORIZON	Medium: developing and implementing a PIB approach in the MEF and line ministries Long: better alignment of government expenditure (both operational and investment) with policy goals	Short: implementation of Law 37 of 2009 Medium: capacity building under new framework and design of metropolitan coordination structures	Short: introduction of financial planning information technology tool, measures to increase liquidity in the domestic debt market, and formulation of a strategic plan for fiscal risk management of disasters Medium: full-fledged modernization of financial planning and implementation of improved fiscal management practices
COMPLEMENTARITIES	Better management of government programs and stronger accountability of public administration for results; better coordination helps reduce inefficiency in resource allocation, and avoid duplication of functions and activities across the government; effective coordination facilitates coherence and transparency within the government	Rural and local services in water supply and sanitation, education, and economic opportunities for Indigenous Peoples	Improved transparency, increased resilience, and improved public procurement; more resources available for priority social programs and services
EVIDENCE-BASED	Performance-informed budgeting has been implemented in the majority of OECD countries through program budgeting approach; advanced OECD countries provide multiple examples of central coordination systems for design,	Successful local municipal development programs implemented in countries such as Chile, Colombia, Indonesia, or Tunisia demonstrate the improvement in planning, investment financing, service delivery,	IMF Article IV (IMF 2014) Panama—Disaster Risk Management Development Policy Loan with a Catastrophe Deferred Drawdown Option No. 60719 (WB 2011); Non Lending

OPPORTUNITY NAME	Introducing performance-informed budgeting (PIB) accompanied by better coordination between different government plans and entities	Developing effective municipal (and metropolitan) institutions needed for decentralization and transfer of governmental functions	Improving fiscal management, including the modernization of financial planning, debt management, and fiscal risk from disasters
	implementation and monitoring, implementation of important government policies (Canada and United Kingdom); emerging economies have improved performance through better coordination (Brazil, Chile, Colombia, Costa Rica, Lithuania, etc.)	citizen engagement, and central government oversight	Technical Assistance on Debt Management (WB NLTA 2010); Public Debt Markets in Central America, Panama and the Dominican Republic (IMF 2007)
POLITICAL FEASIBILITY	Strong commitment to better management of government programs on the part of MEF ( <i>Dirección de Políticas Públicas</i> , <i>Dirección de Programación de Inversiones</i> ); DIPRENA declared its commitment to the objective but requires substantial capacity building	High	High
ESSENTIAL PRECONDITIONS	Yes	Yes	Yes



## PUBLIC SECTOR INSTITUTIONS: ADEQUACY OF REGULATORY FRAMEWORK

OPPORTUNITY NAME	Adopting modern mining regulatory framework to promote adequate oversight, benefit sharing, and environmental and social sustainability	Enforcing consistent social and environmental safeguards, regulation, and standards across sectors	Strengthening financial sector regulation
IMPACT ON TWIN GOALS	Contributes a potential share of GDP up to 10 percent; contributes to budget through royalties and concessions; adequate benefit sharing toward bottom 40 percent	Ensures sustainability of present investments and adequacy of natural resource base for future growth; safeguards the rights of marginalized groups and reduces social conflict	Ensures resilience of financial sector to a range of potential shocks; supports sustainable expansion of financial services to excluded populations
TIME HORIZON	Short: investment opportunities Medium: coherent framework and institutional structure	Short to Medium	Medium
COMPLEMENTARITIES	FDI, fiscal, growth, export, environment, social inclusion, particularly of Indigenous Peoples	Direct link to infrastructure, territorial planning, and extractive sectors; resilience to natural disasters; support for FDI	Links to fiscal, growth, infrastructure finance, and social inclusion
EVIDENCE-BASED	Stanley, M., and E Mikhaylova. "Mineral Resource Tenders and Mining Infrastructure Projects Guiding Principles," Extractive Industries for Development Series #22, September 2011	EPA/ OECD/ WB models for environmental-impact assessment and social safeguard policies in large transport, hydropower, mining industry, and coastal developments demonstrate mitigation of risk	Sound financial systems bolster sustainable growth
POLITICAL FEASIBILITY	Ongoing dialogue with civil society (mesa rotonda) brought 54 agreements, but concerns need to be addressed under strong political championship	Medium. ACP model for Canal related infrastructure can serve as model	Medium: Political will uncertain
ESSENTIAL PRECONDITIONS	Yes	Yes	Yes

## INDIGENOUS PEOPLES

OPPORTUNITY NAME	Increasing the quality, access, and cultural pertinence of health and education services in indigenous communities (within and outside <i>comarcas</i> )	Supporting economic development with respect for cultural identity especially in relation to traditional agriculture; payments for environmental services; robust benefit sharing arrangements; and sustainable tourism	Strengthening and formalizing Indigenous Peoples' participation in government decisions and processes that concern them
IMPACT ON TWIN GOALS	Increases access and health service delivery: (i) food and nutrition and (ii) maternal and child health with high quality and cultural pertinence; increases multicultural education; revitalizes Indigenous Peoples' cultures; reduces catastrophic health expenditures	Increases potential for income generation for both extreme poor and poor, especially if specific focus on women is included	Improves effectiveness and cultural pertinence of investments with Indigenous Peoples while improving indigenous women's agency; should contribute to reducing poverty and increasing shared prosperity
TIME HORIZON	Short: access Medium: quality Long: cultural pertinence	Medium to long	Short: laws Medium: capacity
COMPLEMENTARITIES	<ul style="list-style-type: none"> <li>• Social protection (conditional cash transfers, school scholarship program)</li> <li>• Water &amp; sanitation</li> <li>• Infrastructure (access to)</li> <li>• Youth leadership</li> <li>• Crime prevention</li> <li>• Performance-based budget for health: catastrophic insurance and social protection (conditional for the Indigenous Peoples)</li> <li>• Monitoring water and epidemiology</li> <li>• Gender-specific interventions</li> </ul>	Empower Indigenous Peoples resources owners as partners in national development and competitiveness	National energy and resource needs: create a platform to build trust and work strategically with Indigenous Peoples on projects of national importance by officially recognizing their territorial authorities and providing an opportunity for their direct engagement in the planning and implementation of policies, programs, and projects that affect/benefit their communities; better management of NRM; youth leadership; reduce social conflict; increase social cohesion
EVIDENCE-BASED	Health: The IP Development Plan cites an 2010 IDB study, breaking down the factors that have affected indigenous peoples access to health: 11.3% did not demand health services due to their cost; 64.2% due to the long distances to a health center; 44% due to lack of transportation, as well as having felt mistreated by the health staff and low participation in program design. Moreover, cultural differences and language limitations limit health education.	Australia, Canada, Norway, Peru, and the United States (Alaska) <b>Programa para el Desarrollo Empresarial Indígena:</b> While there has not been a comprehensive evaluation of outcomes, the program supported several indigenous cooperatives and companies to develop, improve, and	Government to IP Results internationally Bolivia, Brazil, and Canada Present indicators of poverty in IP areas demonstrate lack of effectiveness in investments  Baseline investment data in IP territories.

table continues next page

OPPORTUNITY NAME	Increasing the quality, access, and cultural pertinence of health and education services in indigenous communities (within and outside <i>comarcas</i> )	Supporting economic development with respect for cultural identity especially in relation to traditional agriculture; payments for environmental services; robust benefit sharing arrangements; and sustainable tourism	Strengthening and formalizing Indigenous Peoples' participation in government decisions and processes that concern them
POLITICAL FEASIBILITY	<p>Only 20 percent of the population has health insurance, compared to 50 percent of the nonindigenous population. Generally the study concludes that the IP population generally does not use health services when they are sick or injured." Reference: <i>Plan Nacional de Desarrollo Integral de los Pueblos Indígenas en Panama</i> citing, BID. <i>Inclusión Social en Panama: La población indígena</i>. Julio 2010. P. 21</p> <p>Education: The Plan cites a Save the Children study on school dropout rates by age group. Only 65 percent of Ngäbe and Buglé children between six and 12 years old attend school, regardless of where they live; 43 percent for children between ages 13 and 19 and 7.5 percent for youth between ages 20 and 24.</p> <p>Health: Resuelto N° 4376 del 25 de agosto de 1999, Ministerio de Salud, Medicina Tradicional, <i>Gaceta Oficial</i> N° 23,880, 7 de septiembre de 1999</p> <p>The Ministry of Health has created a unit dedicated to designing culturally pertinent indigenous health public policy.</p> <p>Education: Passage of 2010 Bilingual and Intercultural education Law No. 88</p> <p>The Ministry of Education's "Muevate por Panama" literacy program has provided literacy training to over 20,000 people in the <i>comarcas</i> between 2007 and 2012.</p>	<p>commercialize their products (coffee, forestry, cacao, honey, handicrafts, etc.). Video available online.</p> <p>Costa Rica, PES = US\$3 million per year to IP communities for 10 years + new anteproyecto de ley to regulate Payments for Environmental Services (appears to currently be in the Assembly) presented in Aug. 2014</p> <p>Politically feasible to start with entrepreneurial, tourism, and PES activities. Government and IP championing through IP national development plan.</p> <p>High levels of mistrust (Martinelli environmental law reform), internal conflict (Naso King), and historical lack of sharing in benefits of hydro and other extractive industries (Bayano), would make extractives and benefit sharing a more difficult long-term goal.</p>	<p>Recommend review of results from the multisectoral program financed by IDB in Panama in Darién</p> <p>Yes. IP intersectoral plan, proposed by IP authorities to government after two-year internal consultations with government participation.</p> <p>IP mesa 12 congresses united</p>

OPPORTUNITY NAME	Increasing the quality, access, and cultural pertinence of health and education services in indigenous communities (within and outside <i>comarcas</i> )	Supporting economic development with respect for cultural identity especially in relation to traditional agriculture; payments for environmental services; robust benefit sharing arrangements; and sustainable tourism	Strengthening and formalizing Indigenous Peoples' participation in government decisions and processes that concern them
ESSENTIAL PRECONDITIONS	<p>Health:</p> <ul style="list-style-type: none"> <li>• investment in health infrastructure</li> <li>• supply of needed medicines</li> <li>• bilingual medical staff</li> <li>• support for the practice traditional medicine (practiced by traditional healers and midwives)</li> </ul> <p>Education:</p> <ul style="list-style-type: none"> <li>• implementation of Law 88 by investing state funds, instead of exclusively international grant money</li> <li>• staffing schools in indigenous areas (incl. <i>comarcas</i>) with teachers who are fluent in the pertinent language and who will allow and encourage speaking the native language</li> <li>• specialized curricula</li> <li>• textbooks in indigenous languages</li> <li>• continuous teacher attendance in schools</li> <li>• increased teacher commitment to teach in indigenous schools</li> <li>• increased accountability of teachers towards parents and students (currently teachers register high absenteeism)</li> <li>• principals who foster interculturality instead of prohibiting it</li> </ul>	<ul style="list-style-type: none"> <li>• Baseline mapping of overlap of IPs and key national watersheds or protected areas (to make argument of environmental services being provided)</li> <li>• Close infrastructure and access to financing gaps (especially in transport, WSS, electricity, and productive infrastructure)</li> <li>• Environment of trust</li> <li>• Governance framework effective</li> <li>• Land tenure security</li> <li>• Carried out as part of National Development Plan for IPs with significant participation of IP authorities in design and implementation</li> </ul>	<ul style="list-style-type: none"> <li>• Law projects approved</li> <li>• New institutions have clear mandate and budget, and support to build capacity</li> <li>• IP National Development Plan moving towards implementation</li> <li>• Implementation of Law 72 to finalize pending collective land titling through IP Land Titling Directorate (part of ANATI ) formed in 2010</li> </ul>

## WATER

OPPORTUNITY NAME	Implementing integrated water resources management plans in selected priority basins outside Canal watershed	Scaling up integrated disaster risk planning coupled with climate adaptation measures	Reducing pollution by improving sewerage treatment capacity and access to quality sanitation services	Streamlining regulatory and institutional functions across water sector agencies
IMPACT ON TWIN GOALS	Contributes to economic growth (hydro production, tourism, agriculture)	Reduces income losses from natural disasters; enhances the coping mechanisms and diversifies the economic base for the most vulnerable groups	Sanitation: increases welfare and health Waste (bottom 40%) Drainage Water Sustainability (floods) Treatment Draws in investment	Enhances efficiency of resource allocation and implementation capacity for high-priority programs and disadvantaged groups
TIME HORIZON	Short: planning Medium to Long: implementation:	Medium to long	Short: quality for those with access Medium: new access, community management Long: quality of life	Medium
COMPLEMENTARTIES	<ul style="list-style-type: none"> <li>• Energy: sustainability of clean energy sources</li> <li>• Indigenous Peoples: ensuring sustainable use of natural resource base</li> </ul>	<ul style="list-style-type: none"> <li>• Hydropower generation</li> <li>• Indigenous People economic opportunities and livelihoods</li> </ul>	<ul style="list-style-type: none"> <li>• Marginalized groups (rural IP, Colón)</li> <li>• Indigenous population living in urban areas</li> <li>• Crime Violence</li> </ul>	Institutional capacity for environmental and social management
EVIDENCE-BASED	Canal watershed management model has demonstrated that efforts lead to reduced deforestation and efficiency of water consumption by different users	Climate projections forecast increased rainfall as well as increased occurrence of extreme weather events	Integrated urban water management in Medellín (Colombia), Monterrey (Mexico), and Sao Paolo (Brazil) have shown significant improvements	<ul style="list-style-type: none"> <li>• In 2014 ASEP (Regulatory agency) drafted only 371 resolutions for the WSS sector, compared to 5578 and 7834 in the electricity and telecommunications sector respectively.</li> <li>• Tariffs have not been revised since 1982 (decrease by 50 percent, adjusted for inflation)</li> </ul>
POLITICAL FEASIBILITY	High	High	Colón, Panama Bay, and basic sanitation are national priorities for the current government	Medium
ESSENTIAL PRECONDITIONS	Yes	No	Yes	

## Appendix C: Comparison Between ACP and ANAM Water Resources Management Models

	National Environmental Authority (ANAM)	Panama Canal Authority (ACP)
<b>Legal Framework for Water Resources Management (WRM)</b>	<p>Law 35 (1966)—“The water law” supported water resource management on a sector-by-sector basis (this law is pending revision)</p> <p>Law 41 (1998)—Created ANAM to manage environmental issues, to protect, conserve, and recover the environment, and to promote a sustainable use of natural resources</p> <ul style="list-style-type: none"> <li>When ANAM was created, other institutions such as MINSA, IDAAN, MOP, and MIDA among others were already involved in water resource management creating conflicting overlap in responsibilities.</li> </ul> <p>Law 44 (2002)—Establishes an administrative regime for the management, protection, and conservation of watersheds; proposes the creation of watershed committees and integrative management plans</p> <ul style="list-style-type: none"> <li>Treats water as one of many natural resources that is to be protected and conserved in the context of watershed</li> </ul> <p>*A law that reflects modern water management concepts (water use regulations, water pollution controls, water related conflicts) has yet to be fully developed in Panama</p>	<p>Title XIV of the Panamanian Constitution establishes the ACP and gives it “exclusive charge of the operation, administration, management, preservation, maintenance, and modernization of the Canal, as well as its activities and related services, pursuant to legal and constitutional regulations in force, so that the Canal may operate in a safe, continuous, efficient, and profitable manner.”<sup>1</sup></p> <ul style="list-style-type: none"> <li>The Canal is financially autonomous.</li> <li>An Administrator and a Deputy Administrator head the ACP under the supervision of an 11-member Board of Directors; members have overlapping terms to ensure their independence from the country’s administrations.</li> </ul> <p>Law 19 (1997)—Establishes the ACP to assume the responsibilities of the United States–Panama Canal Commission (US PCC) as well as the conservation and management of the PCW (which was not included in the US PCC’s mission)</p> <p>Agreement 16—Establishes the Inter-Institutional Commission for the PCW.<sup>2</sup></p>
<b>Institutional Set Up for WRM</b>	<p>Within ANAM, the Department for Water Resource Management sits in the Management Unit on Integrated Watershed Management (see appendix A).</p> <p>The UNESCO-supported Inter-Institutional Water Resources Council (CONAPHI) includes 13 institutions and Panama aims to coordinate and lead water resource management.</p> <p>ANAM’s 2010–2030 Plan for Integrated Water Resource Management includes a diagnostic of water resources management and recommends key activities in the short and medium terms based upon the identified gaps and areas of weakness. ANAM has made limited progress on implementing targeted aspects of the Plan.</p>	<p>The ACP heads the Inter-Institutional Commission for the Panama Canal Watershed (CICH), which includes the Ministry of Housing, the Ministry of Agriculture, the Ministry of Justice and Governance, the Authority for the Inter-Oceanic Region, as well as non-profit organizations. The CICH is responsible for coordinating all initiatives in the PCW.<sup>3</sup> The ACP, through the CICH, is carrying out its Plan for Sustainable Development and Integrated Water Resource Management. The ACP also has an Executive Vice Presidency for Environment, Water, and Energy.</p>
<b>Monitoring Capacity</b>	<p>ANAM carries out water balances at ten watersheds and assesses water quality in 95 rivers. ANAM currently does not have the financial or technical capacity to monitor water balances or water quality across the country and is reliant on government funding to extend its water resource management activities.<sup>4</sup></p> <p>ETESA is responsible for operating and maintaining the national network of meteorological and hydrological stations. In 2011, ETESA had 95 active stations to measure rainfall, temperature and relative humidity among other factors.<sup>5</sup></p>	<p>The ACP and its predecessor, the Canal Commission, have conducted extensive monitoring activities associated with Canal operations over the last two decades. Monitoring activities have been associated mainly with key environmental and social conditions central to the management of Canal operations and the quantity and quality of hydrologic resources. As such many of the traditional monitoring activities have focused on the Canal area watershed and have included monitoring of such environmental aspects as vegetation cover, hydrological conditions, and water quality as well as social aspects related to land use and settlements. Most of these long-term environmental monitoring programs are key components of ACP responsibilities established in the Organic Law for the adequate management use, and conservation of the Canal Watershed water resources.</p>

	National Environmental Authority (ANAM)	Panama Canal Authority (ACP)
<b>Quality of Water</b>	In the 95 rivers that ANAM monitors, 34 percent are classified as contaminated or slightly contaminated. <sup>6</sup> The main source of contamination is domestic sewage.	In 2013, the quality of the water in the PCW received a ranking of 87 on the Global Water Quality Index, positioning the quality of the water between good and excellent.
<b>Sustainability Measures</b>		
<b>Watershed Management Plans</b>	Watershed management plans for four watersheds Implementation strategy for one of the watersheds <sup>7</sup> (2010 data)	Plan for Sustainable Development and Integrated Water Resource Management “to promote watershed management in order to raise the standard of living of the PCW’s inhabitants without compromising the Canal’s future needs and constant water production in the amount and quality necessary for running the waterway and human consumption.” <sup>8</sup>
<b>Reforestation</b>	Reforested 300 hectares around targeted watersheds <sup>9</sup>	Reforested and maintaining more than 6,200 hectares in the PCW <sup>10</sup>
<b>Community Involvement</b>	Capacity building exercises for 200 community groups and cooperatives  Developed management plans for thirty farms along the Pacora River <sup>11</sup>	The ACP through the CICH supports a range of community-based social and environmental development projects to protect the PCW. For example, in conjunction with the National Lands Administration Authority, the ACP has helped over 3,500 producers and residents in the PCW receive land titles. This activity has facilitated land-use planning in the PCW.  The ACP has also played an active role in building the capacity of residents to protect the PCW. For instance, in collaboration with the Institute for Professional Formation and Human Resources Development and the Ministry of Education, the ACP carried out conservation and job-training programs for more than 5,666 residents.  In regard to agriculture, the ACP has worked with the Ministry of Agriculture Development of Panama (MIDA) to train more than 1,100 producers on sustainable agricultural and livestock practices. The ACP has also worked with MIDA to introduce green agroforestry models for shade-grown coffee and cacao production in the PCW.  The ACP receives international and national support for these programs, but also allocates a portion of its annual budget toward community initiatives. In addition to annual financial commitments, USAID assisted in the establishment of a Fund for the Conservation and Recuperation of the Canal Watershed to ensure long-term conservation. This fund supports projects in the following areas: reforestation, agro-forestry, natural habitat management, reduction of sources of pollution, basic community sanitations, liquid and solid waste control, soil conservation, ecotourism, land titling and unified cadastre, and development of sustainable agricultural techniques. <sup>12</sup>



	National Environmental Authority (ANAM)	Panama Canal Authority (ACP)
<b>Climate Change</b>	<p>With the support of National and international funds, ANAM has undertaken several small-scale adaptation and mitigation programs, including:</p> <ul style="list-style-type: none"> <li>• A program to capture rainwater in areas without ample water resources (Guna Yala and Ngäbe Buglé among other areas)</li> <li>• Climate change vulnerability studies and installing equipment to monitor the impact of climate change in two watershed</li> </ul>	<p>From the IFC's August 2008 Environmental and Social Review of the Panama Canal:</p> <p>As part of the expansion project design process, the ACP conducted extensive statistical modeling to evaluate the potential availability of water for navigation and potable use during droughts that might occur due to climate change influences within the next 17 years. The data analysis included historical rainfall and stream flow patterns, including three very significant ENSO events (that is, extreme droughts), which occurred over the last 30 years of operation. Using a 99 percent confidence interval, the evaluation concluded that sufficient water will be available for both Canal operation and potable use for growth in population through the year 2025.<sup>13</sup></p> <p>The ACP is working with the National Civil Defense System and local communities to build risk management capacity.</p>
<b>Knowledge Gaps and Areas for Development</b>	<p>In 2010, ANAM highlighted the following knowledge gaps and areas for development:</p> <ul style="list-style-type: none"> <li>• Limited knowledge on underground water</li> <li>• Lack of hydraulic infrastructure for extended dry periods</li> <li>• Lack of up-to-date knowledge on water-stressed areas</li> <li>• Unreliable information on water uses</li> <li>• Unknown number of illegal users</li> <li>• Lack of guidelines on water use in watershed management plans</li> <li>• Lack of capacity to monitor compliance with environmental norms on water resource management</li> <li>• Need to ensure that institutions use hydrogeological information before accessing underground water</li> <li>• No national campaign on the importance of conserving and protecting water; no evidence of optimization of water</li> <li>• Unknown ecological cost of water</li> <li>• Lack of a functioning information system to connect the knowledge of the various institutions involved in water resource management</li> </ul>	<p>In addition to a continued commitment to on-going activities, areas for further development include:</p> <ul style="list-style-type: none"> <li>• Mitigating contamination of connecting rivers, especially in urban and peri-urban areas</li> <li>• Preparing for floods and extended dry seasons</li> </ul>

## Notes

1. ACP, <http://www.pancanal.com/eng/acp/acp-overview.html>.
2. USAID 2005.
3. IDB 2008.
4. ANAM 2011.
5. GWP et al. 2011.
6. ANAM 2011.
7. See note 6, above.
8. WBCSD 2005.
9. ANAM 2011.
10. ACP 2013.
11. ANAM 2011.
12. Data in this section are from the Projects Database of the International Finance Corporation (IFC), World Bank, Washington, DC, <http://ifcext.ifc.org/ifcext/spiwebsite1.nsf/78e3b305216fcdba85257a8b0075079d/3fc41efc24a99097852576ba000e2c7b?open document>
13. See note 12, above.

## References

- ACP (Autoridad del Canal de Panama). 2013. *Informe anual 2013*.
- ANAM (Autoridad Nacional del Ambiente). 2011. *Plan Nacional de Gestión Integrada de Recursos Hídricos de la República de Panama: 2010–2030*.
- GWP (Global Water Partnership), EU (European Union), ZONAF (Programa de Desarrollo de Zonas Fronterizas en América Central), and BCIE (Banco Centroamericano de Integración Económica). 2011. *Situación de los Recursos Hídricos en Centro América: Hacia una Gestión Integrada*.
- IDB (Inter-American Development Bank). 2008. "Panama Canal Expansion Program (PN-L1032) Environmental and Social Management Report (ESMR)." IDB, Washington, DC. <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=1650393>.
- USAID (United States Agency for International Development). 2005. *Evaluation of USAID's Strategic Objective for the Panama Canal Watershed 2000 to 2005: Final Report*. USAID.
- WBSCD (World Business Council for Sustainable Development). 2005. "Panama Canal: Watershed Sustainable Development Program." Case Study.



**PANAMA HAS MADE SIGNIFICANT PROGRESS** in reducing poverty in recent years, progress that compares positively to that of the rest of the Latin America and Caribbean region.

This report takes stock of this progress and reflects on the constraints and opportunities that Panama faces in continuing on its path of shared prosperity and poverty reduction. The education and skills agenda, energy, public sector reform, the inclusion of indigenous peoples, and water management are identified as areas that will require attention to ensure the sustainability of Panama's success story.

Following a detailed analysis of poverty—recent trends, drivers of poverty reduction, and demographic factors—the report provides foundations to answer three main questions:

- What has driven growth in Panama in recent years?
- To what extent has this growth been, or not been, inclusive?
- How sustainable is the growth and more generally, the development model of Panama?