

Policy Discussion Brief

A Renewed Agenda for Regional Cooperation: Infrastructure, Energy Efficiency and Integration



Second Meeting of the Finance Ministers of the Americas and the Caribbean

Viña del Mar, Chile - July 3rd, 2009



THE WORLD BANK





IDB



THE WORLD BANK

SECOND MEETING OF THE FINANCE MINISTERS OF THE AMERICAS AND THE CARIBBEAN

POLICY DISCUSSION BRIEF

**A Renewed Agenda for Regional Cooperation:
Infrastructure, Energy Efficiency and Integration**

Viña del Mar, Chile, July 3rd, 2009

This policy brief is the result of a joint Inter-American Development Bank and World Bank effort to respond to the request made by Ministers during the *First Meeting of the Finance Ministers of the Americas and the Caribbean*, held in Cancún (Mexico) on June 23-24, 2008. It incorporates comments received during the Preparatory Workshop for the Second Meeting of the Finance Ministers held in Medellín (Colombia) on March 28, 2009.

The document draws partially on two background papers: “Implementing Renewable Energy and Energy Efficiency Measures: Challenges and Opportunities for Latin America and the Caribbean”, and “Logistics, Transport and Food Prices: Policy Guidance for Improving Efficiency and Reducing Costs” prepared by the Inter-American Development Bank and the World Bank.

Santiago Levy, Vice-President for Sectors and Knowledge at the Inter-American Development Bank, and Augusto de la Torre, Chief Economist for Latin America and the Caribbean at the World Bank, provided overall direction to the preparation of this document.

The brief was prepared by a team led by Antoni Esteveordal, Manager of the Integration and Trade Sector at the Inter-American Development Bank, and including Paolo Giordano (Inter-American Development Bank), Jordan Schwartz (World Bank), and Juan Pablo Bonilla (Inter-American Development Bank). Elizabeth Beall, Kati Suominen, Wesly Ureña-Vargas and Luis Martín Uribe, Aurelio Gracia and Maria Lissette Romero (Inter-American Development Bank) provided valuable support to the team.

The opinions expressed in this paper are those of the authors and do not necessarily represent the views of the Inter-American Development Bank, the World Bank or its member countries.

EXECUTIVE SUMMARY

This policy brief serves as the basis for the discussion of the Ministers of Finance on a renewed agenda for cooperation in the Americas and the Caribbean.

At the G20, world leaders agreed on the need of a concerted and coordinated response to the financial crisis, and at the same time committed to lay the foundations to move beyond the crisis to a sustainable recovery. However, Latin America and the Caribbean still lack adequate and efficient institutional mechanisms and instruments to tackle long-term common development challenges at the regional level. The Annual Meeting of the Finance Ministers of the Americas and the Caribbean provides an opportunity to fill this gap.

This brief provides an overview of the rationale for coordinating policy interventions at the regional level and the need to increase the provision of regional public goods. In particular, it reviews the main policy issues identified by the Ministers as priorities in the First Meeting in the areas of infrastructure and energy efficiency, assesses the main bottlenecks for enhanced regional cooperation and offers some questions to be considered by the Ministers in order to lay the ground for future action.

In particular, Ministers may want to debate the following questions:

- Which policy areas require a regional approach and enhanced policy coordination? What institutional architecture and financial instruments are required to promote and implement a coordinated regional policy agenda?
- How can the international and regional financial institutions strengthen their role to promote a harmonized policy, legal, and regulatory environment that facilitate regional projects and integration? What is the most appropriate division of labor across institutions?
- Do the international and regional financial institutions need to develop new financial products to support cross-border integration projects, particularly multi-country lending instruments?
- Do countries in the region require technical assistance and capacity building to promote long-term strategic and technical consensus on priority projects that offer the greatest integration returns and economic benefits?

I - The Rationale for Regional Coordination and Cooperation

The increasing importance of cross-border policy challenges. Trans-national policy challenges - such as the financial crisis, climate change, regional infrastructure bottlenecks or regulatory frameworks for trade and investment - dominate the global and regional agendas. The G20, which catalyzed unprecedented degrees of policy coordination at the highest political levels, is the clearest example of the renewed need for international collective action.

The value of regional cooperation. Cooperation is needed to address regional coordination failures and finance common policy solutions in presence of cross-border externalities. By pooling resources, individual countries can also attain greater developmental gains than they would if they were to act on their own. The current juncture has already revealed the significant costs that individual countries face when adequate collective institutional infrastructure to deal with global challenges is not in place. In other words, the emergence of global and regional “bads” has highlighted the value of efficient provision of global and regional public “goods.”

Latin America and the Caribbean (LAC) still face a “global and regional integration gap.” Nevertheless, economic integration functions as a powerful counter-cyclical force by expanding regional markets and enhancing global competitiveness. Moreover, the payoff of regional cooperation increases in the current environment of economic crisis and potential “deglobalization,” dwindling of international trade and the retrenchment of global finance.

A renewed regional cooperation and integration agenda. In times of global crisis, there is a need to provide region-specific pragmatic responses. Bottom-up cooperation in Asia relies on competitive firms and unfolding financial and infrastructure integration, all supported by lean official institutional arrangements. Enlarged Europe tests its comprehensive top-down approach of deep integration based on supranational institutions and wide availability of regional funds. In LAC, in the absence of the top-down institutional arrangements as in Europe or the bottom-up integrated production networks in Asia, an effective policy coordination mechanism requires vision, leadership and accountability at the highest executive level. Unlike in poorer regions, there is a scarce availability of grant funding for middle-income countries which implies a need to develop innovative regional institutional and financial instruments to absorb the costs of policy coordination failures.

The catalyzing role of international and regional institutions. Multilateral and regional financial institutions, by virtue of their global and regional reach, are uniquely positioned to support concerted policy approaches and actions at the regional level. They can act as honest brokers, produce cutting-edge policy research, develop innovative multi-country operational products and are able to mobilize resources for supporting region-wide development interventions. In short, they can help to improve the stance of the region as a global citizen.

II – Two long-term strategic regional issues: Energy Efficiency and Transport Infrastructure

During the *First Meeting of the Finance Ministers of the Americas and the Caribbean*, the Ministers instructed the IDB and the World Bank to prepare policy documents on two pressing common regional challenges: how to promote renewable energy and energy efficiency measures; and how to reduce trade and transport costs to offset rising food prices. These structural issues lie at the heart of the capacity of the region to compete in the global marketplace and to sustain the recovery once the recessive effects of the financial crisis fade away. Regional public policies to address both issues are required in the presence of widespread cross-border externalities: failure to coordinate climate change policies takes a toll on first-movers' competitiveness; lack of joint planning and financing of trans-national infrastructure corridors decreases the internal rate of return of purely national investments. This section summarizes the main findings and policy recommendations¹.

Renewable energy and energy efficiency

A transition to low-carbon economies will help to improve regional energy security. According to the International Energy Agency (IEA), total primary energy needs in LAC are estimated to increase 63% by 2030 with respect to 2006: demand for oil, natural gas and coal will be 30%, 100%, and 150% higher, respectively. A lack of diversification of energy sources has left the LAC region vulnerable to fluctuating oil prices. Combining economic development goals with climate change policies should result in enhanced energy security, a shift to low-carbon economies and improved climate resilience.

A contribution to climate change mitigation. LAC has so far kept a cleaner energy production matrix compared to other regions: 30% of LAC's energy comes from renewable sources, compared to 20% on average for the world. However, future energy plans may be improved. For example, LAC has been increasing its energy consumption per unit of GDP while the rest of the world has been reducing it. Arguably more important, according to the IEA, given current plans, per capita energy-related GHG emissions in LAC will increase significantly faster than the world's average after 2015. Hence, LAC needs a major shift in energy policies.

A long-term payoff of energy efficiency. Worldwide energy consumption would be 58% higher today without the energy efficiency measures implemented since 1973. The IEA estimates that energy efficiency accounts for more than half of the global energy related GHG emission abatement potential achievable within the next 20-40 years. Contrary to popular perception, such efficiency measures would not compromise household's comfort or the region's competitiveness².

¹ See the documents *“Implementing Renewable Energy and Energy Efficiency Measures: Challenges and Opportunities for Latin America and the Caribbean”* and *“Logistics, Transport and Food Prices: Policy Guidance for Improving Efficiency and Reducing Costs”*, prepared by IDB and World Bank staff and discussed at the Preparatory Workshop held in Medellín (Colombia) on March 28, 2009.

² For example, Mexico established a Trust Fund to Support Energy Efficiency in the Electricity Sector (FIDE): in six years of operation FIDE programs have saved an estimated \$632 million and 5,274 gigawatt hours of electricity; enough to supply more than 2 million households with electricity for a year, and avoided 4 million tons of CO₂ emissions.

Getting the incentives right on the supply and demand sides. Implementation of energy efficiency technology adoption policies requires sound demand-side management strategies and a shift from solely supply-driven policies. LAC spent around US\$50 billion in subsidies for transportation fuel during 2008, in an attempt to protect consumers from high fuel prices and keep inflation in check. But these subsidies also tend to discourage investments in efficiency. Expenditure in subsidies may, at least partially, be switched to incentives for consumers or companies that use energy-efficient sources. Over the next ten years investing \$16 billion in LAC in energy efficiency measures could save approximately \$53 billion in fossil fuel power plant investments.

Investing in renewable energy. Renewable energy offers the opportunity to build a more sustainable energy path in terms of supply, reduction of carbon emissions and energy security. Its development in the last decade has shown that it is not only an environmentally sound alternative to fossil fuels, but also a way to reduce import bills and generate new jobs³. According to EIA, LAC will require cumulative investment in energy-supply infrastructure of approximately \$48.3 billion between 2007 and 2030 if investments were on renewable energy sources (in comparison to \$64.1 billion if no renewable energy are added to the region's matrix), but could potentially recover the double of this investment. In this context, LAC needs to overcome the impasse in hydro power, which is currently underutilized (under current plans only 28% of hydroelectric potential will be exploited by 2015). This poses some important trade-offs, which can be minimized with appropriate environmental safeguards.

Promoting regional integration approaches. The integration of energy efficiency and renewable energy policies and programs on a regional scale could help LAC to reduce implementation costs and promote cross-border knowledge transfer. National initiatives could be improved by the creation of regional networks of excellence in renewable energy and energy efficiency, with the objective to improve technical capacity and provide support to decision makers. The harmonization of standards will also lead to the development of regional markets for new energy technologies, equipment, and materials, which would create economies of scale, thereby lowering costs⁴.

Pooling access to financial mechanisms for climate change and renewable energy. The Stern Report estimates that the global cost of climate change mitigation - for a 550 parts per million (ppm) trajectory⁵ - will be approximately 1% of world GDP. There are a few new financial mechanisms designed to assist developing countries in mitigation efforts, including the Climate Investment Fund (CIF) which supports investments to transition to a low carbon and climate resilient development path. Regional prioritization and coordination of climate change and

³ The German example shows that the costs associated with the implementation of the Renewable Energy Sources Act (EEG) were estimated at 3.3 billion Euros in 2006, and had extraordinary results in terms of benefits: a 12% share of renewable sources in the energy matrix; 100 million tons of CO₂ reduction; 230,000 people employed; and 9.4 billion Euros in savings realized, both in energy expenditure and avoided climate costs.

⁴ An example is the development of the Energy Star label, which in 2007 alone, saved enough energy to avoid greenhouse gas emissions equivalent to those from 27 million cars, while saving \$16 billion on utility bills.

⁵ Mitigation costs estimations depend on the chosen scenario of GHG accumulation trajectory. Today's accumulation is equal to 383 ppm CO₂ (as of 2008). The Stern Report presents a reference scenario (no action is taken), and a 550 ppm trajectory scenario that refers to a scenario where some action is taken by governments but is not the optimal solution. More stringent scenarios would try to reduce the accumulation to 450 ppm trajectory or even 350 ppm trajectory.

renewable energy goals may help to define a strategy for joint access to the CIF, thereby maximizing economies of scale in the deployment of funds in the region.

Potential areas for policy initiatives

- Prioritize institutional capacity building to address energy efficiency and renewable energy;
- Increase investment in technology, research, development and demonstration;
- Establish incentives for renewable energy deployment and fuel switching, according to each country energy matrix;
- Harmonize energy efficiency standards and labeling across the region for products and buildings to facilitate quick adoption and increase user acceptance and awareness;
- Establish energy efficiency targets across sectors, with a focus on transport and buildings;
- Stimulate investment in sustainable biofuels production by changing tax incentives and subsidies to only apply to biofuels that meet sustainability criteria;
- Increase education and awareness on climate change, energy efficiency and renewable energy to foster implementation and acceptance;
- Bundle climate mitigation projects throughout the region to access new financing mechanisms such as the Climate Investment Fund and existing mechanisms of the Kyoto Protocol, such as the Clean Development Mechanism, which allows economies of scale when accessed with regional programs.

Infrastructure, Transport and Trade Costs

Transport and logistics costs are high in the region. They stand between 16% and 26% of GDP, compared to an average of 9% in OECD countries. Such costs are more restrictive than trade barriers: for example, in food, *ad valorem* tariff rates range from 3 to 12%; but by the time products reach final consumers, the logistics component often exceeds 50% of the final price. Small firms - the region's engines of employment and growth - suffer disproportionately from high logistics costs (averaging 48% of the value of their sales).

There is tremendous scope for cost reductions. A reduction of logistics costs from port efficiency gains, road haulage improvements, the expediting of customs clearance and border crossings, better inventory practices and increased capacity and competition in storage and warehousing could reduce logistics costs by 20 to 50%. This would mean a permanent reduction in the baseline cost of food products ranging from about 5 to 25%⁶.

Public policies can help to reduce transport costs. While the cost of logistics services seems to lie in the hands of the private sector, government action and inaction have an important influence: they can indirectly impact every step in the logistic chain, from ocean shipping to domestic trucking to transfers, storage and warehousing; more directly, they can influence customs clearance and border crossings. The recent food prices crisis highlighted some priority areas for policy interventions:

- **Ocean shipping costs.** Countries which have coherent port development strategies that link to inland networks, allow for cargo agglomeration, provide for fast turnaround of large

⁶ The impact on regional economies is heterogeneous. For net importers, costs associated with refrigerated cargo capacity and services are the critical bottlenecks. For net exporters, bulk storage, handling and transporting are the primary concerns. The island countries of the OECS, for example, should work on reducing the cost of refrigerated containerized traffic. Peru, Brazil, Bolivia and Colombia, on the other hand, would benefit from improvements in the importing, warehousing and distribution process for dry bulk goods.

vessels, and utilize anti-trust regulations to assure competition among carriers can benefit from faster services, economies of scale and lower prices.

- **Inland transportation.** Both the cost of international road transport and domestic trucking movements are driven more by infrastructure quality and service competition than by distance. Government prioritization of maintaining roads and encouraging competition in warehousing, transfer stations and in trucking services may have a significant impact on the prices of delivered foods.
- **Trade facilitation, customs clearance and border crossings.** Trade facilitation plays an important role in facilitating or hampering the efficient and timely movement of products: in LAC delays in customs clearance increase transport costs by between 4 and 12%.

Regional coordination may further reduce transport costs. Regionally improved and integrated transportation corridors and networks would reduce the costs for the end consumer. A doubling of the number of border crossings could reduce transport costs by an estimated 6%. Coordinated complementary reforms in customs clearance and warehousing would significantly cut costs further. Additionally, regional integration and agglomeration of cargo services would produce economies of scale.

Potential areas for policy initiatives

Land Transportation

- Focus on speed and ease of travel, and on competition in trucking services provision;
- Improve road quality, keeping in mind that the present value of maintaining a road regularly is an order of magnitude less than rehabilitating it once every ten years;
- Strengthen trucking regulations and enforcements;
- Facilitate the development of ample storage, warehousing, and transfer facilities;
- Strengthen transport infrastructure investment planning based on sophisticated freight flow modeling.

Maritime Transport

- Focus on investments, operational efficiency and landside linkages for greater connectivity;
- Anticipate growth and invest in landside and waterside capacity;
- Introduce spatial planning into the notion of port location and expansion;
- Encourage consolidation or coordination of small private operators;
- Use competition authority to investigate vertical and horizontal integration issues.

Trade Facilitation, Customs and Border Crossings

- Improve clearances/inspections through better cross-border collaboration and coordination between phytosanitary and customs services;
- Set export clearance times as the standard for import clearance times;
- Simplify customs declarations forms, procedures and clearance;
- Use risk-based selectivity process for inspections;
- Harmonize customs standards for sub-regions;
- Reduce fines for minor documentation errors.

III – Policy Questions for Furthering Regional Integration and Cooperation

Some policy questions to be considered for discussion include:

- Which policy areas require a regional approach and enhanced policy coordination? What institutional architecture and financial instruments are required to promote and implement a coordinated regional policy agenda?
- How can the international and regional financial institutions strengthen their role to promote a harmonized policy, legal, and regulatory environment that facilitate regional projects and integration? What is the most appropriate division of labor across institutions?
- Do the international and regional financial institutions need to develop new financial products to support cross-border integration projects, particularly multi-country lending instruments?
- Do countries in the region require technical assistance and capacity building to promote long-term strategic and technical consensus on priority projects that offer the greatest integration returns and economic benefits?