INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROGRAM DOCUMENT

FOR A PROPOSED DISASTER RISK MANAGEMENT DEVELOPMENT POLICY LOAN

WITH A

CATASTROPHE DEFERRED DRAWDOWN OPTION (DPL with a CAT DDO)

IN THE AMOUNT OF US$66 MILLION

TO

THE REPUBLIC OF PANAMA

September 2, 2011

Sustainable Development Department
Central America Country Management Unit
Latin America and the Caribbean Region

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Republic of Panama – Government Fiscal Year
January 1 – December 31
Currency Equivalents
Currency Unit = Balboa
US$1 = 1 Balboa
Weights and Measures
Metric System

Abbreviations and Acronyms

ANAM          National Environmental Authority (Autoridad Nacional del Ambiente)
APL           Adaptable Program Lending
CAPRA         Central America Probabilistic Risk Assessment
CAT DDO       Catastrophe Deferred Drawdown Option
CCA           Climate Change Adaptation
CEPREDENAC    Coordinating Center for the Prevention of Natural Disasters in Central America (Centro de Coordinación para la Prevención de los Desastres Naturales en América Central)
CFAA          Country Financial Accountability Assessment
CGR           National Comptroller’s Office (Contraloría General de la República)
CPS           Country Partnership Strategy
CSS           Social Security Administration (Caja del Seguro Social)
DDI           Disaster Deficit Index
DDO           Deferred Drawdown Option
DESINVENTAR   Disaster Information System
DICRE         Directorate of Investment, Concessions, and Risks (Dirección de Inversiones, Concesiones y Riesgos del Estado)
DPL           Development Policy Loan
DRM           Disaster risk management
DRR           Disaster risk reduction
DTCs          Double Taxation Conventions
ENSO          El Niño Southern Oscillation
GDP           Gross domestic product
GFDRR         Global Facility for Disaster Reduction and Recovery
GNP           Gross National Product
GoP           Government of Panama
HFA           Hyogo Framework for Action
IADB          Inter-American Development Bank
IBRD          International Bank for Reconstruction and Development
IMF           International Monetary Fund
MEDUCA        Ministry of Education
MEF           Ministry of Economy and Finance (Ministerio de Economía y Finanzas)
MIDA          Ministry of Agricultural and Livestock Development (Ministerio de Desarrollo Agropecuario)
MINSA         Ministry of Health (Ministerio de Salud y Asistencia Social)
MIVIOT        Ministry of Housing and Land Use Planning (Ministerio de Vivienda y Ordenamiento Territorial)
MOP           Ministry of Public Works (Ministerio de Obras Publicas)
NFPS  Non-Financial Public Sector
NGO  Nongovernmental organization
NPDRR National Platform for Disaster Risk Reduction
PAN National Aid Program (Programa de Ayuda Nacional)
PCA Panama Canal Authority (Autoridad del Canal de Panama)
PCGIR Central American Comprehensive Disaster Risk Management Policy (Política Centroamericana de Gestión Integral de Riesgo de Desastres)
PEG Government Strategic Plan (Plan Estratégico de Gobierno)
PNGIRD Comprehensive Disaster Risk Management National Policy (Política Nacional de Gestión Integral de Riesgo de Desastres)
RdO (Red de Oportunidades)
SIAM Mesoamerican Environmental Information System
SINAPROC National Civil Protection System (Sistema Nacional de Protección Civil)
UNISDR United Nations International Strategy for Disaster Reduction
USAID United States Agency for International Development

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# Loan and Program Summary

## Republic of Panama

**Disaster Risk Management Development Policy Loan with a CAT DDO**

<table>
<thead>
<tr>
<th>Borrower</th>
<th>Republic of Panama</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementing Agency</td>
<td>Ministry of Economy and Finance</td>
</tr>
</tbody>
</table>

**Financing Data**

The Borrower selected a US$66 million fixed spread IBRD Flexible loan. This loan will have a final maturity of 15 years, including 3 years of grace period, and level repayments every May and November. The repayment schedule will be linked to commitment. The Borrower will pay the front-end fee from its own resources and selected to maintain only the interest rate conversion option. The Borrower did not select the Automatic Rate Fixing.

**Operation Type**

Development Policy Loan with a Catastrophe Deferred Drawdown Option (DPL with a CAT DDO)

**Main Policy Areas**

Disaster Risk Management

**Key Outcome Indicators**

- Increased GoP capacity for disaster risk reduction (DRR).
  - Disaster Risk criteria incorporated in the National Public Investment System (SNIP) (target, guidelines incorporated into the SNIP).
  - Increased number of provinces with updated protocols for disaster preparedness and response (baseline 1, target 4).

- The 2011-2015 PNGR is being implemented by key stakeholders.
  - At least three ministries (e.g. MEF, MIVIOT and ANAM) have carried out DRR priority actions identified in the 2011-2015 PNGR (baseline 0, target 3).

- Under its expanded role, DICRE is developing financial protection policies, strategies, or instruments.
  - DRM financial management program developed.

**Program Development Objective(s) and Contribution to Country Partnership Strategy (CPS)**

The overall development objective of the proposed operation is to enhance the GoP’s capacity to implement its Disaster Risk Management Program for natural disasters. The CPS specifically identifies strengthening disaster management as one of the key areas for Bank support. This operation is envisaged in the CPS.

**Risks and Risk Mitigation**

Economic Risks. On the economic front, the main risk derives from the potential impact of higher food, oil and, more generally, commodity prices. Panama is a net importer of commodities and therefore higher than anticipated price increases may result in lower growth, higher inflation, a deterioration of the external balance, and a tighter fiscal situation. The Bank and the IMF are maintaining an ongoing
dialogue with the Government on macroeconomic policy issues, which will help detect early potential threats to Panama. Fiscal risks are also mitigated by the Social Fiscal Responsibility Law (SFRL); if an economic slowdown or other external factors cause tax revenue to be lower than projected, the government will restrain expenditures in order to meet the fiscal deficit target established by the SFRL. Therefore, economic risks are considered moderate.

Institutional Risks. Interinstitutional coordination poses a systemic risk in any emergency management project. In Panama, SINAPROC has the capacity to lead an emergency response and institutional efforts, as demonstrated during the emergency situation in December 2010. Law No. 7 of February 11, 2005 ensures an efficient national effort and gives SINAPROC the maximum authority to implement policies and plans of civil protection and disaster mitigation. On the other hand, Panama’s public sector institutions, financial management, and procurement systems need to improve to monitor and evaluate public investment. Therefore, institutional risks are rated as relatively high as compared with similar projects in the region. The Bank has several investment projects that support institutional reforms, which can help to mitigate this risk.

Political Risks. The country is politically stable and there has been a low turnover of senior and technical officials within the GoP, but the main risk is related to the possibility of weaknesses in consultations on future policy reforms with the civil society. In response to concerns voiced by civil society organizations, the administration has opened a broad National Dialogue (Concertación Nacional para el Desarrollo, CND) about new legislation to provide nongovernmental actors the opportunity to propose amendments. This lowers the risk of loss of momentum to complete the reforms supported by this program to a moderate level. The Bank will continue to stress the importance of further strengthening the CND to ensure that stakeholders’ concerns are adequately addressed.

Operation ID P122738
I. INTRODUCTION

1. Panama’s vulnerability to the impacts of natural hazards is showing an increasing pattern characterized by a higher physical exposure of people, goods, and services, compounded by extreme climatic variability conditions. This evolving risk scenario was manifested in December 2010, when intensive rainfall across Panama caused widespread flooding, even forcing the temporary closing of the Panama Canal due to the unprecedented water levels in the artificial lakes, reaching their highest levels ever recorded. At the same time, extensive areas of Panama City lacked potable water for weeks due to the associated impacts of the rainfall and flooding. According to a March 2011 official government report, Panama needed an additional US$149.3 million to repair damaged infrastructure and restore economic activity in the areas affected by the floods. The Government of Panama (GoP) did not have enough contingent reserves to finance the post-disaster rehabilitation phase and was forced to ask the National Assembly for a temporary suspension of the financial limits contained in the Social and Fiscal Responsibility Law to bridge the financial gap caused by the disaster.

2. According to the Natural Disaster Hotspot study by the World Bank, Panama has the 14th-highest economic risk exposure to multiple hazards. Due to its geographic location and tectonic characteristics, Panama is exposed to a variety of natural hazards, including those of hydrometeorological and geophysical sources. Along with the rest of Mesoamerica, the country is located on one of the most seismically active regions on earth. Panama is also frequently affected by floods and landslides and, with the exacerbating effect of climate change, the frequency and intensity of extreme weather events—including the El Niño Southern Oscillation (ENSO)—are expected to rise. Tropical storms may become stationary over Panamanian territory for prolonged periods, causing major floods and triggering landslides. Hydrological studies show that during ENSO events there is a decrease in the levels of the artificial lakes that feed the Panama Canal system. During the 1982–83 and 1997–98 ENSO events the Panama Canal watershed experienced severe droughts, which resulted in the imposition of ship draft restrictions and a reduction in the number of vessels allowed through the Canal.

3. The Prevention Web site reports that Panama experienced 38 major natural disaster events between 1980 and 2009, which caused an estimated US$96 million in economic damages. Two hundred seventy-six people were killed and 279,712 people were affected. These figures, however, do not take into account the cumulative effect of recurrent

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low-intensity hydrometeorological events that frequently affect the country. According to Panama’s Disaster Information System (Desinventar)\(^3\) database, which tracks data on the occurrence of adverse events disaggregated at local level, the country suffered 1,225 local adverse natural events between 1999 and 2009 that killed 103 people and affected 211,000. Over 80 percent of these events were hydrometeorological in origin, causing 72 percent of reported fatalities.

4. **Cities in Panama have grown steadily, thereby heightening vulnerability due to the increased concentration of the population, infrastructure, and production of goods and services.** Most of the Panamanian population lives in or around the Panama Canal Watershed, and migration from rural areas continues. Although the country has a comprehensive anti-seismic building code, the integration of safe building practices in older buildings or unplanned urban settlements is uncertain. In addition, the Panama City Metropolitan Region has a housing deficit, which exacerbates the precarious living conditions of low-income families who live in poorly built dwellings located in hazard-prone and socially marginalized areas.

5. **The Inter-American Development Bank’s (IADB’s) 2009 Disaster Deficit Index (DDI)**\(^4\) for Panama indicates that in the case of the occurrence of a catastrophic event with a recurrence interval of 100 years or more (probability of occurrence of the event of 1 percent in any year), the country will incur losses equivalent to 5.44 percent to 9.05 percent of its gross domestic product (GDP); and that the Government would not have sufficient resources to immediately cope with the losses and replace the stock of capital affected. Taking into account that the DDI was assessed using 2008 data, and the rapid increase of the physical exposure of the built environment in the country over the last few years, it is reasonable to conclude that the need for a robust financial protection strategy (including contingency facilities) is essential for the overall disaster risk reduction agenda of the country.

6. **The GoP acknowledges that implementing sound environmental and land use management practices is critical to ensure that key sectors of the Panamanian economy (including the Panama Canal and the tourism industry) can continue to grow in a sustainable way.** To address the country’s environmental challenges, the GoP is planning a series of interventions, including the development of a comprehensive nationwide regulatory framework for urban and rural land zoning, and an update of the urban development guidelines for the Metropolitan Areas of Panama City and Colón. The creation of the Ministry of Housing and Land Use Planning (MIVIOT) in 2009 is expected to have a positive impact on reducing the country’s physical vulnerability to natural hazards.

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\(^3\) Desinventar is a methodology and information management tool that helps analyze disaster trends hydrometeorological, geophysical, and anthropogenic events that affect countries and their impacts. In Panama, the National Civil Protection System (SINAPROC) is responsible for maintaining the Desinventar database.

\(^4\) “The Disaster Deficit Index (DDI) measures the economic loss that a particular country could suffer when a catastrophic event takes place, and the implications in terms of resources needed to address the situation. Construction of the DDI requires undertaking a forecast based on historical and scientific evidence, and measuring the value of infrastructure and other goods and services that are likely to be affected. The DDI captures the relationship between the demand for contingent resources to cover the losses caused by the Maximum Considered Event (MCE), and the public sector’s economic resilience—that is, the availability of internal and external funds for restoring affected inventories” (“Indicators of Disaster Risk and Risk Management,” Technical Notes No. IADB-TN-169, IADB, September 2010).
7. Another strategic area on Panama’s agenda is the response to the challenges posed by climate change and tapping into the opportunities that it offers. The GoP recognizes the need to devise an effective climate change mitigation and adaptation strategy with buy-in from the country’s diverse groups of stakeholders and sectors—a strategy to facilitate the adoption of innovative technologies in the energy sector and agriculture, encourage private sector investment in clean technology, promote the use of renewable energy, sustainable land use, and reduced deforestation. On the adaptation side, priority areas are the reduction of vulnerability to natural hazards and climate shocks and the spread of vector-borne diseases.

8. This Program Document proposes a US$66 million Disaster Risk Management Development Policy Loan with a Catastrophe Deferred Drawdown Option (DPL with a CAT DDO) as budget financing for the GoP for an initial period of three years. The GoP requested this operation to complement other instruments in the country that are part of its Disaster Risk Management (DRM) Program, and are in line with the Bank’s comprehensive framework for disaster risk management and emphasis on disaster prevention, as opposed to only disaster response.

9. The overall development objective of the proposed operation is to enhance the GoP’s capacity to implement its DRM Program for natural disasters. This objective will be achieved through budget financing that will in turn support the GoP policy and institutional reforms.

10. In recent years, the country has taken important steps toward implementing a sound DRM framework. These efforts are focused on actions to mitigate natural disaster risks and lower the country’s vulnerability in the context of the “Hyogo Framework for Action 2005–2015: Building the Resilience of Nations and Communities to Disasters.” The prior actions demonstrating such progress are described in this document. As a member of the Coordinating Center for the Prevention of Natural Disasters in Central America (Centro de Coordinación para la Prevención de los Desastres Naturales en América Central, CEPREDENAC), the country endorsed, in June 2010, the Central American Comprehensive Disaster Risk Management Policy (Política Centroamericana de Gestión Integral de Riesgo de Desastres, PCGIR), which aims to facilitate the implementation of policy decisions on risk reduction.

11. The Program supports the Millennium Development Goals by addressing disaster risk issues that affect the most vulnerable segments of the population. This is achieved by: (a) improving the effectiveness and efficiency of disaster response mechanisms, (b) integrating principles of risk management and prevention across all government agencies, and (c) mainstreaming environmental protection and land use zoning regulations as critical components of risk management and prevention. As has been extensively documented, disasters associated with natural hazards disproportionately affect the poor populations living

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5 The standard drawdown period for a DPL with a CAT DDO is three years, renewable four times (for a total of 15 years). The maximum amount available under a DPL with a CAT DDO should be no more than the lesser of 0.25 percent of GDP or US$500 million. In the case of Panama, using 2010 GDP figures, the estimated maximum amount is approximately US$66 million.

6 The PCGIR was approved at the Summit Meeting of Heads of State of Central America, June 29–30, 2010, in Panama City, Panama.
in slum and squatter settlements on steep hillsides, in poorly drained areas, and in low-lying coastal zones. The poor are the most vulnerable to economic and human capital losses from natural disasters in the country and are victims of both rare catastrophic events and frequent low-intensity events, and their adverse cumulative impacts.

II. COUNTRY CONTEXT

Political Context

12. **The Martinelli Administration has committed to addressing key development challenges including bottlenecks to growth and expanding economic opportunities for the poor.** President Martinelli’s Government is looking toward leveraging private-sector-led economic development with public investment to assist with some of the country’s most difficult challenges. Compared to the previous five years, the Government is planning to significantly increase public investment (to over US$13 billion), 40 percent of which will be invested in projects to improve Panama’s competitive advantages (logistics, tourism, and agriculture). Moreover, it has committed to deepening the impact of the country’s flagship poverty reduction conditional cash transfer program, *Red de Oportunidades* (RdO), and to improving the efficiency and effectiveness of all public spending. To ensure fiscal sustainability, the Government has implemented a broad-based tax reform that is expected to net an additional 1.7 percent of GDP per year. Together with efforts on the tax administration front and a recovery of tax receipts in the context of high growth, tax collection is projected to increase to 12.8 percent of GDP in 2011 and to above 13 percent of GDP during 2012–15.

13. **In its first year in office, the Martinelli Administration delivered on several of its key public policy goals.** Advances include: (a) increasing the minimum wage; (b) implementing a program to deliver US$100 per month for low-income citizens 70 years or older with no pension, called *100 a los 70*; and (c) creating the Metro Secretariat and a plan for a 14-kilometer Panama City metropolitan subway system. In addition, the Martinelli Administration has: (a) presented its five-year economic development and tax reform strategy to the National Assembly, and (b) implemented its tax reform strategy. The Government is making significant progress on negotiating a series of bilateral tax information-sharing agreements and is also working to improve its governance and transparency through enhanced financial management and procurement reforms.

Economic Context

14. **Panama is an upper-middle-income country with a dollarized economy and a per capita gross national income (GNI) of US$6,990.** The country has about 3.5 million people nearly three-quarters of whom live in urban areas, mostly around the Panama Canal. About 10 percent of the population is of indigenous origin and primarily resides in remote rural areas.

15. **Panama has an open economy traditionally centered on the Canal, trade, and financial services.** Panama is one of the most open economies in the region, with both exports and imports as a share of GDP above 60 percent. Wholesale and retail trade and

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7 2010 ATLAS GNI per capita.
financial services are concentrated in urban areas and have accounted for 43 percent of GDP and over 80 percent of the country’s total exports. Panama’s international service sector rests on five main activities including the Panama Canal operations, ports and logistics, tourism, re-exports of the Colón Free Zone, and financial intermediation. Most industrial production is agro-industrial and has traditionally been concentrated in special economic zones that enjoy privileged tax treatment on inputs for export.

A. RECENT ECONOMIC DEVELOPMENTS

16. **Panama weathered the global economic crisis relatively well.** Compared to a regional average output contraction of 0.4 percent in 2009, Panama did relatively well with growth of 3.2 percent in 2009 (see figure 1). The direct effects of the global crisis were modest and the financial system has remained stable. However, the economy was indirectly affected through declines in credit growth, reduced trade financing, and a halt in new real estate construction, which, in turn, was felt in sectors such as agriculture, transport, trade, and construction. Reflecting the decline in demand, the external current account was near balance in 2009, while in 2008 it recorded a deficit of 11.8 percent.

17. **Panama’s economic activity staged a strong recovery during 2010, with services being the key driver of growth.** By the fourth quarter of 2010, GDP was growing at the fastest pace in the last two years (8.7 percent compared to the same period the previous year), with transport and logistics being the most dynamic sector (14.5 percent growth year-over-year [Y-O-Y]), followed by commerce (12 percent growth Y-O-Y). The strong growth performance was also supported by a pickup in the industrial sector, which benefited from buoyant growth in construction (10.9 percent Y-O-Y). On a less positive note, the primary sector continued in negative territory for the fourth consecutive quarter, contracting almost 20 percent (Y-O-Y). Panama’s GDP grew 7.5 percent in 2010 (see table 1).

18. **The strong growth recovery in 2010 was accompanied by deterioration in the external balance and an increase in inflation.** The external current account widened sharply in 2010 to 11 percent of GDP. This reflects a jump in the merchandise trade deficit as imports related to the expansion of the Canal and other investment projects accelerated, and the increase in the price of commodities (of which Panama is a net importer). Similarly, inflation reached 4.9 percent (Y-O-Y) in 2010, up from 1.9 percent in 2009, reflecting sustained domestic demand pressures and higher international commodity prices.

19. **The fiscal position of the Non-Financial Public Sector (NFPS) deteriorated slightly in 2010.** The deficit of the NFPS (excluding the Panama Canal Authority [PCA]) increased from 1 percent of GDP in 2009 to around 1.9 percent of GDP in 2010, which is below the Social and Fiscal Responsibility Law ceiling of 2.5 percent of GDP for 2010. The public debt stock stood at 39.2 percent of GDP in 2010.

20. **The Government’s investment plan for 2010–14 amounts to US$13.6 billion (equivalent to 50 percent of 2010 GDP).** About US$9.6 billion will be invested in infrastructure, of which US$2 billion will go toward infrastructure for social programs such as the construction of schools, hospitals, social housing, and water and sewage, among others. The most important investment project will be the metro for Panama City (about US$1.8 billion), but an important share of the investment will also benefit the regions outside the
capital (about US$4.2 billion). This includes irrigation projects, roads to enhance logistical advantages and interconnection with ports, and rural electrification. The investment program represents an increase on average of about 1 percent of GDP in capital expenditures per year compared to 2009. The significant increase in public investments poses challenges, and given the size of the investment program, strong execution capacity is required.

21. **The tax reform approved by the National Assembly is expected to increase tax collections.** The first of the two phases of the tax reform was implemented before the end of 2009 and included an increase in taxes for casinos and taxes on income of companies operating in the Colón Free Trade Zone. The Government estimates that these measures will increase tax collections by 1.0 percent of GDP per year. The second phase of the reform was approved by the National Assembly on March 15, 2010, and includes higher taxes on consumption and lower taxes on personal and corporate income. The Government expects to collect an additional 0.7 percent of GDP per year from this most recent reform. Tax administration efforts are projected to yield an additional 0.5 percent of GDP per year. The first and second phases of reform together with efforts on the tax administration front will bring about 2.3 percent of GDP in additional revenues per year, which will be sufficient to finance the additional 1 percent of GDP in capital expenditures per year required by the new investment plan and the 0.6 percent of GDP decline in non-tax revenues.
Figure 1: Panama: Recent Developments

Index of Economic activity suggests Panama's economy is returning to a higher growth trajectory...

Quarterly GDP Growth and IMAE

Quarterly data: y-o-y % change; 3 months average; 12m % change
- Quarterly GDP growth
- IMAE

Note: Latest observation refers to November 2010 for IMAE and Q4 2010 for GDP growth.

Transport & Communications and Trade being the most dynamic sectors.

Sectoral Contributions to Quarterly GDP Growth (Q on Q-1, in percent)

Agric. & Min.
Indust.
Retail and Wholesale Trade
Fin. Interm.
Transp.&Comm.
Oth. Serv.

Note: Latest observation refers to Q1 2010 for GDP growth.

Inflation has been increasing steadily, but is still below the pre-crisis levels.

Inflation
(12 months % change)

Core
Food
Overall

Note: Latest observation refers to January 2011.

The widening trade deficit reflects rising imports related to the expansion of the canal.

Trade Balance and Import and Export Growth
(12 month moving avg in millions US$, cumulative 12 months in %)

Goods Trade Balance
Exports of goods
Imports of Goods

Note: Latest observation refers to November 2010.

Central Government fiscal revenues (excluding PCA revenues) are increasing after the fiscal reforms and sustaining higher expenditures...

Fiscal Revenues
(Annual cumulative growth rate)

Tax revenues
Current Revenue

Note: Latest observation refers to December 2010.

...Nevertheless debt stock is also rising, but growth in GDP is likely to prevent a rise in the debt-to-GDP ratio.

Public Debt
(Rsa. millions of US$; Rsa. % of GDP)

Note: Latest observation refers to December 2010.

Sources: Comptroller General, Superintendence of Banks; World Bank staff calculations.
<table>
<thead>
<tr>
<th>Table 1: Panama: Key Macroeconomic Indicators, 2007–15</th>
</tr>
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<tbody>
<tr>
<td><strong>Source:</strong> Comptroller General; Ministry of Economy and Finance; and Bank staff estimates and projections.</td>
</tr>
<tr>
<td><strong>1/</strong> Excludes the Colon Free Zone.</td>
</tr>
<tr>
<td><strong>2/</strong> Includes public service fees.</td>
</tr>
<tr>
<td><strong>3/</strong> Including PCA and net of Fiduciary Fund holdings of non-government assets.</td>
</tr>
</tbody>
</table>

### Production and prices
- **Real GDP**
  - 2007: 12.1
  - 2008: 10.1
  - 2009: 3.2
  - 2010: 7.5
  - 2011: 7.4
  - 2012: 7.2
  - 2013: 7.1
  - 2014: 6.7
  - 2015: 6.5

### External trade 1/
- **Merchandise exports**
  - 2007: 11.7
  - 2008: 5.3
  - 2009: -17.5
  - 2010: -14.1
  - 2011: 15.8
  - 2012: 15.9
  - 2013: 15.8
  - 2014: 12.2
  - 2015: 9.2

### Saving-investment balance
- **Gross domestic investment**
  - 2007: 24.1
  - 2008: 26.8
  - 2009: 23.9
  - 2010: 27.5
  - 2011: 28.2
  - 2012: 28.6
  - 2013: 28.4
  - 2014: 28.3

### Central Government
- **Revenues and grants**
  - 2007: 19.2
  - 2008: 19.8
  - 2009: 18.5
  - 2010: 18.6
  - 2011: 20.4
  - 2012: 20.0
  - 2013: 19.8
  - 2014: 19.7
  - 2015: 20.0

### External sector
- **Current account**
  - 2007: -7.2
  - 2008: -11.8
  - 2009: -0.2
  - 2010: -11.2
  - 2011: -12.7
  - 2012: -12.6
  - 2013: -12.4
  - 2014: -12.2

### Memorandum items:
- **GDP (in millions of US$)**
  - 2007: 19,794
  - 2008: 23,002
  - 2009: 24,080

### Sources:
- Comptroller General; Ministry of Economy and Finance; and Bank staff estimates and projections.
- **1/** Excludes the Colon Free Zone.
- **2/** Includes public service fees.
- **3/** Including PCA and net of Fiduciary Fund holdings of non-government assets.
- **4/** Table 1 reflects an update in agreement with the IMF following a March 2011 staff visit.
22. **Under the Martinelli Administration, international cooperation in tax matters improved significantly and the legal and regulatory framework progressed.** Panama has committed to the international standards of transparency and effective exchange of information since 2002. The approval of key legislation (Law 33 of 2010) during the first months of the Administration has contributed to improvements in the legal and regulatory framework in the country. In addition, the Government passed Law 2 of 2011 to address the issue of availability of ownership information. Tax information sharing also progressed through the signing of a series of bilateral agreements. Since March 2010, 11 Double Taxation Conventions (DTCs) have been signed and the Government is currently negotiating three additional DTCs. Moreover, in November 2010, Panama signed its first Tax Information Exchange Agreement (TIEA) with United States. Both the TIEA and DTCs include a provision on exchange of information, which is in line with the Global Forum’s standards of effective exchange of tax information, but they have not been reviewed by the Forum yet. In early July, 2011 Panama was moved to the OECD’s list of jurisdictions considered to have substantially implemented the standard for exchange of information when it signed a tax information exchange agreement with France. This brings Panama’s total agreements to the critical 12 that meet the international standard. However, Panama still has not yet completed the Global Forum’s Peer Review Process.

23. **In 2010, Panama achieved investment-grade status from Fitch, Standard & Poor’s, and Moody’s credit rating agencies.** Panama’s credit-rating upgrade reflects a sustained improvement in public finances, underpinned by recent tax reforms, and the economy’s resilience to the global financial crisis and associated global recession. By achieving investment grade, the country hopes to lower the cost of borrowing and to increase access to additional financing from institutions and investors that are restricted to high-grade investments. More recently, Fitch upgraded Panama’s credit rating to BBB, the second-lowest investment grade, reflecting solid economic growth prospects and favorable government debt dynamics.

**B. MACROECONOMIC OUTLOOK AND DEBT SUSTAINABILITY**

24. **The growth outlook for Panama is very positive.** The dynamism of the services sector observed in recent years is expected to continue. Moreover, it will be complemented by high public investment, most notably the expansion of the Panama Canal and the Government’s public investment plan, including the Panama Metro. These elements are expected to contribute to growth of about 7 percent per year (on average) during 2011–15. As a result of this growth performance, the unemployment rate is projected to fall from 6.5 percent in 2010 to 6 percent in 2011. The inflation rate has been increasing steadily, driven by strong economic performance and higher commodity prices, but current projections suggest inflation to remain below 6 percent.⁸ Panama’s monetary policy is tied to the US Federal Reserve, which is likely to continue to pursue a loose policy in the medium term. In case that inflationary pressures increase, macroeconomic stabilization will depend upon fiscal policy.

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⁸ These projections may need to be updated as a result of the evolution of higher global food and oil prices (see box 1).
25. **The investment and imports associated with the expansion of the Panama Canal will have a sizable impact on the external current account deficit.** The current account deficit is projected to peak at 12.7 percent of GDP in 2011 and to start declining thereafter as work on the Canal expansion advances. Nevertheless, in 2015 it is still projected at 10.4 percent of GDP. Foreign direct investment, however, is also expected to remain at high levels (about 9 percent of GDP during 2011–15) and to finance a significant share of the external deficit.

26. **The fiscal position of the NFPS should remain strong during 2011–15.** The NFPS deficit, excluding the PCA, is expected to decrease from 1.9 percent of GDP in 2011 to 1.3 percent of GDP in 2012, and to turn into a surplus in 2015. This performance, in the context of an ambitious public investment plan, will be in part motivated by the fiscal reform and associated increase in tax collection. Moreover, a strong fiscal position is guaranteed even if the increase in tax collection is below current projections, because the Social and Fiscal Responsibility Law has a clear ceiling for the deficit. Better fiscal outcomes, together with high growth rates, are expected to support a decline in public debt levels to 28.3 percent of GDP in 2015.

27. **The recent increase in food and fuel prices could negatively affect Panama’s macroeconomic outlook (see box 1).** For example, higher than expected food and oil prices would result in a macroeconomic framework characterized by lower economic activity, higher inflation, a higher external current account deficit, and a less optimistic fiscal position than the one presented in table 1.

28. **Debt Sustainability.** A combination of a gradual rise in revenue and a containment of current expenditures should allow the authorities to expand public investment while keeping public debt sustainable in the coming years (see Debt Sustainability Analysis in Annex 4). Conservative fiscal policies since 2005 and high GDP growth resulted in a fall of the consolidated public-debt-to-GDP ratio from 62.2 percent in 2004 to 39.2 percent in 2008 before increasing somewhat to 41.2 percent of GDP in 2009. In 2010, the ratio began to fall again, to 39.2 percent of GDP.

29. **Panama’s public debt is projected to stay on a sustainable path during 2011–15.** The debt sustainability analysis summarized in table 2 (and discussed in Annex 4) is based on the macroeconomic framework in table 1. The analysis indicates that an average primary balance – including the PCA of 0.9 percentage points of GDP between 2011 and 2015 would result in a gradual decline in the public-debt-to-GDP ratio from 39.2 percent of GDP in 2010 to 28.3 percent by 2015.

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9 The projected combined public sector deficit for 2011 includes the additional US$149.3 million needed to repair damaged infrastructure and restore economic activity in the areas affected by the floods.

10 The 2011 Social and Fiscal Responsibility Law fiscal deficit target has been increased to about 3 percent of GDP, but the projected deficit for this year is 1.9 percent of GDP.

11 Current expenditures are expected to remain constant as a share of GDP.
Box 1: The Impact of Food and Oil Prices in Panama

As in other countries, the rise in global food and energy prices is already having an impact in Panama. The Food and Agriculture Organization Food Price Index increased by 37 percent over the last 12 months and continues to float at the highest levels since January 1990, when the index was first computed. Similarly, oil prices increased by 44 percent over the past year, including 17 percent in the first quarter of 2011. These global developments are already becoming apparent in Panama, where the food price index has also reached record levels in both nominal and real terms, and where the price of gasoline is at levels not seen since October 2008 in the context of the previous food and oil crisis.

The effects of higher food and oil prices have several dimensions. On the macroeconomic front, higher food and oil prices may translate into lower economic activity, higher inflation, and fiscal and external pressures. So far, the only noticeable impact is on the rate of inflation, which has accelerated in recent months from 2.8 percent (Y-O-Y) in June 2010 to 6.4 percent in May 2011; and the import bill, which increased by 32.3 percent from 2009 to 2010. Higher commodity prices may have a significant fiscal impact. For example, during the previous food crisis of 2008, the government resorted to lowering import tariffs (an action that would lower fiscal revenues) and increasing cash transfers to the neediest consumers (which, unless offset by cuts in other budget lines, would increase spending). Economic activity can also be negatively affected, and although growth projections have not been adjusted so far, Panama’s dynamic economy appears well positioned to absorb the real impact of higher commodities.

On the social front, the impact of the food and oil crisis can be severe. Higher food prices will have a major impact on the poor, since poorer households typically spend a large share of their total expenditure on food. In particular, estimations based on expenditure surveys show that the share of income spent on food by the poorest quintile of the population in Panama is 57.8 percent. This compares to 24.7 percent for the richest quintile of the population. Moreover, some segments of the Panamanian population may be affected disproportionately: about 85 percent of Panamanians living in indigenous areas are extremely poor and cannot afford enough calories for an adequate diet.

Looking forward, timely policy measures may reduce the impact of the crisis. Policy responses can be articulated around two main pillars. First, protecting the neediest should be a key priority, and the existing conditional cash transfer program (Red de Oportunidades) could be instrumental to this end. Similarly, enhancing market information and competition can be critical to ensure market efficiency, thereby preventing price increases not justified by fundamentals. Second, with a longer-run focus, supply chain management and better infrastructure can reduce food loses and distribution costs (a significant share of the final price paid by consumers). Similarly, programs that target rural areas and that remove barriers to agricultural production can potentially contribute to an expansion in the food supply.

Governments may be tempted to lower import tariffs temporarily to somewhat mitigate the domestic impact of global trends. Yet, ad hoc tariff adjustments (lowering them when global prices are high and raising them when they are low) have the same effect globally as raising and lowering export taxes—it insulates the domestic market but amplifies the international price swings and raises adjustment costs for everyone. It also sends the wrong signals domestically, discouraging agricultural production even when prices are high. In this regard, tariff adjustment should be considered only in a context of a more or less permanent adjustment.

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a Brambilla and Porto 2009.
30. **Although the debt outlook under the baseline scenario looks fairly stable, there are still some potential economic risks that could arise in the medium term.** To examine the potential implication of these risks, table 2 presents projected debt dynamics for the NFPS (including the PCA) under more pessimistic alternative scenarios:

- Under higher average real interest rates for public debt during 2011–12 (Scenario B1), projected debt indicators for 2012 would be 2.8 percentage points higher than under the baseline scenario.
- Under a less optimistic scenario with growth at the baseline minus 2 standard deviations (Scenario B2), the public-debt-to-GDP ratio would be 5.3 percentage points higher than under the baseline scenario in 2015.
- Assuming a looser fiscal policy (Scenario B3) with an average primary deficit of 2.8 percent of GDP during 2011–12 instead of the assumed primary surplus of 1.0 percent of GDP under the baseline scenario, the public debt-to-GDP ratio would be 2.8 percentage points higher than under the baseline scenario in 2015.
- Under a scenario of simultaneous shocks in which GDP growth, the primary balance, and real interest rates are affected (Scenario B4), the public-debt-to-GDP would reach 35.3 percent in 2015 or 7 percentage points higher than in the baseline scenario.

Table 2: Panama Debt Sustainability Analysis, including PCA (Alternative Scenarios)

<table>
<thead>
<tr>
<th>Baseline</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>39.2</td>
<td>37.8</td>
<td>36.3</td>
<td>34.8</td>
<td>32.7</td>
<td>28.3</td>
</tr>
<tr>
<td>A1. Key variables are at their historical averages in 2011-16</td>
<td>39.2</td>
<td>38.1</td>
<td>37.2</td>
<td>36.4</td>
<td>34.9</td>
<td>31.0</td>
</tr>
<tr>
<td>A2. No policy change (constant primary balance) in 2011-16</td>
<td>39.2</td>
<td>37.7</td>
<td>36.5</td>
<td>35.0</td>
<td>32.9</td>
<td>28.5</td>
</tr>
<tr>
<td>B1. Real interest rate is at historical average plus two standard deviations in 2011 and 2012</td>
<td>39.2</td>
<td>39.0</td>
<td>39.1</td>
<td>37.6</td>
<td>35.6</td>
<td>31.1</td>
</tr>
<tr>
<td>B2. Real GDP growth is at historical average minus two standard deviations in 2011 and 2012</td>
<td>39.2</td>
<td>40.4</td>
<td>41.6</td>
<td>40.1</td>
<td>38.0</td>
<td>33.6</td>
</tr>
<tr>
<td>B3. Primary balance is at historical average minus two standard deviations in 2011 and 2012</td>
<td>39.2</td>
<td>40.5</td>
<td>39.1</td>
<td>37.6</td>
<td>35.5</td>
<td>31.1</td>
</tr>
<tr>
<td>B4. Combination of 1-3 using one standard deviation shocks</td>
<td>39.2</td>
<td>41.1</td>
<td>43.3</td>
<td>41.8</td>
<td>39.7</td>
<td>35.3</td>
</tr>
<tr>
<td>Most Extreme Test (B4)</td>
<td>39.2</td>
<td>41.1</td>
<td>43.3</td>
<td>41.8</td>
<td>39.7</td>
<td>35.3</td>
</tr>
</tbody>
</table>

31. **On the basis of the previous discussion, Panama’s macroeconomic policy framework is considered adequate.** Panama’s performance in the context of the global economic crisis has been strong, and this positive performance is expected to continue. At the same time, the new administration’s ambitious investment program is backed by the expected higher tax collections resulting from the new fiscal reform, and fiscal sustainability is supported by the Social and Fiscal Responsibility Law.
Social Context

32. **A key development challenge facing Panama is to ensure that economic growth is maintained and that benefits are broadly shared.** Indeed, Panama’s economic development has been characterized by a high degree of inequality. Growth has traditionally benefited mainly the capital-intensive service sectors concentrated geographically in the Panama and Colón provinces, while generating little economic opportunity for low-income members of society. Over the past decade, the decline in poverty rates has been modest considering the high GDP growth rates. While Panama spends approximately 2.8 percent of its GDP on social assistance, in line with other Central American countries, the effectiveness of these programs in reducing poverty and creating opportunities for all remains a challenge.

33. **A large share of the population continues to live in poverty, including about 14 percent in extreme poverty** (see table 3). These rates are close to those observed in other Latin American countries with a similar per capita income (Brazil, for instance). Poverty in Panama is concentrated in rural and especially in indigenous areas. Nearly all people living in indigenous areas are poor (96.3 percent) and most are extremely poor (85 percent). That is, 85 percent of those living in indigenous areas cannot afford enough calories for an adequate diet. Moreover, despite representing about 10 percent of the national population, those living in indigenous areas represent about 21 percent of the total poor population and 42 percent of the extreme poor. More strikingly, poverty among indigenous people accounts for more than 60 percent of the national extreme poverty gap. In nonindigenous rural areas, half of the population is poor. The country has thus one of the highest indexes of inequality (a Gini coefficient of 0.47) in the region and the world, with the richest 20 percent of the population responsible for half of the country’s total consumption.

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Total</th>
<th>Extreme</th>
<th>Non-Extreme</th>
<th>Non-Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Incidence (percent)</strong></td>
<td>100.0</td>
<td>32.7</td>
<td>14.4</td>
<td>18.3</td>
<td>67.3</td>
</tr>
<tr>
<td><strong>Number of people (thousands)</strong></td>
<td>3,334</td>
<td>1,090</td>
<td>481</td>
<td>609</td>
<td>2,244</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Total</th>
<th>Extreme</th>
<th>Non-Extreme</th>
<th>Non-Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Incidence (percent)</strong></td>
<td>100.0</td>
<td>36.8</td>
<td>16.6</td>
<td>20.2</td>
<td>63.2</td>
</tr>
<tr>
<td><strong>Number of people (thousands)</strong></td>
<td>3,063</td>
<td>1,128</td>
<td>509</td>
<td>620</td>
<td>1,935</td>
</tr>
</tbody>
</table>

Sources: Encuesta de Niveles de Vida 2003, 2008; MEF and Instituto Nacional de Estadística-Contraloría General de la República.
34. **Panama is making steady progress on gender equality as measured by education, health, and labor force participation indicators.** Progress toward gender equality from a legal and institutional standpoint has also been significant. In terms of human capital accumulation, women have surpassed men in both secondary and tertiary education achievements. This trend is common in Central America (with the exception of El Salvador and Guatemala), but it is especially strong in Panama. Younger generations of women are now more likely than their male counterparts to complete secondary school. In addition, the effects of government programs promoting equal access to economic and productive resources are now becoming more evident. While the ratio of female to male labor force participation remains slightly below the average for upper-middle-income countries and far below the world average, it is improving quickly.

35. **While social outcomes and access to services have improved, there is a need for improved efficiency and effectiveness in social expenditures.** Life expectancy has increased significantly over the years; however, malnutrition remains a major challenge, particularly in indigenous areas, where 62 percent of children under five are chronically malnourished compared to 11 percent in urban areas. According to the latest poverty data (2008), the associated costs of schooling continue to represent a significant share of poor household budgets, standing at approximately 8 percent for the first tercile (compared to 6 percent on average for the second tercile, and 5 percent for the last tercile). Average years of schooling among adults have increased significantly, yet there are major socioeconomic and ethnic differences in school enrollment in secondary education. For example, while in the urban province of Colón, the secondary net enrollment rate was 70.8 percent in 2008, in the Ngöbe-Buglé and Kuna Yala indigenous areas, it was only about 38.3 percent and 32.3 percent, respectively. A qualitative study carried out on the effectiveness of Red de Oportunidades in three indigenous Comarcas (regions) was carried out in 2009 and noted that overall indigenous perceptions of the program are positive and they would like to see it expanded. At the same time, the study presents several specific recommendations on how the program could make further sociocultural adaptations to improve its effectiveness. In terms of the quality of basic education, there are also significant challenges to overcome. In a recent regional student learning assessment (SERCE), Panamanian primary school students in third and sixth grade scored well below the average among the 16 participating countries, ahead only of the Dominican Republic and Guatemala. Access to water and sanitation services has improved: the Government estimates that 84 percent of the total population has access to potable water through connections, but this rate is much lower in rural areas.

36. **To address these challenges, the Martinelli Administration has designed a social strategy that aims to reduce poverty and social exclusion and create opportunities for all.** The social strategy has two main components: human capital formation and social inclusion. The IADB is working closely with the Government of Panama in the area of human capital formation, while the Bank is providing support primarily on the social inclusion strategy, particularly in the areas of health and social protection. The introduction of two social protection programs and the expansion of the conditional cash transfer program represent key positive efforts by this Government.

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14 See “Plan Estratégico de Gobierno 2010–2014.”
III. THE GOVERNMENT’S PROGRAM AND PARTICIPATORY PROCESSES

37. **Panama has a comprehensive and integrated disaster risk management (DRM) program.** As part of the GoP’s efforts to implement a disaster risk reduction strategy, three key sector policy and institutional actions have been implemented in the last several months: (a) the Comprehensive Disaster Risk Management National Policy (Política Nacional de Gestión Integral de Riesgo de Desastres, PNGIRD) has been adopted; (b) the Disaster Risk Management National Plan 2011-2015 (Plan Nacional de Gestión de Riesgo de Desastres 2011-2015, PNGR), following an ample consultation process among key stakeholders and alignment with the new PNGIRD, has been adopted by SINAPROC and made effective for implementation; and (c) a proposal has been furnished to Panama’s Executive Branch (for its approval) to expand the functions and responsibilities of the Ministry of Economy and Finance’s Investment, Concessions, and Risk Department (DICRE). These strategic actions consolidate the National Civil Protection System (Sistema Nacional de Protección Civil, SINAPROC) created by Law No. 7 of February 11, 2005, and provide strategic guidelines and better define roles and responsibilities for a systemic approach to disaster risk reduction in the country. The legal authority for the country’s disaster risk management, including emergency management and disaster response, remains in SINAPROC. Facilitated by these new policies, the risk financial strategy is also evolving, and this DPL with a CAT DDO complements other risk financial tools conceived by the Panama authorities, and will support the existing DRM institutional and legal frameworks.

38. **The GoP recognizes the need to become better prepared for extreme natural phenomena, and more frequent and intense floods and droughts,** as evidenced by the nationwide state of emergency declaration as a result of the extensive flooding during the rains in late December 2010. The excessive rainfall caused major floods and forced the temporary closing of the Panama Canal (see Box 2).

39. **Key DRM achievements by the GoP include the development of a National Platform for Disaster Risk Reduction (NPDRR) in December 2005.** After the global adoption of the Hyogo Framework for Action (HFA) in 2005, Panama was the first country in the Central American region to develop a NPDRR. The development of the NPDRR contributed to partially filling the policy definition gaps in Law 7, by providing a participatory space for the members of SINAPROC to define strategic guidelines around the five priorities of the HFA, helping to clarify each member’s areas of expertise and roles, and incorporating the regional priorities set by the Coordinating Center for the Prevention of Natural Disasters in Central America (Centro de Coordinación para la Prevención de los Desastres Naturales en América Central, CEPREDE McNAC).
Box 2: The Government of Panama’s Response to the Emergency Caused by Heavy Rains during December 2010

The Situation: From November to December 2010, heavy rains affected Panama, producing floods, water surges, and landslides in the Provinces of Darién, Colón, Eastern and Western Panama, and the Comarcas of Kuna Yala and Emberá.

The Impact: Early assessments from the National Civil Protection System of Panama (Sistema Nacional de Protección Civil, SINAPROC) reported that in the first week of December, 254 houses were affected. The Changuinola, Sixaola, and Teribe Rivers overflowed in Bocas del Toro Province. In Darién Province, at least 398 homes were damaged. In the Province of Los Santos, around 300 homes were affected by the overflowing of the Tonosí River. According to the Red Cross, the rain and floods ruined large areas of farmland across the country, which is expected to have a negative impact on local food production and on the economic situation of the affected families.

SINAPROC reported 10 fatalities, with an estimated 16,866 individuals affected and 1,588 persons relocated to 26 shelters. The torrential rainfall caused damage to the transport infrastructure, housing, agriculture, and environment sectors, and economic losses, including loss of revenue by the unscheduled suspension of transit operations across the Panama Canal. Moreover, 17 hours of prolonged heavy rain forced the closing of the Panama Canal for only the third time since its opening in 1914, and the first time because of flooding. It also affected the provision of safe drinking water to neighborhoods in and around Panama City, and forced the suspension of the school year in the affected areas.

Government Agencies Involved in Responding to the Emergency were: (a) SINAPROC, responsible for overall coordination of the Government’s response to the emergency and for search and rescue operations; (b) MINSA, which activated its Emergency Health Operations Centers (CODES), carried out housing sanitation activities, and provided medical care to victims in the affected areas; (c) the Institute of Social Security’s National Disaster Management Department (Departamento Nacional de Gestión de Desastres, DÉNAD), provided medical care to the sheltered population in the affected areas; (d) the Ministry of Public Works (MOP), which rehabilitated damaged roads; (e) the National Police and Naval Air Service, which was responsible for evacuation and transportation of humanitarian aid; (f) MIVIOT, responsible for assessing damage to homes and relocating people to shelters; (g) Office of the First Lady, in charge of distribution of humanitarian aid to the affected communities; (h) the Ministry of Education (MEDUCA), which ordered suspension of the school year in Darién and Kuna Yala to allow use of school facilities as temporary shelters; and (i) the MEF, which approved disbursement of emergency funds to handle the response.

Resource Allocations for Emergency Response and Rehabilitation after the December 2010 Floods.

Source: Ministry of Economy and Finance, 2010
Policy Framework

40. The recent enactment of the PNGIRD is considered a milestone in the evolution of the disaster risk reduction (DRR) agenda in the country. A multisector participatory process, which culminated in late 2010, gave birth to the PNGIRD, which was enacted by Executive Decree No. 1101 of December 30, 2010. The PNGIRD (see Box 3) was prepared under the guidance of SINAPROC with the participation of relevant government and nongovernmental stakeholders, and it is fully aligned with the Central American Comprehensive Disaster Risk Management Policy (PCGIR).

Box 3: The Comprehensive Disaster Risk Management National Policy (PNGIRD)

The PNGIRD establishes the policy grounds for fostering a more integral Disaster Risk Management (DRM) Program in the country associated with natural and technological hazards. The PNGIRD is based on the strategic directions set forth by the Central American Comprehensive Disaster Risk Management Policy (PCGIR), approved at the XXXV Summit Meeting of Heads of the Central American States, June 29–30, 2010, in Panama. The PCGIR represents the major outcome of a comprehensive and thorough review of the policy needs and gaps undertaken by the Central American countries, in the context of the Bank-supported Mitch +10 forum (with active participation of GoP representatives). The adoption of the PNGIRD profited from the consultation processes during preparation of the PCGIR, and the Mitch +10 forum, expanded through a highly participatory process carried out by Panama’s National Platform for Disaster Risk Reduction (NPDRR) under the general guidance of SINAPROC. This process involved several technical and consultative meetings during 2010, concluding with the endorsement of a policy proposal in a meeting convened by the NPDRR in September 2010, with broad participation of national stakeholders, representing government agencies, NGOs, and representatives of civil society organizations, as well as regional and international DRM experts, including CEPREDENAC, the United Nations International Strategy for Disaster Reduction (UNISDR), and the World Bank.

The PNGIRD introduces and endorses the notions of prospective and corrective DRM, and explicitly identifies five strategic pillars to guide Panama’s DRR goals:

**Pillar 1**: Targets DRR of public investments, clearly identifying the Ministry of Economy and Finance (MEF) role and responsibility for developing financial mechanisms to reduce the vulnerability of the portfolio of public investments by introducing DRR considerations into the investment planning processes, and developing mechanisms for financial protection. It identifies, within the MEF, the Directorate for Investment Programming and the recently created Directorate of Investment, Concessions, and Risks (Dirección de Inversiones, Concesiones y Riesgos del Estado, DICRE) as key drivers for these actions.

**Pillar 2**: Focuses on the social development and compensatory measures to reduce vulnerability, identifying concrete tasks for the Ministry of Education, Ministry of Housing and Land Use Planning, the National Environmental Authority, and the Ministry of Health, to further DRR through education, land use planning, and vulnerability reduction of critical infrastructure, such as schools and health care facilities.

**Pillar 3**: Targets environmental dimensions of DRM, particularly, adaptation to climate change and water resources management. The Environmental Authority and other key institutions related to the management of hydrometeorological information are identified as key drivers for this pillar.

**Pillar 4**: Focuses on governance and territorial management, stressing the relevance of local DRM and the urban dimensions of risk, along with the pivotal role of local authorities.

**Pillar 5**: Targets the disaster management and recovery processes, identifying key actions to be taken by the General Directorate of SINAPROC at the national and subnational levels.
41. The country’s Disaster Risk Management National Plan (PNGR) and the National Emergencies Plan are developed and implemented by the leading DRM authority in Panama, SINAPROC. The 2011-2015 PNGR is considered to be the main planning tool for the implementation of PNGIRD. The National Platform for Disaster Risk Reduction (NPDRR), under the coordination of the General Directorate of SINAPROC, facilitated in the first half of 2011, a broad stakeholder dialogue to revise and update the PNGR in order to adapt this key document according to the PNGIRD’s guidelines. This participatory and inclusive process overcomes the limitations of a previous version of the PNGR and represents a major planning undertaking by the GoP to implement the PNGIRD. The main objective of the 2011-2015 PNGR is to define operational disaster risk reduction goals and specific actions to be undertaken, during the next four years, by key line ministries and other GoP and civil society stakeholders, focused on six thematic areas: (a) public investment planning processes and financial protection; (b) land use and governance; (c) risk identification and promotion of a culture of prevention; (d) environmental management and adaptation to climate change; (e) disaster preparedness, emergency response and early recovery; and (f) strengthening of the legal and institutional frameworks for DRM. Another planning tool is the National Emergencies Plan (NEP) which complements the PNGR and focuses on emergency management and first response by defining roles, responsibilities, and general procedures for: (a) institutional preparedness and response; (b) establishing an inventory of resources; and (c) coordinating operational activities and assessments in order to safeguard life, protect property, and minimize the negative impacts of adverse natural events. SINAPROC is currently updating the subnational emergency protocols which will be used as the input for updating the NEP. The NPDRR has also participated in the development of CEPREDENAC’s regional Multi-Year Action Plan 2010-2013 (Plan Pluri-anual 2010-2013).

42. The GoP has also included climate change adaptation measures as a policy priority within its Government Strategic Plan 2010–2014 (Plan Estratégico de Gobierno 2010–2014, PEG), and emphasizes the importance of mainstreaming environmental protection in the sectoral planning processes. The PEG investment strategy considers activities related to the impact of climate change on the country’s natural resources, including: (a) implementation of climate change adaptation and mitigation measures, (b) capacity building in regards to climate change issues, and (c) the implementation of an action plan for climate change in Panama. One of the five pillars of the adopted PNGIRD explicitly addresses Climate Change Adaptation (CCA) as linked to disaster risk reduction (DRR) objectives. The 2011-2015 PNGR will allow and promote harmonization and identification of synergies between the disaster risk reduction and CCA national agendas.

Institutional Framework

43. SINAPROC is responsible for coordinating DRM in Panama as the highest-ranking authority in the event of a natural catastrophe or man-made emergency. SINAPROC is also charged with executing the actions, regulations, and directives toward the removal or reduction of the impacts of disasters on human life, assets, and society. SINAPROC functions include the implementation of best practices and known protocols to respond to potential or materialized emergencies and its structure includes a modern Emergency Operations Center (Centro de Operaciones de Emergencia, COE) in charge of coordinating all aspects of emergency response (see figure 2). The COE comprises the
Ministry of Public Works (MOP), the Office of the First Lady, Ministry of Health (MINSA), National Police, Naval Air Service, National Border Service, Ministry of Housing and Land Use Planning (MIVIOT), Ministry of Agriculture and Livestock Development (MIDA), Ministry of Education (MEDUCA), Fire Department, Social Security Administration (CSS), Terrestrial Traffic and Transportation Authority (ATTT), and the Unified Emergency System (SUME 911). Once activated, the COE becomes responsible for coordinating emergency response operations among SINAPROCE’s different operative levels (corresponding to the country’s national and administrative subdivisions: Provincial-Comarca, and corregimientos), and among the different governmental and nongovernmental agencies involved in emergency response in the country.

**Figure 2: National Civil Protection System (Sistema Nacional de Protección Civil, SINAPROC)**

The National Platform for Disaster Risk Reduction (NPDRR) is playing an increasingly important role in mainstreaming DRM activities in the country. Under the leadership of SINAPROC, the GoP established in 2002 the Coordinating Center for the Prevention of Natural Disasters in Central America (CEPREDENAC) National Commission. In December 2005, the CEPREDENAC National Commission was officially recognized as Panama’s NPDRR, according to the guidelines of the Hyogo Framework for Action (HFA). In October 2010, the NPDRR was expanded by incorporating additional members of Panama’s civil society, government agencies, and NGOs, highlighting the country’s commitment to mainstream and advance its disaster risk management program, through a more proactive and participatory mechanism. As mentioned, the NPDRR played a

15 Panama’s CEPREDENAC National Commission was established by Executive Decree No. 402 of November 12, 2002. The National Commission is composed of the General Director of SINAPROC, who presides; and the ministers of Agricultural Development; Economy and Finance; Education; Foreign Affairs; Health; Housing; Public Works; and Social Development; the National Environmental Authority (ANAM); the Social Security Administration (CSS); the Faculty of Civil Engineering of the Technology University in Panama; the Institute of Geosciences of the University of Panama; and the Panama Canal Authority.
key role in the development and endorsement of the PNGIRD, and the reshaping of the 2011-2015 PNGR. Another key function of the National Platform is the production of a biannual implementation progress report on the HFA. These reports have helped set a baseline to measure the progress on the five HFA priority actions over time, through a participatory process facilitated by the NPDRR. The NPDRR is engaged in further discussing the expansion of its membership to allow the participation of new civil society and private sector stakeholders that have been active in previous and ongoing consultations.

45. The Health Sector in Panama has already taken important steps towards preparedness and emergency management associated to sanitary issues triggered by natural hazards and man-made disasters. Under the leadership of SINAPROC, a number of capacity building activities, mitigation actions and emergency response plans have been developed for the health sector, including: (a) the 2007 Avian Flu and Influenza Pandemic Hazard Integrated Strategic Plan (Plan Estratégico Integrado MINSA-MIDA-ANAM-CSS ante las Amenazas de la Influenza Aviar y la Pandemia de Influenza), (b) infrastructure assessment training offered to engineers and architects to set up a task force that could actively participate in the Safer Hospitals Initiative, with the support of the Pan American Health Organization (PAHO), and (c) an initiative to improve information sharing at all levels through on-line tools, in partnership with the Regional Disaster Information Centre for Latin America and the Caribbean (CRID). MINSA has a specialized body to assist SINAPROC’s COE to handle health-related emergencies, the Health Institutional System for Emergencies and Disasters, SISED. In addition, the Social Security Administration (Caja del Seguro Social, CSS) also assists COE through its National Department for Disaster Management (DENADE). SISED and DENADE maintain close coordination with other relevant ministries including MIDES, MIDA and ANAM, as well as with regional organizations and the international cooperation. These efforts need to be further strengthened and operationalized, particularly for emergency preparedness, mitigation and post disaster recovery activities through for example budget allocations and protocols for coordinated action.

46. Panama is an active participant in regional and international DRM forums, including CEPREDENAC and the United Nations International Strategy for Disaster Reduction (UNISDR). In addition, as part of its proactive DRM agenda, the GoP signed on June 30, 2010, the Central American Comprehensive Disaster Risk Management Policy (PCGIR) adopted by the Presidents of Central America. Panama was the first country in the region to develop its own national policy for DRM based on the PCGIR.

47. Panama has adopted the recommendations and priority actions of the “Hyogo Framework for Action 2005–2015: Building the Resilience of Nations and Communities to Disasters.” The HFA was formulated as a comprehensive, action-oriented response to international concerns about the growing impact of disasters on individuals, communities, and national development. The HFA was adopted by 168 governments at the World Conference on Disaster Reduction held in Kobe, Hyogo Prefecture, in 2005. The GoP adopted the five HFA Priority Actions16 as guidelines for organizing and monitoring the efforts of its National Civil Protection System (SINAPROC), enhancing the country’s DRM capacity.

16 HFA Priority Actions Areas are: (a) ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation; (b) identify, assess, and monitor disaster risks and enhance early warning; (c) use knowledge, innovation, and education to build a culture of safety and resilience at all levels; (d) reduce the underlying risk factors; and (e) strengthen disaster preparedness for effective response at all levels.
The GoP participates in a number of innovative programs to support better DRM, such as the Central American Probabilistic Risk Assessment (CAPRA). The CAPRA initiative is led by CEPREDENAC, in collaboration with Central American governments, the UNISDR, the IADB, and the World Bank. CAPRA is an innovative knowledge product that uses open-source information to create a comprehensive approach to risk management and is mainly funded by the Global Facility for Disaster Reduction and Recovery (GFDRR). CAPRA applications consist of a risk map tool, a cost-benefit analysis tool for risk prevention or mitigation, and programs that assist in the design of risk financing strategies. CAPRA supports the decision-making process in risk reduction, public and private investments, emergency management, and financial risk transfer strategies, among others. With the Bank support, the GoP will carry out initial exercises using CAPRA to quantify probable maximum losses for public and private buildings and for other public infrastructure, including schools and hospitals, in the event of an earthquake in the city of David. The experience in David will serve as a pilot to design future CAPRA applications focused on floods and other natural hazards. This quantification of the country exposure to earthquakes, storms, and flooding provides critical input for designing risk retention and risk transfer strategies that the GoP might implement in the future.

Regulatory Framework

The State of Emergency and the procedure for a Declaration of a State of Emergency are both established by Law 7 of February 11, 2005. Pursuant to Law 7 of February 11, 2005 SINAPROC is entitled to formulate a recommendation to the Executive Power for the declaration of a State of Emergency. However, even though SINAPROC can make such recommendation, this is not a requirement for the declaration of a State of Emergency, which has to be made, through an Executive Decree (Decreto Ejecutivo) by the Executive Branch.

Since 2003, the GoP has made fifteen Declarations of a State of Emergency to help respond to adverse natural events. During 2003–10, the GoP made fifteen declarations of State of Emergency. In December 2010, the GoP declared a State of Emergency as a result of excessive rainfall and widespread flooding that affected many areas across Panama. The other fourteen declarations correspond to events that affected specific regions of the country. All fifteen declarations were enacted by the Executive Power, as local governments do not have the authority to do so. The main triggers for these declarations have been hydrometeorological events (excessive rainfall and flooding).

The GoP is making efforts toward enhancing the regulatory framework related to disaster reduction, most notably to enforce the mandatory building code. Panama’s current construction norms are based on the State of California building code. Even though the norms are considered technically adequate for Panama, there are an unknown number of buildings believed to be noncompliant. Noncompliance with the code is usually common in rural areas and unplanned urban developments.

Probable maximum losses, a term used in the insurance industry, is generally defined as the anticipated value of the largest loss that could result from the destruction and loss of use of property, with the normal functioning of passive protective features (http://en.wikipedia.org/wiki/Probable_maximum_loss, accessed January 7, 2011).
Risk Financing

Investment

52. DRM investments in prevention, mitigation and emergency response, to address the economic impacts of adverse natural events, have increased over time. This was particularly evident during 2009–10, due to the negative effects of unusually heavy rainy seasons that greatly affected the country’s already fragile transport infrastructure (see figures 3 and 4). The most significant investments have been reported at the Ministry of Public Works, the Office of the President’s National Aid Program, and the Ministry of Agriculture and Livestock Development as described in the following paragraphs.

Figure 3: Government of Panama’s DRM Investments
2006–September 2010
(in US$ millions)

53. On average, for the last five years, the Ministry of Public Works (Ministerio de Obras Publicas, MOP) DRM investments represented 43 percent of the country’s DRM investments. MOP’s budgeted DRM investments include, among others, river dredging and realigning, to reduce the risk of flooding during the rainy season.

54. MOP’s main emergency investment activities are related to the rehabilitation of roads and bridges. As of March 2011, a group of MOP technical experts has been preparing technical studies to prioritize road and bridge prevention and mitigation efforts. MOP’s DRM prevention and mitigation investments have increased noticeably during the last three years (see figure 5).
55. **The Office of the President’s National Aid Program (PAN) includes resources earmarked for emergency response.** On average, for the last five years, PAN DRM investments represented 22 percent of the country’s budgeted DRM investments (PAN is exempted from the standard procurement procedures, according to the provisions established in article 284 of Law 75 of November 2010).

56. **The budget of the Ministry of Agriculture and Livestock Development (MIDA) includes resources earmarked for emergency response.** On average, for the last five years, MIDA DRM investments represented 16 percent of the country’s DRM investments. According to the provisions of Law 24 of 2001, these resources are allocated as contingent loans to agricultural and livestock producers affected.

**Risk Retention**

57. **Reserves funds. The Panamanian Housing Assistance Fund (created by Law 93 of October 4, 1973, and amended by Law 29 of December 12, 1986) is earmarked for addressing housing needs resulting from natural catastrophes.** Managed by MIVIOT, the Fund’s resources have been mainly used to cover temporary housing expenses incurred by people affected by past natural disasters, and to provide humanitarian aid. The Fund’s yearly budget allocation is about US$3 million. Even though Law 93 mandates several sources for capitalization of the Fund, only the tax on horizontal real estate transfer transactions—amounting to about US$300,000 per year—is being collected in a systematic way.
58. **Other reserves funds.** The GoP is exploring a strategy to develop a sovereign fund; in principle, such fund is envisaged as an instrument for macroeconomic stabilization. This new instrument, if implemented, may become an important component of the GoP’s financial strategy for reducing its fiscal vulnerability against the occurrence of external shocks, including catastrophes caused by natural hazards.

59. **As prescribed by Law 7 of 2005, SINAPROC is authorized to request the support of government agencies involved in all phases of DRM.** For this purpose, public agencies may make budget reallocations to obtain the necessary financial resources to perform the emergency preparedness, emergency response, and emergency recovery and rehabilitation activities, as directed by SINAPROC. Government agencies summoned by SINAPROC to participate in an emergency response can request a reimbursement of funds spent during the emergency from the Ministry of Economy and Finance.

60. **SINAPROC is authorized to request up to US$1 million to finance immediate emergency response activities, upon the Cabinet Council’s declaration of a state of national emergency.** Such resource allocation is allowed according to the provisions established in article 256, paragraph 1, of section 4 of the Law 75 of November 2010 (Law of Approval of the National General Budget). Resources are assigned by the Cabinet Council to different sectors in accordance with their specific needs.

61. **The Legislative Body can approve budget increases upon MEF’s request.** Law 75 of November 2010 allows through the figure of additional resources (créditos extraordinarios) increasing the general budget.

62. **Temporary suspension of the financial limits (non financial public sector deficit in respect to nominal GDP) contained in Law 34 of 2008, the Social and Fiscal Responsibility Law, to bridge the financial gap caused by disaster is allow by Law.** To cover the financial requirements of US$149.3 million to repair damaged infrastructure and restore economic activity (including risk reduction activities in the agricultural sector) in the areas affected by the floods occurred in December 2010 the GoP asked the Legislative body for a temporary suspension of the financial limits contained in the Social and Fiscal Responsibility Law to bridge the financial gap caused by the mentioned disaster.

63. **The risk retention strategy is focused on reassigning resources.** This may have an adverse impact on the implementation of ongoing development and poverty reduction programs, unless other instruments such as contingency lines of credit like the DPL with a CAT DDO are incorporated in the strategy.

**Risk Transfer**

64. **The Ministry of Commerce and Industry’s Resolution No. 6 of December 27, 1991, established the Manual of Insurance Premiums Applicable to the State, for the insurance of government assets, and government operations.** The insurance industry in Panama is regulated by Act No. 59 of July 29, 1996, which makes no distinction between private and state insurance. Cabinet Decree No. 17 of June 5, 1991, established new management guidelines for all estate insurance policies—ordering the Government to be treated as a single client for insurance policy acquisitions—and ordered the creation of a committee, later named by Executive Decree No. 32, 1996, the State Insurance Commission
Comisión Permanente de Seguros del Estado, CSE). The CSE is composed of an MEF representative along with representatives of the Insurance and Reinsurance agency (Superintendencia de Seguros y Reaseguros) and the National Comptroller’s Office (Contraloría General de la República, CGR). The CSE is in charge of reviewing and making recommendations about the general and special conditions, and applicable premiums, for all public sector insurance policies. The CGR has the authority to demand government agencies to comply with their responsibility to, on a yearly basis, review and renew their respective insurance policies with the insurance agency selected for managing the Government’s coinsurance scheme. Given that a tender procedure is required for buying individual insurance, the coinsurance scheme allows for the reduction of administrative costs and, at the same time, improves the quality of service to public entities.

65. The CGR has assumed the role of the Government’s risk manager—even though such a role is not explicitly established by law—without establishing a risk transfer program based on the needs of each institution. The CGR uses the State Insurance Manual, created in 1991 with the support of the CSE, which has focused its participation on reviewing and updating policy premiums, without assessing their impact on the quality of service or on the level of financial protection provided to the Government.

66. The creation of the Directorate of Investment, Concessions, and Risks (Dirección de Inversiones, Concesiones y Riesgos del Estado, DICRE) under MEF, reflects the GoP’s new vision, where MEF is positioned as the Government’s agency in charge of designing risk management programs for the protection of government assets, according to the government agencies’ generic and specific insurance needs. Aiming at mainstreaming the disaster risk financing functions of the MEF—as envisaged in the PNGIRD—the GoP is engaged in assessing the necessary amendments to the DICRE legal authority, which will allow the DICRE to fulfill its expanded roles. Among the new roles envisaged for the DICRE is its participation, representing MEF’s interests, in future activities related of the National Platform for DRR. Close coordination of the Directorate with SINAPROC is essential for streamlining disaster risk financing in the national disaster risk management strategy.

67. Insurance of private housing is mainly related with mortgage credit. According to Fitch (2011) the insurance sector represents 3.4% of GDP. Fire and multi-risk branch represents 8% of the total insurance market. The economic growth of the country is increasing housing projects, which are expected to increase the participation of the fire and multi-risk branch due to requirements for subscribing mortgage credit. Insurance of private housing will reduce the fiscal vulnerability of the government given that, in case of a disaster, the government will be able to assign more resources to the most vulnerable population. Consequently, it is important for the government to promote the insurance of private dwellings.

68. The addition of a DPL with a CAT DDO, along with the Public Assets Insurance Scheme and the Panamanian Housing Assistance Fund, would make a more robust risk financing strategy. Having a risk financing strategy in place will allow the country to be better prepared for financing—in the case of a catastrophic event—the immediate emergency response, and the rehabilitation and reconstruction phases. When immediate liquidity is not available, the result can be expensive debt instruments, diversion of resources from ongoing development programs, or slow and insufficient reconstruction financing. The current financial strategy is summarized in table 4.
Table 4: Government of Panama’s Financial Strategy

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Components</th>
<th>Executing/Approving entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Transfer</td>
<td>Insurance of private dwellings (mandatory for dwellings with mortgage credit)</td>
<td>Private owners</td>
</tr>
<tr>
<td></td>
<td>Insurance of public assets (mandatory)</td>
<td>Government agencies, through a coinsurance scheme managed by the insurance company ASSA.</td>
</tr>
<tr>
<td></td>
<td>DPL with CAT DDO</td>
<td>MEF will ask the disbursement</td>
</tr>
<tr>
<td></td>
<td>Temporary suspension of the financial limits contained in Article 11 of Law 34 of 2008, the Social and Fiscal Responsibility Law</td>
<td>National Assembly upon MEF’s request.</td>
</tr>
<tr>
<td></td>
<td>Increase of the general budget through additional resources (créditos extraordinarios)</td>
<td>National Assembly upon MEF’s request.</td>
</tr>
<tr>
<td>Risk Retention</td>
<td>US$1 million allocation to finance immediate emergency response</td>
<td>MEF upon SINAPROC’s request (after a declaration of a State of Emergency).</td>
</tr>
<tr>
<td></td>
<td>Reimbursement of funds spent during the emergency</td>
<td>MEF upon government agencies request (which will assign resources to attend the emergency upon SINAPROC request).</td>
</tr>
<tr>
<td></td>
<td>Budget reallocations</td>
<td>Government agencies upon SINAPROC request.</td>
</tr>
<tr>
<td></td>
<td>Other possible funds (emergency fund, sovereign fund, etc.)</td>
<td>MEF.</td>
</tr>
<tr>
<td></td>
<td>Reserves Funds. Panamanian Housing Assistance Fund</td>
<td>MIVIOT.</td>
</tr>
</tbody>
</table>

69. It is important that the GoP continues developing its national disaster risk financing strategy, as there are gaps in its financial protection against adverse natural events. The GoP should be encouraged to complete quantification of its probable maximum loss from natural disasters so that it can better understand its fiscal risk exposure. This quantification will help the GoP to better understand what layer of risk the DPL with a CAT DDO addresses and whether it should consider additional risk transfer instruments (such as parametric insurance or cat bonds) for risk layers above the DPL with a CAT DDO (low frequency, high severity events) in the future. In addition, the establishment of other reserves funds could be an important risk retention tool for bottom layers of the GoP’s exposure (high frequency, low severity events); a designated envelope for natural disasters could be considered to ensure adequacy of available reserves throughout the fiscal year.
According to the 2009 IADB Disaster Deficit Index, Panama would not have enough contingency funds—or access to sources of financing—to face the losses and to cover the replacement of the capital stock affected due to the occurrence of a 100-year or 500-year extreme event (probability of occurrence of the event of 1 percent in any year). The same index also estimated that, in the case of the occurrence of a 50-year maximum event, the country would be able to cover rebuilding costs using its own financial resources complemented with other financing sources. Accordingly, the MEF’s Directorate of Investments, Concessions, and Risk is exploring the feasibility of designing risk retention and risk transfer strategies, which would require, among other inputs, quantifying probable maximum losses and expected annual losses for public and private buildings and for public infrastructure in the event of an earthquake or hurricane.18 The CAPRA initiative has been proposed as a viable platform, which can be customized to address the country’s specific knowledge needs on risk and hazards.

IV. BANK SUPPORT TO THE GOVERNMENT'S PROGRAM

A. LINK TO COUNTRY PARTNERSHIP STRATEGY

The proposed Project is fully consistent with the World Bank Group’s Panama Country Partnership Strategy (CPS) for FY2011–FY2014 (Report No. 54265-PA) discussed by the Executive Directors on September 21, 2010. The objective of the CPS is to support the GOP’s efforts to improve Panama’s productive capacity and reduce poverty. The CPS aims to provide Panama with flexible, demand-driven, and focused assistance to achieve its development goals. The shared strategy between Panama and the World Bank Group includes reducing poverty and inequality by expanding opportunities for the poor, particularly the most vulnerable, via sustainable and broad-based growth.

The CPS supports Panama’s 2010–2014 Government Strategic Plan (PEG) in its two main axes, economic growth, greater opportunities for all, and a cross-cutting axis of improving public sector efficiency and transparency. The CPS will support the Government’s economic growth strategy through the first pillar of economic growth that builds on the country’s competitive advantages. This pillar will support the Government in enhancing the environment for investment and productivity. The second CPS pillar generating opportunities for all aims to support the Government’s social strategy in two areas of generating human capital and improving social inclusion. The last pillar of the CPS aims to enhance public sector transparency and efficiency by supporting both the introduction of results-based budgeting and financial management, procurement, and tax reforms.

The specific CPS outcome to which this operation would contribute is the improved government capacity to respond to disasters and climate change under implementation of a new disaster risk management and climate change adaptation plan.

18 “Potential losses are calculated using a model that takes into account different hazards (which are calculated in probabilistic form according to historical data on the intensity of past phenomena) and the actual physical vulnerability of the elements exposed to such phenomena” (“Indicators of Disaster Risk and Risk Management. Program for Latin America and the Caribbean, Summary Report,” Technical Notes No. IADB-TN-169m IADB, September 2010).
The CPS specifically identifies managing the risk of natural disasters and adaptation to climate change as selected key programs and areas for Bank support. An expected result of the Bank’s support to Panama is the development of enhanced capacity to manage climate change and responsiveness to natural disasters. The CPS explicitly proposes a DPL with a CAT-DDO operation in FY2012, which would offer Panama a rapid source of funds in the event of a major natural disaster, enabling a quick response to address emergency needs. This instrument would be accompanied by the further implementation of the country’s comprehensive Disaster Risk Management Program and technical support activities such as the Central America Probabilistic Risk Assessment (CAPRA).

B. COLLABORATION WITH THE IMF AND OTHER DONORS

74. During the preparation of the DPL with a CAT DDO, the Bank coordinated with several key partners working on disaster risk management initiatives in Panama and Central America, including the Central American Coordination Center for Natural Disaster Prevention (CEPREDENAC), the United Nations International Strategy for Disaster Reduction (UNISDR) in Central America, the Inter-American Development Bank (IADB), the United States Agency for International Development (USAID), the European Union (EU), and Japan International Cooperation Agency (JICA). Key initiatives supported through these collaborations include the Central America Probabilistic Risk Assessment (CAPRA) and the Mesoamerican Environmental Information System (SIAM). Other ongoing initiatives supported by these partners that have been taken into account during the preparation of this operation are the IADB’s Mesoamerican Territorial Information System (SMIT), the DARA Initiative, the EU’s Regional Program for the Reduction of Vulnerability and Environmental Degradation (PREVDA), and the USAID/NASA-supported Regional Visualization and Monitoring System (SERVIR).

75. Throughout the drawdown period, the GoP and the Bank will maintain a close policy dialogue on disaster risk management issues through both ongoing initiatives and proposed or planned new initiatives. Close coordination will also be maintained with other international organizations actively assisting Panama in the area of disaster preparedness, emergency response, and post-disaster recovery and mitigation, including specialized agencies of the United Nations System, the IADB, and the USAID Office of Foreign Disaster Assistance.

C. RELATIONSHIP TO OTHER BANK OPERATIONS

76. The Bank is already supporting Panama’s Disaster Risk Management Program through investment projects and technical assistance. Examples of activities of this nature under implementation are:

- Panama participates in the CAPRA initiative, funded by the Global Facility for Disaster Reduction and Recovery (GFDRR) and supported by the World Bank, the IADB, and UNISDR, to improve decision making and risk management through open-source, multihazard disaster risk analysis tools. The objective of this initiative is to strengthen Panama’s capacity to integrate risk information in its development planning process.
CAPRA provides technical assistance to national government agencies to better assess risk resulting from adverse natural events.

- **Metro Water and Sanitation Improvement Project (P119694)** and **Water Supply and Sanitation in Low-income Communities project (P108419)**. These two investment loans will increase coverage of reliable water supply and sanitation services, with a focus on the sustainability and efficient provision of the services. The first operation is targeted to urban areas, while the second one focuses on rural areas of Panama. During a catastrophe the poor and other vulnerable groups (such as indigenous people) are exposed to higher risk of suffering gastrointestinal illnesses as a result of a lack of safe drinking water and adequate sanitation. By improving access to safe drinking water and sanitation in a sustainable way to the poor and other vulnerable groups, they become better prepared to cope with emergencies. In addition, in the event of a catastrophe, a more efficient WSS provider is better placed to work faster to re-establish the service provision, especially water.

- **First Programmatic Fiscal Management and Efficiency of Expenditures Development Policy (P123255)**. The programmatic operation is designed to support the overall GoP objectives of strengthening fiscal management, enhancing transparency, improving the efficiency of public spending, and strengthening social programs. This operation will support the better targeting of the conditional cash transfer **Red de Oportunidades** (RdO). The RdO is considered to be a well-targeted social protection program that benefits the extreme poor (mostly indigenous people living within the Comarcas). To be effective, the country’s safety nets need to be in place before an external shock materializes. In Panama, the RdO beneficiaries database may be used to quickly identify vulnerable families that may require additional humanitarian aid after the occurrence of a catastrophe caused by an adverse natural phenomenon.

77. The CPS with Panama recognizes that the implementation of the GoP’s ambitious investment plan, and the operations proposed in the CPS, could be delayed due to a natural disaster. The DPL with a CAT DDO operation will strengthen the GoP financial position to bridge the liquidity gap that may emerge as a result of a natural disaster, reducing risk to the Bank’s portfolio of operations in the country and ensuring continuity of other GoP development and poverty alleviation programs.

D. LESSONS LEARNED

78. The design of this DPL with a CAT DDO takes into account the lessons learned from 25 years of Bank operations and programs in the area of disaster risk management, as reflected in the Independent Evaluation Group Report “Hazards of Nature, Risks to Development: An Evaluation of World Bank Assistance for Natural Disasters.”\(^{19}\) The report recommends that the Bank assist its most vulnerable clients to shift from focusing entirely on disaster response to implementing programs and policies for comprehensively managing disaster risk. The most important lessons from the more than 500 projects that were evaluated are described below.

79. **Disasters must be managed instead of being treated as exogenous shocks to development that cannot be proactively addressed.** This has been documented in a wide array of studies and is the underpinning of the Hyogo Framework for Action (HFA). Panama is aware that hazard risk is a manifestation of flawed development plans and that managing disaster risk is good practice in sustainable development.

80. **Disaster risk management is most efficient when based on adequate risk identification.** To support government programs that mainstream risk reduction, Panama participates actively in CAPRA and is developing detailed hazard maps at the municipal level. The available information in the country is used to support decision making and land use planning, and as an input for risk modeling and the design of projects for prevention and risk reduction.

81. **An ex-ante strategy for reconstruction financing is essential for faster recovery after a disaster event.** Absent this, the result has often been expensive debt instruments, diversion of resources from ongoing development programs, or slow and insufficient reconstruction financing. The proposed operation will strengthen the country’s risk financing strategy, thereby helping to minimize budget restructuring and ensure continuity in the implementation of development programs, including those financed by the Bank.

82. **Prevention pays and governments can take many actions to reduce disaster risk without incurring additional costs.** Prevention requires many actions, and some important ones are under government control. Some actions can be easily implemented with minimal or no additional cost to the government. For instance, governments can make information about hazards and risks transparent and readily accessible to the general public (by, for example, publishing maps of flood plains and seismic fault lines), allowing market forces to embed such risk information in the price of, for example, land and the setting of insurance premiums. Other no-regrets government actions include the provision of reliable public transport that allows people to move from unsafe to safer locations; and the reduction of deforestation, to prevent heavy rains from washing mud, rock, and debris into populated areas.

83. **It is important to secure the availability of a flexible source of funding to cover early recovery in case of a natural disaster.** The immediate availability of liquidity is critical for a government to reestablish critical services as fast as possible in the aftermath of a disaster event. This can help accelerate recovery and minimize interruption of economic activity and the associated loss of fiscal revenues, which is often the highest economic cost associated with disaster events, and secure critical public facilities such as those for health services. The Bank has experimented with various instruments to accelerate the availability of resources after major disasters, such as (a) the Organization of Eastern Caribbean States (OECS) Emergency Recovery and Disaster Management Program Project Adaptable Program Lending (APL) program (P117871) launched in December 1998, was organized as a

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20 The HFA was formulated as a comprehensive, action-oriented response to international concern about the growing impacts of disasters on individuals, communities, and national development. Based on a careful study of trends in disaster risks and on practical experience in disaster risk reduction, and subjected to intensive negotiations during 2004 and early 2005, the HFA was finally adopted by 168 governments at the World Conference on Disaster Reduction, held in Kobe, Hyogo Prefecture, Japan, January 18–22, 2005.

horizontal APL with a floating phase available in case of emergency; (b) the Colombia Disaster Vulnerability Reduction Program (DVRP-APL1) (P082429) of 2005 included a DPL with a CAT DDO of US$150 million; and (c) the Caribbean Catastrophe Risk Insurance Facility (CCRIF) (P105010 and P108058), launched in May 2007, has proven to be an efficient use of parametric insurance instruments to provide immediate liquidity to countries affected by adverse natural events. Each of these instruments was considered for the current operation; however, none proved as quick and flexible as the DPL with a CAT DDO that has been put to the test in neighboring countries including Colombia, Costa Rica, and Guatemala.

E. ANALYTICAL UNDERPINNINGS

84. The design of the proposed operation is backed by extensive analytical work in the field of disaster risk reduction conducted by GFDRR, the World Bank, IADB, and specialized agencies of the United Nations System, and has provided the basis for the dialogue with the GoP during the design of this DPL with a CAT DDO. The general framework for analysis and preparation of this operation is built on the findings from a number of key documents and publications as follows.

85. **The Hyogo Framework for Action.**22 This document, endorsed by the GoP at the World Conference for Disaster Reduction in 2005, provides the guidelines for comprehensive disaster risk management actions. The GoP used the framework’s recommendations as guidelines for organizing its National Civil Protection System.

86. **“Natural Disaster Hotspots, A Global Risk Analysis,” the World Bank.**23 This is a comprehensive analysis of the level of countries’ risk exposure to hydrometeorological and geotectonic hazards. The study found Panama to be 14th among countries most exposed to multiple hazards, based on land area exposed, and the 35th among countries with the highest percentage of total population considered at a “Relatively High Mortality Risk from Multiple Hazards.”

87. **The Global Assessment Report on Disaster Risk Reduction.**24 This assessment is a comprehensive review and analysis of natural hazards threatening humankind. The study concluded that disaster risk is increasing faster in low- and lower-middle-income countries with rapidly growing economies, and that countries with small and vulnerable economies are less resilient. While Panama is considered an upper-middle-income country, in the recent past its economy has been affected by external shocks, including those caused by natural hazards.

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88. “Natural Hazards, UnNatural Disasters. The Economics of Effective Prevention.”25 This report provides an approach that focuses on the economics of reducing the vulnerability to natural disasters, and presents examples from around the world that demonstrate that government investments in ex-ante measures, instead of solely in emergency response and recovery actions, can be more cost-effective. In line with this approach, the DPL with a CAT DDO is one of the ex-ante measures that the GoP is proactively adopting toward reducing its vulnerability to natural disasters, protecting, in turn, its economy.

V. THE PROPOSED OPERATION

A. OPERATION DESCRIPTION

89. The overall development objective of the proposed operation is to enhance the GoP’s capacity to implement its Disaster Risk Management Program for natural disasters.

90. The Development Policy Loan with a Catastrophe Deferred Drawdown Option (DPL with a CAT-DDO) is a relatively new financial product, which was approved by the Bank’s Board of Directors on March 5, 2008. The DPL with a CAT-DDO can help address Panama’s immediate liquidity needs in the aftermath of a catastrophic disaster. The DPL with a CAT-DDO is a flexible and prompt financial tool to address risks to which the country is prone. It will enable the GOP to focus on emergency response measures in the aftermath of a disaster rather than spend valuable time and resources for fund-raising activities. So far, there are five DPL with a CAT-DDOs approved by the World Bank Board in Costa Rica, Colombia, El Salvador, Guatemala, and Peru.

91. The GoP will be able to access funds from the facility upon the declaration of a state of emergency as a result of the occurrence of an adverse natural event. The maximum funding amount of a DPL with a CAT-DDO constitutes 0.25 percent of the national GDP of the country, or up to US$500 million. The GoP has requested a DPL with CAT-DDO in the amount of US$66 million. Loan pricing is in line with standard IBRD terms, with the exception of a 0.50-percentage-point front-end fee and a 0.25 percent renewal fee. The funds may be drawn down over a three-year period, which may be renewed up to four times for a total of 15 years. The signing of the DPL with a CAT-DDO is contingent upon Panama maintaining a sound macroeconomic policy framework and the existence of a disaster risk management program.

92. The DPL with a CAT DDO instrument is designed to be a quick and flexible source of financing. The instrument is particularly well placed to provide bridge financing

25 “Natural Hazards, UnNatural Disasters. The Economics of Effective Prevention,” World Bank and United Nations, 2010. Prepared under the technical coordination of the GFDRR, this report’s main findings are (a) a disaster exposes the cumulative implications of many earlier decisions, some taken individually, others collectively, and a few by default; (b) prevention is often possible and cost-effective; (c) many measures—private and public—must work well together for effective prevention; and (d) the exposure to hazards will rise in cities, but greater exposure need not increase vulnerability.
while other sources (for example bilateral aid, and emergency reconstruction loans) are being mobilized following the state of emergency (Box 4).

**Box 4: Catastrophe Risk Financing Strategy**

A risk financing strategy should differentiate between a range of higher-frequency/lower-cost events and lower-frequency/higher-cost events. Lower layers of risk (higher-frequency/lower-cost events) can generally be financed through reserve mechanisms, special budget appropriations, and budget reallocations. These sources of funds are rarely sufficient to face higher layers of risk for which other risk financing instruments are generally needed. A DPL with a CAT DDO operation is designed to provide liquidity in case of medium-size (or cumulative) disasters that cannot be totally funded with the internal reserves and to provide bridge financing while other sources of funding are being mobilized in case of major disaster. See figure below.


93. **Drawdown condition, financial features, and renewals are as follows:**

- **Drawdown Triggers.** Funds may be drawn upon the declaration of a state of emergency (*estadode emergencia*) in the Borrower’s territory, as a result of a natural disaster, under terms and conditions specified in the Loan Agreement. The Government of Panama has requested not to include Pandemics in the definition of the State of Emergency.

- **Financial Features.** The financial features of the DPL with a CAT DDO are similar to those available for the Deferred Drawdown Option for Development Policy Loans (DDO DPLs), with one exception: the DPL with a CAT DDO would have a revolving feature; that is, amounts repaid prior to the closing date would be available for

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26 “Memorandum from the President to the Executive Directors, Subject: Proposal to Enhance the IBRD DDO and to Introduce a DDO Option for Catastrophic Risk (CAT DDO),” Document No. 42396, World Bank, January 29, 2008.
subsequent drawdown.

- **Drawdown Period and Renewals.** The drawdown period for this operation will be three years. The DPL with a CAT DDO may be renewed up to four times for a total of 15 years. Renewals require that the original program remain largely in place, that is, the adequacy of the macroeconomic framework and a disaster risk management program. Renewal will take place no earlier than one year, and no later than six months, before the expiration date.

### B. POLICY AREAS

94. During project preparation, three prior actions were identified under a policy area supported by this operation as described in table 5.

<table>
<thead>
<tr>
<th>Table 5: DRM DPL with a CAT DDO Prior Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy area</strong></td>
</tr>
<tr>
<td>- The Government has fully implemented a comprehensive and integrated disaster risk management program. The law that reorganized the National Civil Protection System (SINAPROC)—Law 7, adopted on February 11, 2005—was a key step in strengthening the institutional and legal frameworks for disaster risk management in the country.</td>
</tr>
<tr>
<td>Proposal to expand the functions and responsibilities of the MEF Directorate of Investment, Concessions, and Risks (Dirección de Inversiones, Concesiones y Riesgos del Estado, DICRE).</td>
</tr>
</tbody>
</table>

**Policy Area – Strengthening of the Institutional and Legal Frameworks for Disaster Management**

95. **Adoption of the Comprehensive Disaster Risk Management National Policy (PNGIRD).** Adopted in December 2010 after broad consultations with key stakeholders, the PNGIRD constitutes a milestone in the evolution of the disaster risk reduction agenda in the country. Benefiting from the thorough preparation and adoption of the Central American Comprehensive Disaster Risk Management Policy (PCGIR), the PNGIRD identifies concrete roles for the different government agencies and civil society institutions according to five pillars: (a) disaster risk reduction on public and private investments for the sustainability of economic development, (b) development and social compensation for vulnerability reduction, (c) climate change and environment, (d) land use and governance, and (e) disaster management and recovery. This PNGIRD introduces and endorses as conceptual approaches to disaster risk reduction the notions of prospective, corrective, and reactive risk management,
and intensive and extensive disaster risk. It also identifies processes, tools, and implementation mechanisms for its further implementation.

96. **Adoption of the Disaster Risk Management National Plan 2011-2015 (Plan Nacional de Gestión del Riesgo de Desastres, PNGR).** The Disaster Risk Management National Plan 2011-2015, PNGR) is identified as the main implementation tool for the PNGR and the centerpiece to make the DRM program operational. SINAPROC adopted and made effective for implementation the 2011-2015 PNGR in August 10, 2011.

97. **The MEF Decree has provided Panama’s Executive Branch a proposal to expand the functions and responsibilities of the Directorate of Investment, Concessions, and Risks (Dirección de Inversiones, Concesiones y Riesgos del Estado, DICRE).** Since Executive Decree No.110 was sanctioned on August 4, 2009, dictating the creation of the DICRE, the GoP has demonstrated its commitment to incorporate disaster risk considerations within its public finances. DICRE was created, among other objectives, to establish a risk management policy and to ensure that public assets have a financial protection. In order to enable MEF to implement Pillar 1 of the PNGIRD, as envisaged in the PNGIRD -- which delegates them the responsibility for developing and implementing a risk financial strategy, and to DICRE to formally assume its role within the NPDRR--, MEF has made a formal proposal to expand the functions and responsibilities of the DICRE.

98. **The above-mentioned prior actions were agreed with the GoP and are consistent with the five good practice principles on conditionality,** as identified by the Bank’s 2005 review and its updates. Box 5 describes how this disaster risk management DPL with a CAT DDO is aligned with each of these principles.
VI. OPERATION IMPLEMENTATION

A. POVERTY AND SOCIAL IMPACTS

99. The proposed operation is likely to have positive effects on the poor by providing support to the GoP’s policies that seek to alleviate poverty by strengthening disaster risk management (DRM) in Panama. In case of a declaration of a state of emergency, the activation of the DPL with a CAT DDO will help to ensure the continuity of development plans, targeted at alleviating the needs of the poor. It will also ensure that resources are quickly available to respond to the needs of the affected population as it has been the case in other countries.

100. Disasters triggered by natural events have a disproportionate impact on the poor. Improvements in national DRM and vulnerability reduction strategies are expected to benefit the poor. Ninety-nine percent of people affected by approximately 6,000 large-scale natural disasters registered worldwide between 1970 and 2002 were in developing countries. This is because the poorer segments of the population often live in the most vulnerable...
locations and in inadequately constructed housing. Disasters compound social exclusion and existing vulnerabilities, disproportionately taxing the poor, women, children, the elderly, the disabled, indigenous peoples, and other vulnerable groups. In addition, disasters exacerbate the preexisting social, political, and economic factors that contributed to the vulnerability of the poor and marginalized before the disaster. Furthermore, the poor have limited labor skills, fewer assets, and little or no savings. They have little opportunity for risk diversification and restricted access to credit. Because of this, they are less able to cope with the impacts on consumption or disruptions to income. Exogenous shocks can also increase poverty indirectly through the effects of lower economic growth, higher inflation (the poor are more vulnerable to inflation), and through consequential lower government spending for social services.

101. The poor are most at risk from natural hazards and man-made related disasters, particularly in terms of health and productivity. For instance, the disruption of public utilities, such as potable water or sewage systems during a disaster event—which often reach poor communities with levels of service well below those provided to the nonpoor—increases the probability of the poor and other vulnerable groups of suffering from increased gastrointestinal and other illnesses. In addition, damage to transport infrastructure hinders the poor’s access to health facilities and affects the delivery of humanitarian aid by government agencies and NGOs, potentially increasing the levels of malnutrition among small children and the elderly. Panama’s National Civil Protection Law (Law No. 7) and its regulations mandate the actions that the SINAPROC will implement to reduce vulnerability to disaster risk and to enable the poor and other vulnerable groups to return to, or improve, the socioeconomic, health, and environmental conditions found before the disaster event.

102. The poor and other at risk populations can easily be among the last to receive assistance, or have their vulnerabilities exacerbated if disaster risk management systems do not proactively ensure their inclusion. The GOP’s Disaster Risk Management System would greatly benefit from adopting proactive measures to include and reach the most vulnerable populations in risk reduction, disaster response, and reconstruction activities. In Panama there exists a unique opportunity to promote the systematic inclusion of vulnerable populations as the Disaster Risk Management System is in the process of conceptualization and implementation through the enactment of the Comprehensive Disaster Risk Management National Policy (PNGIRD) in December 2010 and the adoption of the Disaster Risk Management National Plan 2011-2015 in August 2011. Inclusion of vulnerable populations is integral throughout the National Policy with examples ranging from the inclusion of gender equity and pluriculturalism as one of the Policy’s four guiding principles, the recognition of the comarcas among the key administrative entities for effective disaster risk management, its call for civil society and affected peoples participation, to the explicit recognition of the National Secretary for Disabled Peoples to ensure their inclusion in disaster risk plans and activities. The diverse range of institutional actors involved in the National Platform for Disaster Risk Reduction (SINAPROC, MIDES, MEDUCA, MINSA, ANAM, MIVIOT, etc.)

are in the process of systematizing past experiences, and carrying out internal reorganization, capacity building, and the development of new proposals as part of the 2011-2015 PNGR’s implementation.

103. **There is room for expansion and enhancement of existing activities, protocols and proposals of the GOP’s Disaster Risk Management System to achieve more effective inclusion of vulnerable peoples taking into consideration:** (a) the participation of Indigenous and other vulnerable communities in disaster prevention, response, and reconstruction activities, (b) resettlement and risk reduction of vulnerable populations living in high risk or informal settlements, and (c) measures to ensure effective response systems for vulnerable populations and their alignment with international human rights principles and standards.30

104. **Disaster risk reduction activities targeting vulnerable populations are currently being carried out by a range of Institutions. These activities hold strong potential for scaling up and improvements to ensure socio-cultural adequacy, inclusion, and enhanced inter-institutional collaboration.** In three comarcas 16 indigenous communities were identified as high-risk by SINAPROC in conjunction with traditional and non-traditional Indigenous leaders. SINAPROC’s Community Organizing Department has provided these communities with support for general awareness raising, training of community volunteers as first responders, equipment to measure river levels and radios to communicate directly with regional SINAPROC offices. It addition, it has supported them in the development of community risk maps that include basic census information and evacuation routes. An additional 21 communities outside of the comarcas also benefiting from similar activities. The Ministry of Education, through its regional directorates, including three comarcas, is equipping and training 150 schools with School Safety Plans. These schools have been identified as high risk by the regional directorates based on a combination of social and natural disaster risk criteria. MIVIOT, through its legalization and housing programs for informal settlements, requires disaster risk site analysis by SINAPROC prior to carrying out legalization or housing construction investments. MINSA, with the support of PAHO, has been developing “safe hospitals” to ensure, in the case of a disaster associated with natural hazards, that hospitals are able to continue patient care, maintain operations, and receive large inflows of patients.

105. **Disaster response systems are also undergoing improvements to enhance, streamline and provide more effective immediate and longer term assistance to the most vulnerable populations.** When SINAPROC activates the COE to respond to any disaster situation, MIDES and a range of other Ministries mobilize to establish and manage temporary shelters, receive and document the needs of affected families, provide medical and psychological support services, and channel individual cases to the appropriate range of social, housing and economic assistance programs. MIDES has recently developed an electronic social evaluation tool for assessing the situation and needs of each affected family and registering the assistance provided in a database for long-term tracking. At the same time, MIDES has prepared a protocol proposal for temporary shelters that ensures improved participation of affected people and measures to attend to key aspects related to social and

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psychological care, activities for children and youth, shelter security, culturally appropriate food provision, among other issues.

106. **As part of the Bank dialogue with the country, this operation will promote the sharing of the Bank’s global expertise in disaster risk reduction and attention to vulnerable populations.** In particular, the Bank will seek to support the GOP to build upon current experiences and promote: (i) improved awareness of vulnerable populations and key institutions of international human rights in relation to disaster risk management and response, (ii) adoption of international best practice in territorial planning and resettlement, legalization and livelihood support for vulnerable populations located in high risk areas, (iii) inclusion of indigenous authorities representing the comarcas in the National Platform as key partners for development of culturally appropriate disaster risk reduction, monitoring, and response systems, and (iv) improved inter-institutional collaboration and integration of international human rights standards in documenting, assessing, and responding to the most vulnerable population’s risk in relation to natural hazards.

**B. ENVIRONMENTAL ASPECTS**

107. **The proposed operation is likely to have positive effects on the environment and natural resources, by providing the GoP with critical funding for implementing measures that reduce environmental degradation and its adverse consequences on the population.** The reason for the existence of the operation is to support the GoP’s efforts in mainstreaming DRM into a number of key policy areas, such as environmental management. Measures included in the 2010–2014 Government Strategic Plan are aimed at reducing environmental risks and vulnerability to natural hazards, including enforcement of land zoning and urban development regulations, and sustainable management of water resources.

108. **The GOP has undertaken major efforts to establish an adequate institutional and organizational framework for the sustainable management of the country’s natural resources, and maintains a dialogue with civil society organizations.** According to the General Law of the Environment (Law 41 of July 1, 1998), the National Environmental Authority *(Autoridad Nacional del Ambiente, ANAM)* is responsible for regulating the use of natural resources, and for developing, directing, supervising, and implementing the execution of the government’s environmental policies, strategies, and programs. The General Law of the Environment (GLE) requires the preparation of environmental impact studies on all proposed development projects.

109. **All public and private investment projects, based on a set of predefined characteristics— including type of activity and size—are required to comply with the process of Environmental Impact Assessment, and to obtain the respective permits before any works can begin, according to the GLE and Executive Decree No. 123 of August 14, 2009.** Decree 123 of 2009 also dictates that works performed to rehabilitate infrastructure and restore services during an emergency, and those actions taken immediately after the event that triggered the state of emergency ended, are exempted from having to submit an environmental assessment before they start. However, article Decree 123 mandates that all projects or activities exempted from the EIA procedure shall be registered with the National Environmental Authority, during execution or immediately after completion, to have
a historical record of them. ANAM has developed guidelines on good environmental practices to ensure that works performed to respond to an emergency include considerations to minimize and mitigate environmental impacts, whenever possible. When the potential environmental impact of works performed during a state of emergency are considered to be of concern, ANAM may order the implementation of additional environmental mitigation measures, either during execution of the works or after the state of emergency has been lifted.

110. In addition to its authority to enforce the GLE’s EIA framework, ANAM is responsible for the implementation and monitoring of the country’s national agenda on Climate Change Adaptation, according to the country’s commitments under the United Nations Framework Convention on Climate Change, and the Kyoto Protocol.

C. IMPLEMENTATION, MONITORING, AND EVALUATION

111. While the Ministry of Economy and Finance (MEF) is the main counterpart of the Bank for this DPL with a CAT DDO, the implementation of the program is a shared responsibility with the Ministry of the Interior and SINAPROC.

112. Throughout the drawdown period, satisfactory implementation of the DRM program will be periodically monitored. Such periodic monitoring may take place at a frequency consistent with the information needs of the Bank, but no less than every 12 months, and could be initiated by either the Bank or the borrower.

113. If at any time during the drawdown period the Bank concludes that the DRM program is not being implemented in a manner satisfactory to the Bank, the Bank would promptly advise the borrower of the need for improvement and the suspension of eligibility for disbursement. A subsequent review would be necessary to confirm that the DRM program is once again being implemented satisfactorily before it would be able to grant any request for drawdown. In this case, follow-up monitoring would be more frequent until a review confirms that the program is back on track. Once the Bank is satisfied that drawdown conditions are again in place, the Bank would inform the borrower that its eligibility to submit disbursement requests has been restored.

D. FIDUCIARY ASPECTS

114. In general, Panama’s public financial management systems are adequate for this operation. The Country Financial Accountability Assessment/Country Procurement Assessment Review prepared in 2006 documents the current state of public financial management in the country, including the actions taken by the current administration to further increase transparency. While challenges remain, the Government is moving ahead to further strengthen its public fiduciary control framework. Public financial management processes have been supported by the Bank through previous DPL operations. These operations have included actions to improve management and control of government transactions, particularly payments, through the launch and implementation of document tracking and management systems. Nothing from the experience from Bank financed projects nor the analytical work conducted indicates other consideration than the fiduciary
environment is adequate and the appropriate management of the country’s budget resources through the country’s public financial management (PFM). The Government makes available budget information on a timely fashion on Government web sites.

E. DISBURSEMENT AND AUDITING

115. The GoP has elected the Deferred Drawdown Option (DDO) as the disbursement mode for this operation. The DDO feature provides the option of drawing down the DPL during a three-year period and renewing it for up to four additional three-year periods during which the DPL with a CAT DDO can be disbursed. Each extension would require the approval of the Regional Vice President of the Bank.

116. The DPL with a CAT DDO may be drawn down at any time subsequent to a natural disaster resulting in a declaration of a state of emergency by the Executive Branch, under terms and conditions specified in the Loan Agreement.

117. The Bank would disburse the loan proceeds into an account at the National Bank of Panama, denominated in U.S. dollars. The National Bank of Panama is a State Owned enterprise that is the Government official financial agent. It's audited by private independent audit firm and the last available financial statement audited (2010) was issued with a clean opinion. The National Bank of Panama will immediately credit the disbursed amounts to the MEF’s designated account, thus becoming both available to finance budgeted expenditures and fully incorporated into the Borrower’s accounting records and financial statements. Within 30 days of each disbursement, the MEF will provide the Bank with a written confirmation; the legal agreement will include a clause for this provision. In addition, the legal agreement will include a clause for the provision, upon the Bank’s request, of an audit of the designated account and/or a written confirmation that the amount of the disbursement has been credited to an account that is available to finance budgeted expenditures. Due to the described conditions, no additional fiduciary arrangements are deemed necessary for the disaster risk management DPL with a CAT DDO.

F. RISKS AND RISK MITIGATION

118. Economic Risks. On the economic front, the main risk derives from the potential impact of higher food, oil and, more generally, commodity prices. Panama is a net importer of commodities and therefore higher than anticipated price increases may result in lower growth, higher inflation, a deterioration of the external balance, and a tighter fiscal situation. The Bank and the IMF are maintaining an ongoing dialogue with the Government on macroeconomic policy issues, which will help detect early potential threats to Panama. Fiscal risks are also mitigated by the Social Fiscal Responsibility Law (SFRL); if an economic slowdown or other external factors cause tax revenue to be lower than projected, the government will restrain expenditures in order to meet the fiscal deficit target established by the SFRL. Therefore, economic risks are considered moderate.

31 Law No. 4, January 2006.
32 Audited by KPMG, under NIIF with prudential regulation.
119. **Institutional Risks.** Interinstitutional coordination poses a systemic risk in any emergency management project. In Panama, SINAPROC has the capacity to lead an emergency response and institutional efforts, as demonstrated during the emergency situation in December 2010. Law No. 7 of February 11, 2005 ensures an efficient national effort and gives SINAPROC the maximum authority to implement policies and plans of civil protection and disaster mitigation. On the other hand, Panama’s public sector institutions, financial management, and procurement systems need to improve to monitor and evaluate public investment. Therefore, institutional risks are rated as relatively high as compared with similar projects in the region. The Bank has several investment projects that support institutional reforms, which can help to mitigate this risk.

120. **Political Risks.** The country is politically stable and there has been a low turnover of senior and technical officials within the GoP, but the main risk is related to the possibility of weaknesses in consultations on future policy reforms with the civil society. In response to concerns voiced by civil society organizations, the administration has opened a broad National Dialogue (Concertación Nacional para el Desarrollo, CND) about new legislation to provide nongovernmental actors the opportunity to propose amendments. This lowers the risk of loss of momentum to complete the reforms supported by this program to a moderate level. The Bank will continue to stress the importance of further strengthening the CND to ensure that stakeholders’ concerns are adequately addressed.
ANNEX 1: LETTER OF DEVELOPMENT POLICY

República de Panamá
Ministerio de Economía y Finanzas
Despacho del Ministro

02 de agosto de 2011
DdCP/DE/0755

Señor
Robert Zoellick
World Bank
Washington, DC

Ref.: Carta de Política de Desarrollo para un “DPL con Opción de Desembolso Diferido durante Catastrófes” (DPL con CAT DDO)

Respetado señor Zoellick:

El Gobierno del Presidente Ricardo Martinelli, a través de su Plan Estratégico 2010-2014, se ha comprometido a implementar una estrategia social proactiva enfocada en la formación del capital humano, la reducción de la pobreza y la exclusión, y la generación de mejores oportunidades para los grupos más vulnerables de la población.

Por otra parte, la posición geográfica privilegiada y las características ambientales de la República de Panamá, permiten, entre otros, la existencia y operación del Canal de Panamá y el desarrollo de una floreciente industria turística, representan a su vez potenciales amenazas naturales que ponen en riesgo los avances sociales y económicos alcanzados por el País. Panamá se caracteriza por precipitaciones intensas y de larga duración, tormentas, fuertes descargas eléctricas, inundaciones, incendios de masas vegetales, trombas marinas, terremotos y episódicos ENSO/ El Niño-La Niña. Si bien las estadísticas sobre ocurrencia de desastres presentan a Panamá con un nivel de impactos de desastres relativamente menor en comparación con el resto de Centroamérica; el país no está exento de ellos y el ritmo acelerado de desarrollo e intervención sobre el territorio que viene evidenciando Panamá, tiende a aumentar la exposición física y la vulnerabilidad de las comunidades al impacto de amenazas naturales y tecnológicas asociadas.

Las políticas de desarrollo del Gobierno incluyen, además de las áreas estratégicas plasmadas en el Plan, la implementación de programas y proyectos para reducir el riesgo ante desastres y sus impactos sociales, económicos y ambientales.
Reconociendo así el vínculo entre los procesos sostenibles de desarrollo económico y social, con la existencia de capacidades colectivas e individuales para la prevención y respuesta ante la ocurrencia de shocks externos, incluyendo aquellos causados por amenazas de origen natural, el Gobierno se ha comprometido a fortalecer las políticas sociales desarrollando sinergias con las políticas de gestión de riesgos, protección ambiental y de adaptación al cambio climático.

Panamá ha sido pionera en la incorporación de una serie de compromisos a nivel internacional y regional. Entre estos compromisos sobresale, a nivel internacional, la firma del Marco de Acción de Hyogo 2005-2015: Aumento de la Resiliencia de las Naciones y las Comunidades ante Desastres (MAH), adoptado durante la Conferencia Mundial de Reducción de Riesgo de Desastres, realizada en Japón, en enero de 2005. Al nivel regional, Panamá ha adoptado la Política Centroamericana de Gestión Integral del Riesgo (PCGIR), que fue aprobada en la XXXV Reunión Ordinaria de Jefes de Estado y de Gobierno de Centroamérica, en junio de 2010, en la ciudad de Panamá.

A nivel nacional, el Gobierno de Panamá ha venido trabajando, en un programa de gestión de riesgos para proteger la vida, honra y bienes de la población nacional. Este programa se enfoca en tres áreas:

Desarrollo de la Política Nacional de Gestión Integral de Riesgo de Desastres:
Con el propósito de incorporar y adaptar los lineamientos de la PCGIR en las políticas y estrategias de gestión del riesgo al nivel nacional, el Gobierno desarrolló, por medio de un proceso de consulta altamente participativo y coordinado por el SINAPROC, de acuerdo al orden jurídico vigente, la Política Nacional de Gestión Integrada del Riesgo de Desastres (PNGIR). La PNGIR fue adoptada el 30 de diciembre de 2010. La PNGIR surge de la necesidad y el compromiso de la República de Panamá de contar con un marco guía actualizado orientador de las acciones y la toma de decisiones políticas desde una perspectiva integral de reducción del riesgo a desastres, como componente indispensable del desarrollo estratégico sostenible del país, y bajo las premisas de una participación sin exclusión de género, el empoderamiento social, la acción intersectorial y la interculturalidad.

Actualización del Plan Nacional de Reducción de Desastres:
También, dentro de la esfera de responsabilidades del SINAPROC, la Plataforma Nacional, órgano consultivo del SINAPROC, actualizó en julio de 2011 el Plan Nacional de Reducción de Desastres (PNRD), mediante un proceso altamente participativo, coordinado por la Dirección General del SINAPROC. Como resultado de esta actualización, el PNRD se convierte en el instrumento que opera la implementación de la PNGIR, mediante la incorporación de las acciones y responsabilidades que la misma determina, promoviendo la armonización e integración de los enfoques sectoriales, y la actualización de los abordajes teóricos y conceptuales que hoy guían la gestión del riesgo de desastres a nivel internacional.
Actualización de las funciones en Gestión de Riesgo de la Dirección de Inversiones, Concesiones y Riesgos del Estado (DICRE):
El Gobierno es consciente de que el crecimiento económico del país puede aumentar su vulnerabilidad y sus riesgos, de modo que debe acompañar sus políticas de desarrollo económico, social o territorial con estrategias y acciones para la reducción de riesgos de desastre. Como parte integral de la Política Nacional de Gestión de Riesgo se incluye la protección financiera. La misma comprende un conjunto de acciones por medio de los cuales se puede diversificar y transferir el riesgo, fortalecer la resiliencia de actores económicos y productivos, así como enfrentar adecuadamente la respuesta y la reconstrucción. La PNGIR le confiere al Ministerio de Economía y Finanzas (MEF) la responsabilidad de establecer, en colaboración con el SINAPROC, las acciones que garanticen una inversión pública segura en infraestructuras productivas y de servicios. Con el propósito de facilitar la implementación de las funciones de gestión de riesgo asignadas al MEF, el Gobierno aprobó en agosto de 2011, la actualización de las funciones de la Dirección de Inversiones, Concesiones y Riesgo del Estado (DICRE) del MEF, que establece su responsabilidad de adoptar instrumentos y acciones de protección financiera.

Conscientes de la importancia de fortalecer las capacidades nacionales para llevar a cabo el Programa Nacional de Gestión de Riesgo, el gobierno ratifica su solicitud al Banco Mundial para implementar en el país el “DPL con Opción de Desembolso Diferido durante Catástrofes” (DPL con CAT DDO) y su compromiso de seguir adelante con el Programa Nacional de Gestión de Riesgos.

Atentamente,

[Signature]

Ministro

MK/DAE/avdeo
August 2, 2011  
DdCP/DE/0755  

Mr. Robert Zoellick  
World Bank  
Washington, DC  

Re: Development Policy Letter for a “DPL with a Catastrophe Deferred Drawdown Option” (DPL with a CAT DDO)  

Dear Mr. Zoellick: 

The Government of the President Ricardo Martinelli, through its Strategic Plan 2010-2014, has committed to implement a proactive social strategy focused on building the human capital, reducing poverty and exclusion, and creating better opportunities for the most vulnerable groups of the population. 

On the other hand, the privileged geographic position and environmental characteristics of the Republic of Panama, which make possible, among other things, the existence and operation of the Panama Canal and the development of a thriving tourist industry, also present potential natural hazards which put the Country’s social and economic achievements at risk. Panama is characterized by intense and long precipitation periods, storms, strong electric shocks, floods, wildfires, waterspouts, earthquakes, tsunamis, and ENSO (El Niño/La Niña) episodes. Although disaster statistics show that the impact of disasters on Panama is relatively smaller than on the rest of Central America, the country is not exempt from them, and Panama’s accelerated development and territorial interventions tend to increase both physical exposure and vulnerability of communities to the impact of related natural and technological hazards. 

The Government’s development policies include, in addition to the strategic areas expressed in the Plan, the implementation of programs and projects for the reduction of disaster risk and its negative social, economic, and environmental impacts. Recognizing the link between the sustainable economic and social development processes and the existence of collective and individual capacities for preparedness and response to external shocks, including those caused by natural hazards, the Government has committed to strengthen its social policies, developing synergies with the policies for disaster risk management, environmental protection, and climate change adaptation. 

Panama has been a pioneer in the incorporation of a series of commitments on the international and regional level. Among these commitments, one worth highlighting, on the international level, was the signing of the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (HFA), adopted during the World Conference on Disaster Reduction, which was held in Japan in January 2005. On the regional level, Panama has adopted the Central American Comprehensive Risk Management Policy (Política Centroamericana de Gestión Integral del Riesgo, PCGIR), which was approved at the 35th Regular Meeting of the Heads of State and Government of Central American Countries, held in June 2010 in Panama City.
At the national level, the Government of Panama has been working, according to the Constitution, on a disaster risk management program to protect the life, honor, and well-being of the national population. This program focuses on three areas:

**Development of the Comprehensive Disaster Risk Management National Policy**

With the purpose of incorporating and adapting the guidelines of the PCGIR in the disaster risk management policies and strategies on the national level, the Government has developed, through a highly participatory consultative process coordinated by the SINAPROC, according to the current legal framework, the Comprehensive Disaster Risk Management National Policy (*Política Nacional de Gestión Integrada del Riesgo de Desastres*, PNGIRD). The PNGIRD was adopted on December 30, 2010. It brings up the necessity of and the commitment of the Republic of Panama to creating an updated guiding framework for political action and decision-making from a comprehensive disaster risk management perspective, as an indispensable component of the sustainable strategic development of the country, and under the premises of participation without gender exclusion, with social empowerment, intersectoral action, and interculturalism.

**Update of the Disaster Risk Management National Plan**

Also, within the set of responsibilities of SINAPROC, the National Platform, the consultative body of the SINAPROC, updated the Disaster Risk Management National Plan (*Plan Nacional de Gestión de Riesgo de Desastres*, PNGR) in July 2011, through a highly participatory process coordinated by the General Directorate of SINAPROC. As a result of this update, the PNGR has turned into the instrument which operationalizes the implementation of the PNGR through the incorporation of the actions and responsibilities defined by the Policy, promoting the harmonization and integration of the sectoral approaches, and the updating of the theoretical and conceptual approaches which now guide disaster risk management on the international level.

**Update of the Disaster Risk Management Functions of the Directorate of Investments, Concessions, and Risks (Dirección de Inversiones, Concesiones y Riesgos del Estado, DICRE)**

The Government is aware that the country’s economic growth can increase its vulnerability and risks, and that, as a result, it should pair its economic, social, and territorial development policies with disaster risk reduction strategies and actions. Financial protection is included as an integral part of the National Disaster Risk Management Policy. It encompasses a set of actions through which risk can be diversified and transferred, resilience of economic and productive stakeholders can be strengthened, and response and reconstruction can be adequately addressed. The PNGIRD assigns to the Ministry of Economy and Finance (MEF) the responsibility to establish, in collaboration with SINAPROC, the actions that would guarantee safe public investments in productive and service infrastructure. With the purpose of facilitating the implementation of the disaster risk management functions assigned to the MEF, in August 2011, the Government approved the update of the functions of the MEF Directorate of State Investments, Concessions, and Risk (*Dirección de Inversiones, Concesiones y Riesgos del Estado*, DICRE), which establishes its responsibility to adopt financial protection instruments and actions.

In recognition of the importance of strengthening the national capacity to carry out the National Disaster Risk Management Program, the Government reaffirms its request to the World Bank to implement the DPL with a Catastrophe Deferred Drawdown Option (DPL with a CAT DDO) as well as its commitment to advance the National Disaster Risk Management Program.

Sincerely,

Alberto Vallarino Clément
Minister
## ANNEX 2: POLICY MATRIX: DRM DPL WITH A CAT DDO

<table>
<thead>
<tr>
<th>Policy Area</th>
<th>Policy Issues</th>
<th>Prior Actions</th>
<th>Key Outcome Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengthening of the institutional and legal frameworks for disaster risk management.</td>
<td>DRM Policy framework and guidelines need to be updated.</td>
<td>Adoption of the Comprehensive Disaster Risk Management National Policy (PNGIRD) by Executive Decree No. 1101 of December 30, 2010, published in the National Gazette (<em>Gaceta Oficial Digital</em>) No. 26699-B, on January 11, 2011</td>
<td>Increased GoP capacity for disaster risk reduction (DRR). -Disaster Risk criteria incorporated in the National Public Investment System (SNIP) (target, guidelines incorporated into the SNIP). -Increased number of provinces with updated protocols for disaster preparedness and response (baseline 1, target 4).</td>
</tr>
<tr>
<td>The Government has fully implemented a comprehensive and integrated disaster risk management program. Law 7 of February 11, 2005 reorganized the National Civil Protection System (SINAPROC). Law 7 was a key step to strengthen the institutional and legal frameworks for disaster risk management in the country.</td>
<td>An adequate institutional framework is needed to efficiently implement the DRM National Policy</td>
<td>Adoption of the Disaster Risk Management National Plan 2011-2015 (PNGR). Completed by SINAPROC on August 10, 2011</td>
<td>The 2011-2015 PNGR is being implemented by key stakeholders. -At least three [3] ministries (e.g. MEF, MIVIOT and ANAM) have carried out DRR priority actions identified in the 2011-2015 PNGR (baseline 0, target 3).</td>
</tr>
<tr>
<td>An adequate institutional framework is needed to efficiently implement the DRM National Policy</td>
<td>Proposal to expand the functions and responsibilities of the MEF Directorate of Investment, Concessions, and Risks (<em>Dirección de Inversiones, Concesiones y Riesgos del Estado</em>, DICRE). Completed by MEF on August 10, 2011</td>
<td>Under its expanded role, DICRE is developing financial protection policies, strategies, or instruments. -DRM financial management program developed.</td>
<td></td>
</tr>
</tbody>
</table>
This letter updates the staff assessment letter of March 7, 2011. The 2011 Article IV consultation mission is tentatively scheduled for late 2011.

1. Economic growth rebounded strongly in 2010 and the outlook for 2011 is favorable, though inflation is likely to remain high. Real GDP growth in 2010 reached 7.5 percent, driven by strong private consumption and the Canal expansion, and a similar outturn is expected for 2011. Inflation rose to close to 5 percent (y/y) in 2010, owing to higher import prices and the VAT rate increase, and may be close to 6 percent in 2011. The external current account deficit deteriorated by almost 11 percentage points of GDP in 2010 (from near balance the previous year) and is projected to exceed 12½ percent of GDP in 2011. Private capital inflows, primarily FDI, are expected to continue to cover this deficit.

2. The overall fiscal deficit (excluding the Panama Canal Authority) rose to 1.9 percent of GDP in 2010, in line with the budget target and limits set out in the Social and Fiscal Responsibility Law (SFRL). For 2011, the latest staff projections suggest that the overall fiscal deficit will remain at about 2 percent of GDP, mostly as a result of high capital spending, while the fiscal impulse is projected to be small. Although the exception clause of SFRL (triggered by the December 2010 floods), would allow the government to increase the deficit to up to 3 percent of GDP, the authorities are not likely to use up all this space. Given the size of the investment envelope ($14 billion over 5 years) and a relatively short timetable of implementation, ensuring its effectiveness and minimizing fiscal risks from related contingent liabilities would be crucial in order to obtain full “value for money” from new infrastructure. Panama’s sovereign credit rating was upgraded by Fitch and Moody’s in July and August 2011, and sovereign spreads are at historic lows. At end-2010, total public debt stood at 39.2 percent of GDP, including Panama Canal and net of Fiduciary Fund assets.

3. Panama’s banking system showed strong resilience during the global financial crisis owing to prudent bank lending policies and strong supervision. As of end-June 2011, financial soundness indicators remained robust: the NPL ratio was low and stable; banking system liquidity stood at around 30 percent of deposits, and bank credit and deposits grew at 10 and 16 percent, respectively. Because of their diversified ownership structure and high reliance on deposit funding, near-term spillover risks from the European crisis are likely to be low. A first-time Financial Sector Assessment Program is planned to be completed in 2011.

4. Medium-term economic prospects are bolstered by the ongoing Canal expansion. Panama is poised to remain on a high-growth path for several years. The effective implementation of the investment program, including projects aimed at maintaining social cohesion, will be Panama’s most pressing challenge during that period. Further strengthening of the fiscal framework and the build-up of fiscal and liquidity buffers are other key challenges. In the near term, low unemployment and supply constraints may create overheating pressures and call for accelerating the pace of fiscal consolidation.
Table 1. Panama: Selected Economic and Social Indicators

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (millions, 2010 census)</td>
<td>3.4</td>
<td>Percent of population below</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population growth rate (percent a year)</td>
<td>1.6</td>
<td>poverty line (2008)</td>
<td>32.4</td>
<td></td>
</tr>
<tr>
<td>Life expectancy at birth (years)</td>
<td>75.4</td>
<td>Adult literacy rate (in percent)</td>
<td>94.5</td>
<td></td>
</tr>
<tr>
<td>Unemployment</td>
<td>4.2</td>
<td>GDP per capita (USD, 2010)</td>
<td>7,888</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production and prices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real GDP (1996 prices)</td>
<td>12.1</td>
<td>10.1</td>
<td>3.2</td>
<td>7.5</td>
<td>7.4</td>
</tr>
<tr>
<td>Consumer price index (average)</td>
<td>4.2</td>
<td>8.8</td>
<td>2.4</td>
<td>3.5</td>
<td>5.7</td>
</tr>
<tr>
<td>Consumer price index (end of year)</td>
<td>6.4</td>
<td>6.8</td>
<td>1.9</td>
<td>4.9</td>
<td>5.5</td>
</tr>
</tbody>
</table>

| Domestic demand (at constant prices) |      |      |      |      |      |
| Public consumption                 | 4.1  | 2.6  | 2.4  | 7.4  | 11.6 |
| Private consumption                | 0.9  | 5.7  | -3.7 | 12.0 | 7.7  |
| Public investment/1                | 43.2 | 58.3 | 17.2 | 46.3 | 18.5 |
| Private investment                 | 37.7 | 33.0 | -12.6| 6.3  | 3.1  |

| Financial sector                  |      |      |      |      |      |
| Private sector credit             | 18.2 | 14.6 | 1.3  | 13.6 | 11.3 |
| Broad money                       | 15.9 | 18.5 | 9.4  | 12.8 | 15.3 |
| Average deposit rate (1 year)     | 4.6  | 3.5  | 4.0  | 3.5  | ...  |
| Average lending rate (1 year)     | 9.0  | 8.5  | 7.5  | 7.5  | ...  |

| External trade 2/                 |      |      |      |      |      |
| Merchandise exports               | 11.7 | 5.2  | -27.5| -14.2| 15.8 |
| Merchandise imports               | 40.7 | 18.9 | -14.9| 15.8 | 23.1 |

| Saving-investment balance         |      |      |      |      |      |
| Gross domestic investment         | 24.1 | 26.8 | 25.6 | 31.0 | 31.5 |
| Public sector                     | 5.6  | 8.2  | 9.4  | 12.8 | 14.3 |
| Private sector                    | 18.6 | 18.6 | 16.1 | 18.2 | 17.2 |
| Gross national saving             | 16.9 | 15.0 | 25.3 | 19.8 | 19.1 |
| Public sector                     | 9.1  | 9.7  | 8.7  | 9.3  | 10.9 |
| Private sector                    | 7.8  | 5.3  | 16.7 | 10.5 | 8.3  |

| Public finances                   |      |      |      |      |      |
| Revenue and grants                | 36.7 | 34.9 | 33.6 | 32.8 | 34.5 |
| Expenditure                       | 31.9 | 32.4 | 34.1 | 37.2 | 38.9 |
| Current                           | 22.9 | 21.0 | 21.7 | 21.7 | 0.0  |
| Capital                           | 0.6  | 1.2  | 2.1  | 4.6  | 4.4  |
| Overall balance                   | 4.8  | 2.5  | -0.5 | -4.4 | -4.4 |
| Overall balance, excluding ACP 2/ | 3.4  | 0.4  | -1.0 | -1.9 | -2.0 |

| External sector                   |      |      |      |      |      |
| Current account                   | -7.2 | -11.9| -0.2 | -11.2| -12.4|
| Net exports from Colon Free Zone  | 2.3  | 0.0  | 8.2  | 1.8  | 1.9  |
| Net oil imports                   | 4.4  | 6.4  | 3.9  | 5.3  | 6.6  |
| Foreign direct investment         | 9.6  | 9.5  | 7.4  | 8.8  | 9.0  |

| Total public debt                 |      |      |      |      |      |
| Total debt 3/                     | 45.6 | 39.2 | 41.2 | 39.2 | 39.4 |
| External                          | 37.4 | 33.0 | 37.8 | 34.8 | 34.3 |
| Domestic                          | 8.2  | 6.2  | 3.4  | 4.4  | 5.1  |

Memorandum items:
GDP (in millions of US$) | 19,794 | 23,001 | 24,054 | 26,819 | 30,240 |

Sources: Comptroller General; Superintendency of Banks; and Fund staff estimates.
1/ Includes Panama Canal Authority (ACP).
2/ Excludes the Colon Free Zone.
3/ Including ACP and net of Feduciary Fund' holdings of non-government assets.
ANNEX 4: PANAMA DEBT SUSTAINABILITY ANALYSIS

1. The debt sustainability analysis presented in this annex is based on the macroeconomic framework summarized in Table 1 of the main document. The analysis uses both a deterministic model and stochastic simulations. The analysis applies two different concepts of public debt: (1) Non Financial Public Sector (NFPS) debt, excluding the accounts of the Panama Canal Authority (PCA); (2) NFPS debt including debts of the PCA. Both definitions define debt on a net basis by excluding public debt instruments held by the Fiduciary Fund and the Social Security Administration (CSS) from gross public debt.

2. The economy has recovered from the global crisis with a solid growth rate of 7.5 percent in 2010 (up from a 3.2 growth rate in 2009). Economic growth is projected to remain strong, averaging 7 percent on an annual basis in 2011-2015. In the baseline scenario, NFPS, excluding the PCA is expected to generate primary surpluses during the projection period. GDP deflator inflation will average 2.7 percent.

3. Table 1 presents the evolution of the stock of the NFPS debt from 2005 to 2009 providing a breakdown by creditor for the stock of debt. Panama’s public debt is mainly external (93 percent of total debt). Domestic debt corresponds to about 7 percent of the total debt.

Table 1: Panama: Composition of NFPS Debt, 2005-2009
(In US$ Million)

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>2,651.64</td>
<td>2,664.33</td>
<td>2,195.04</td>
<td>1,960.11</td>
<td>822.18</td>
</tr>
<tr>
<td>o/w Private sources</td>
<td>1,263.54</td>
<td>1,312.50</td>
<td>995.21</td>
<td>827.60</td>
<td>519.35</td>
</tr>
<tr>
<td>o/w Public sources</td>
<td>1,388.09</td>
<td>1,351.83</td>
<td>1,199.83</td>
<td>1,132.51</td>
<td>302.83</td>
</tr>
<tr>
<td>External</td>
<td>7,579.70</td>
<td>7,788.33</td>
<td>8,275.59</td>
<td>8,477.29</td>
<td>10,150.15</td>
</tr>
<tr>
<td>o/w Multilateral</td>
<td>1,136.11</td>
<td>1,183.01</td>
<td>1,235.37</td>
<td>1,349.85</td>
<td>1,638.08</td>
</tr>
<tr>
<td>o/w Bilateral</td>
<td>259.19</td>
<td>237.20</td>
<td>223.96</td>
<td>210.26</td>
<td>222.74</td>
</tr>
<tr>
<td>o/w Private</td>
<td>79.61</td>
<td>8.34</td>
<td>6.49</td>
<td>169.63</td>
<td>218.78</td>
</tr>
<tr>
<td>o/w Bonds</td>
<td>6,104.79</td>
<td>6,359.78</td>
<td>6,809.78</td>
<td>6,747.55</td>
<td>8,070.55</td>
</tr>
<tr>
<td>Total NFPS debt</td>
<td>10,231.34</td>
<td>10,452.66</td>
<td>10,470.63</td>
<td>10,437.40</td>
<td>10,972.33</td>
</tr>
</tbody>
</table>

Source: Ministry of Economy and Finance
Note: This table shows gross public debt figures, including public debt held by NFPS institutions.

4. Panama’s public debt is projected to stay on a sustainable path over the period 2011-2015. Under the baseline scenario excluding the PCA, the public-debt-to-GDP ratio will gradually decline from an estimated 39.2 percent in 2010 to about 25.7 percent by 2015.

5. Although the debt outlook under the baseline scenario looks fairly stable, there are still some potential economic risks that could arise in the medium term. To examine the potential implication of these risks, Table 2 present projected debt dynamics for the Non-Financial Public Sector (excluding PCA) under more pessimistic alternative scenarios:

33 The Panama Canal Authority is an autonomous agency with fiscal accounts separate from that of the Non-Financial Public Sector. PCA debt is not explicitly guaranteed by the sovereign.
• Under higher average real interest rates for public debt over 2011-2012 (scenario B1), projected debt indicators for 2012 would be 2.7 percentage points higher than under the baseline scenario.

• Under a pessimistic growth scenario (2 standard deviation contraction over 2011-2012) compared to the baseline (about 7 percent over 2011-2016)-Scenario B2- the public debt-to-GDP ratio would be 5.2 percentage point higher than under the baseline scenario in 2015.

• Assuming a looser fiscal policy-scenario B3- with an average primary deficit of 2 percent of GDP over 2011-2012 instead of the assumed primary surplus of 1 percent of GDP under the baseline scenario, the public debt-to-GDP ratio would be 2.8 percentage points higher than under the baseline scenario in 2015.

• Under a scenario of contemporaneous shocks in which GDP growth, the primary balance and real interest rates are affected- scenario B 4- the public debt-to-GDP would reach 33.2 percent in 2015 or 7.5 percentage points higher than in the baseline scenario.

### Table 2: Panama Debt Sustainability Analysis, excluding PCA (Alternative Scenarios)

<table>
<thead>
<tr>
<th>Scenario</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>39.2</td>
<td>36.9</td>
<td>34.5</td>
<td>31.8</td>
<td>28.7</td>
<td>25.7</td>
</tr>
<tr>
<td>A1. Key variables are at their historical averages in 2011-15</td>
<td>39.2</td>
<td>37.3</td>
<td>35.4</td>
<td>33.2</td>
<td>30.7</td>
<td>28.0</td>
</tr>
<tr>
<td>A2. No policy change (constant primary balance) in 2011-15</td>
<td>39.2</td>
<td>36.9</td>
<td>34.8</td>
<td>32.1</td>
<td>29.0</td>
<td>26.0</td>
</tr>
<tr>
<td>B1. Real interest rate is at historical average plus two standard deviations in 2011 and 2012</td>
<td>39.2</td>
<td>38.2</td>
<td>37.3</td>
<td>34.5</td>
<td>31.5</td>
<td>28.4</td>
</tr>
<tr>
<td>B2. Real GDP growth is at historical average minus two standard deviations in 2011 and 2012</td>
<td>39.2</td>
<td>39.5</td>
<td>39.7</td>
<td>37.0</td>
<td>34.0</td>
<td>30.9</td>
</tr>
<tr>
<td>B3. Primary balance is at historical average minus two standard deviations in 2011 and 2012</td>
<td>39.2</td>
<td>39.7</td>
<td>37.3</td>
<td>34.6</td>
<td>31.6</td>
<td>28.5</td>
</tr>
<tr>
<td>B4. Combination of 1-3 using one standard deviation shocks</td>
<td>39.2</td>
<td>40.9</td>
<td>42.0</td>
<td>39.3</td>
<td>36.3</td>
<td>33.2</td>
</tr>
<tr>
<td><strong>Most Extreme Test (B4)</strong></td>
<td>39.2</td>
<td>40.9</td>
<td>42.0</td>
<td>39.3</td>
<td>36.3</td>
<td>33.2</td>
</tr>
</tbody>
</table>

6. The second part of the analysis incorporates the accounts of the Panama Canal Authority and the canal expansion borrowing schedule for the period 2011-2015. The PCA is an autonomous entity which has fiscal accounts separate from the rest of the Panamanian public sector. Nonetheless, the PCA has close ties to the public sector, and has contributed to the annual revenues of the NFPS by an average of 3.3 percent of GDP during 2005-2009. Due to the expansion of the Panama Canal, PCA debt will increase noticeably over the next few years.

7. The debt sustainability analysis for the NFPS, including the PCA (Table 3), indicates that an average 0.9 percent of GDP primary surpluses during 2011-2015 would lead the debt-to-GDP ratio to gradually decline to 28.3 percent of GDP in 2015. This figure is 2.6 percentage points of GDP higher than the NFPS debt excluding the PCA. Under a relatively
comprehensive scenario, which assumes a combined shock on the growth rate, interest rate and primary balance, the public debt-to-GDP ratio would rise to above 43 percent in 2012. Nevertheless, the projected debt-to-GDP ratio declines towards the end of the projection period under all stress tests.

### Table 3: Panama Debt Sustainability Analysis, including PCA

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baseline</strong></td>
<td>39.2</td>
<td>37.8</td>
<td>36.3</td>
<td>34.8</td>
<td>32.7</td>
<td>28.3</td>
</tr>
<tr>
<td>A1. Key variables are at their historical averages in 2011-16</td>
<td>39.2</td>
<td>38.1</td>
<td>37.2</td>
<td>36.4</td>
<td>34.9</td>
<td>31.0</td>
</tr>
<tr>
<td>A2. No policy change (constant primary balance) in 2011-16</td>
<td>39.2</td>
<td>37.7</td>
<td>36.5</td>
<td>35.0</td>
<td>32.9</td>
<td>28.5</td>
</tr>
<tr>
<td>B1. Real interest rate is at historical average plus two standard deviations in 2011 and 2012</td>
<td>39.2</td>
<td>39.0</td>
<td>39.1</td>
<td>37.6</td>
<td>35.6</td>
<td>31.1</td>
</tr>
<tr>
<td>B2. Real GDP growth is at historical average minus two standard deviations in 2011 and 2012</td>
<td>39.2</td>
<td>40.4</td>
<td>41.6</td>
<td>40.1</td>
<td>38.0</td>
<td>33.6</td>
</tr>
<tr>
<td>B3. Primary balance is at historical average minus two standard deviations in 2011 and 2012</td>
<td>39.2</td>
<td>40.5</td>
<td>39.1</td>
<td>37.6</td>
<td>35.5</td>
<td>31.1</td>
</tr>
<tr>
<td>B4. Combination of 1-3 using one standard deviation shocks</td>
<td>39.2</td>
<td>41.1</td>
<td>43.3</td>
<td>41.8</td>
<td>39.7</td>
<td>35.3</td>
</tr>
<tr>
<td><strong>Most Extreme Test (B4)</strong></td>
<td>39.2</td>
<td>41.1</td>
<td>43.3</td>
<td>41.8</td>
<td>39.7</td>
<td>35.3</td>
</tr>
</tbody>
</table>

8. **Stochastic simulations assign a low probability to a sharp increase in the debt ratio.** Stochastic simulations produce confidence intervals for the public debt ratios corresponding to varying degrees of uncertainty for four key macroeconomic variables: (a) domestic interest rates, (b) the growth rate, (c) the exchange rate, and (d) the foreign interest rate. Assuming an average 0.9 percentage point of GDP primary balance including PCA and (1.5 percentage points of GDP primary surplus excluding PCA) in the period 2011-2015, there is a 97.5 percent probability that the public debt-to-GDP ratio will remain between 17.5 (15.8) and 33.3 (30.4) percent by end-2015 (Figure 1).
The level of public debt is said to be sustainable whenever it does not exceed the present value of future primary surpluses. In simple terms, an upward trend in public debt to GNP ratio is regarded as a signal of unsustainability. The deterministic models of FS are based on some accounting identities. The first step of the analysis is to produce a baseline scenario projection for public debt-to-GNP ratio based on some specific macroeconomic and fiscal policy forecasts. The next step is to conduct stress tests in order to determine the bounds of debt ratio under less favorable assumptions. A declining trend in debt ratio is deemed favorable for sustainability, but judgment critically depends on the soundness of the underlying forecasts of the key macroeconomic variables. Although the analysis is practical and the interpretation of its results is quite straightforward, the framework has many shortcomings. The main drawback is the ignorance of the interaction among the variables; a shock to a specific variable is assumed to have no repercussions on other key variables. This apparently implies that the final impact of a shock on the debt ratio could be underestimated.

A more recent approach to fiscal sustainability is utilizing a stochastic simulation tool. This framework takes the interactions among key variables into account, contrary to the deterministic approach. The common practice is to estimate a VAR model in order to obtain the correlation matrix of the key macroeconomic variables that are assumed to have an impact on debt ratio. The next step is to use these correlations to carry out Monte Carlo simulations with an aim to generating large sample of bound tests. As a result, frequency distributions of the debt ratio can be derived for each year of projection, which provides a probabilistic assessment of debt sustainability. The aim of the analysis is not to determine the path of the public debt ratio but to produce “fan charts” that display confidence bands for varying degrees of uncertainty around a median projection. More simply, the analysis estimates the probability that the simulated debt ratio exceeds a certain level.

The following is a brief discussion of the methodology developed by Bandiera et al (2006). The crucial element of the analysis is to determine the interactions among key variables.

34 See for example, Celasun et al. (2007) IMF Staff Papers, Vol. 53, No.3
35 See Bandiera, Budina, Klijn, and Wijnbergen (2006) for details.
variables that are assumed to have significant impacts on public debt ratio. These key variables are real interest rate on foreign and domestic debt, real GDP growth rate, and the change in real exchange rate. The primary step is to estimate an unrestricted VAR model composed of the above key variables:

\[
X_t = c + B(L)X_t + \nu_t
\]

\[
X_t = \left[r^d_t, r^f_t, g_t, \hat{e}_t\right]
\]

\[
\nu_t \sim N(0, \Omega)
\]

where \(r^d_t\): real domestic interest rate, \(r^f_t\): real foreign interest rate (yield on US treasury bills), \(g_t\): growth rate of real GDP, \(\hat{e}_t\): change in real effective exchange rate, \(X\): vector of state variables, \(\nu_t\): reduced form residuals distributed multinomial with mean zero and covariance matrix \(\Omega\), \(B(L)\): coefficients of the lags. The estimated variance-covariance matrix for Panama is as follows:

<table>
<thead>
<tr>
<th></th>
<th>Real depreciation</th>
<th>Domestic interest rate</th>
<th>Foreign interest rate</th>
<th>Real growth rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real depreciation of the Peso</td>
<td>0.001223</td>
<td>0.005791</td>
<td>0.004464</td>
<td>0.00867</td>
</tr>
<tr>
<td>Domestic interest rate</td>
<td>0.005791</td>
<td>1.291822</td>
<td>0.121524</td>
<td>-2.30877</td>
</tr>
<tr>
<td>Foreign interest rate</td>
<td>0.004464</td>
<td>0.121524</td>
<td>0.876422</td>
<td>-0.51882</td>
</tr>
<tr>
<td>Real growth rate</td>
<td>0.008670</td>
<td>-2.308770</td>
<td>-0.518820</td>
<td>24.33847</td>
</tr>
</tbody>
</table>

Source: Staff estimations.

12. The next step is to carry out Monte Carlo simulations in order to generate random numbers for these four key variables, each of which has a standard normal distribution. Then, shocks are created for these variables with a joint distribution given by the estimated covariance matrix. The results of the simulations summarized in the fan charts (See Figure 1). The fan charts represent the frequency distribution of the public debt paths generated by the simulations.
ANNEX 5: COUNTRY AT A GLANCE

Panama at a glance

<table>
<thead>
<tr>
<th>Key Development Indicators</th>
<th>Panama</th>
<th>Latin America &amp; Carib.</th>
<th>Upper middle income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population, mid-year (millions)</td>
<td>3.5</td>
<td>572</td>
<td>1002</td>
</tr>
<tr>
<td>Surface area (thousand sq. km)</td>
<td>75</td>
<td>20,394</td>
<td>48,659</td>
</tr>
<tr>
<td>Population growth (%)</td>
<td>1.6</td>
<td>1.1</td>
<td>0.9</td>
</tr>
<tr>
<td>Urban population (% of total population)</td>
<td>74</td>
<td>79</td>
<td>75</td>
</tr>
<tr>
<td>GNI (Atlas method, US$ billions)</td>
<td>24.5</td>
<td>4,011</td>
<td>7,515</td>
</tr>
<tr>
<td>GNI per capita (Atlas method, US$)</td>
<td>6,990</td>
<td>7,007</td>
<td>7,502</td>
</tr>
<tr>
<td>GNI per capita (PPP, international $)</td>
<td>12,180</td>
<td>12,286</td>
<td>12,440</td>
</tr>
<tr>
<td>GDP growth (%)</td>
<td>7.5</td>
<td>-1.9</td>
<td>-2.6</td>
</tr>
<tr>
<td>GDP per capita growth (%)</td>
<td>5.8</td>
<td>-3.0</td>
<td>-3.4</td>
</tr>
<tr>
<td>(most recent estimate, 2004–2010)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poverty headcount ratio at $1.25 a day (PPP, %)</td>
<td>9</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Poverty headcount ratio at $2.00 a day (PPP, %)</td>
<td>11</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Life expectancy at birth (years)</td>
<td>76</td>
<td>74</td>
<td>72</td>
</tr>
<tr>
<td>Infant mortality (per 1,000 live births)</td>
<td>18</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Child malnutrition (% of children under 5)</td>
<td></td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Adult literacy, male (% of ages 15 and older)</td>
<td>94</td>
<td>92</td>
<td>94</td>
</tr>
<tr>
<td>Adult literacy, female (% of ages 15 and older)</td>
<td>93</td>
<td>90</td>
<td>91</td>
</tr>
<tr>
<td>Gross primary enrollment, male (% of age group)</td>
<td>111</td>
<td>111</td>
<td>110</td>
</tr>
<tr>
<td>Gross primary enrollment, female (% of age group)</td>
<td>107</td>
<td>114</td>
<td>110</td>
</tr>
<tr>
<td>Access to an improved water source (% of population)</td>
<td>93</td>
<td>93</td>
<td>95</td>
</tr>
<tr>
<td>Access to improved sanitation facilities (% of population)</td>
<td>69</td>
<td>79</td>
<td>84</td>
</tr>
</tbody>
</table>

Net Aid Flows

<table>
<thead>
<tr>
<th>(US$ millions)</th>
<th>1980</th>
<th>1990</th>
<th>2000</th>
<th>2010 *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net ODA and official aid</td>
<td>45</td>
<td>99</td>
<td>15</td>
<td>66</td>
</tr>
<tr>
<td>Top 3 donors (in 2008):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>34</td>
</tr>
<tr>
<td>United States</td>
<td>15</td>
<td>97</td>
<td>-9</td>
<td>17</td>
</tr>
<tr>
<td>Spain</td>
<td>0</td>
<td>6</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>Aid (% of GNI)</td>
<td>13</td>
<td>2.0</td>
<td>0.1</td>
<td>0.3</td>
</tr>
<tr>
<td>Aid per capita (US$)</td>
<td>23</td>
<td>41</td>
<td>5</td>
<td>19</td>
</tr>
</tbody>
</table>

Long-Term Economic Trends

| Consumer prices (annual % change)                            | 13.8  | 0.7  | 14    | 3.5    |
| GDP implicit deflator (annual % change)                      | 33.7  | 0.6  | -12   | 3.5    |
| Exchange rate (annual average, local per US$)                | 10    | 10   | 10    | 10     |
| Terms of trade index (2000 = 100)                            | 90    | 94   | 100   | 99     |

| Population, mid-year (millions)                              | 2.0   | 2.4  | 3.0   | 3.5    |
| GDP (US$ millions)                                           | 3,810 | 5,130| 11,621| 26,777 |
| (% of GDP)                                                  |       |      |       |        |
| Agriculture                                                 | 8.9   | 9.8  | 7.2   | 4.6    |
| Industry                                                    | 19.5  | 15.1 | 16.9  | 16.6   |
| Manufacturing                                               | 11.0  | 9.7  | 10.1  | 6.0    |
| Services                                                    | 7.15  | 75.1 | 73.9  | 78.8   |
| Household final consumption expenditure                     | 44.9  | 56.9 | 59.9  | 66.1   |
| General govt's final consumption expenditure                | 17.6  | 18.1 | 13.2  | 11.2   |
| Gross capital formation                                     | 22.1  | 11.8 | 24.1  | 27.5   |
| Exports of goods and services                               | 98.2  | 86.8 | 72.6  | 77.0   |
| Imports of goods and services                               | 88.8  | 78.6 | 69.8  | 69.5   |
| Gross savings                                               | -     | -    | -     | -      |

| Under-5 mortality rate (per 1,000)                          |       |      |       |        |
| Panama         | 54   | 54   | 54   | 54   |
| Latin America & the Caribbean                               | 55   | 55   | 55   | 55   |

| Growth of GDP and GDP per capita (%)                         |       |      |       |        |
| GDP    | 14      | 12    | 10   | 12    |
| GDP per capita   | 14 | 12    | 10   | 12    |

Note: Figures in italics are for years other than those specified. 2010 data are preliminary. Group data are for 2009. .. indicates data are not available.
a. Aid data are for 2009.

Development Economics, Development Data Group (DECDG).
Millennium Development Goals

Panama

With selected targets to achieve between 1990 and 2015
(estimate closest to date shown, +/- 2 years)

<table>
<thead>
<tr>
<th>Goal 1: halve the rates for extreme poverty and malnutrition</th>
<th>Panama</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty headcount ratio at $1.25 a day (PPP, % of population)</td>
<td>6.9</td>
</tr>
<tr>
<td>Poverty headcount ratio at national poverty line (% of population)</td>
<td>..</td>
</tr>
<tr>
<td>Share of income or consumption to the poorest quintile (%)</td>
<td>19</td>
</tr>
<tr>
<td>Prevalence of malnutrition (% of children under 5)</td>
<td>..</td>
</tr>
</tbody>
</table>

| Goal 2: ensure that children are able to complete primary schooling |
|-------------------------------------------------------------|--------|
| Primary school enrollment (net, %) | 92 | .. | 98 | 97 |
| Primary completion rate (% of relevant age group) | 86 | .. | 94 | 102 |
| Secondary school enrollment (gross, %) | 61 | 66 | 67 | 73 |
| Youth literacy rate (% of people ages 15-24) | 95 | .. | 96 | 96 |

| Goal 3: eliminate gender disparity in education and empower women |
|-------------------------------------------------------------|--------|
| Ratio of girls to boys in primary and secondary education (%) | 99 | .. | 100 | 101 |
| Women employed in the nonagricultural sector (% of nonagricultural employment) | 43 | 43 | 43 | 42 |
| Proportion of seats held by women in national parliament (%) | 8 | .. | 10 | 9 |

| Goal 4: reduce under-5 mortality by two-thirds |
|-------------------------------------------------------------|--------|
| Under-5 mortality rate (per 1000) | 31 | 28 | 26 | 23 |
| Infant mortality rate (per 1000 live births) | 25 | 22 | 20 | 16 |
| Measles immunization (proportion of one-year-olds immunized, %) | 73 | 84 | 97 | 85 |

| Goal 5: reduce maternal mortality by three-fourths |
|-------------------------------------------------------------|--------|
| Maternal mortality ratio (modeled estimate, per 100,000 live births) | 86 | 71 | 71 | 71 |
| Births attended by skilled health staff (% of total) | .. | 86 | 90 | 92 |
| Contraceptive prevalence (% of women ages 15-49) | .. | .. | .. | .. |

| Goal 6: halt and begin to reverse the spread of HIV/AIDS and other major diseases |
|-------------------------------------------------------------|--------|
| Prevalence of HIV (% of population ages 15-49) | 0.2 | 18 | 14 | 0.9 |
| Incidence of tuberculosis (per 100,000 people) | 47 | 47 | 47 | 48 |
| Tuberculosis case detection rate (% of all forms) | 74 | 100 | 84 | 94 |

| Goal 7: halve the proportion of people without sustainable access to basic needs |
|-------------------------------------------------------------|--------|
| Access to an improved water source (% of population) | 84 | 87 | 90 | 93 |
| Access to improved sanitation facilities (% of population) | 58 | 62 | 65 | 69 |
| Forest area (% of land area) | 510 | .. | 45.3 | 43.7 |
| Terrestrial protected areas (% of land area) | .. | .. | .. | .. |
| CO2 emissions (metric tons per capita) | 13 | 13 | 2.0 | 2.2 |
| GDP per unit of energy use (constant 2005 PPP $ per kg of oil equivalent) | 9.8 | 9.6 | 9.3 | 13.8 |

| Goal 8: develop a global partnership for development |
|-------------------------------------------------------------|--------|
| Telephone mainlines (per 100 people) | 9.0 | 114 | 14.5 | 15.6 |
| Mobile phone subscribers (per 100 people) | 0.0 | 0.0 | 13.9 | 16.4 |
| Internet users (per 100 people) | 0.0 | 0.1 | 6.6 | 27.8 |
| Personal computers (per 100 people) | .. | .. | 3.6 | 6.3 |

Note: Figures in italics are for years other than those specified. .. indicates data are not available.

Development Economics, Development Data Group (DECDG).