SUBPROGRAMME 2: PRODUCTION AND INNOVATION

Presentation

The food, energy, economic and financial crises that undermined the global economy at the turn of the last decade unmasked significant structural differences in the economies of the region and in their capacities to respond to external shocks. Common underlying factors, however, are the persistence of structural heterogeneity (i.e. marked asymmetries between segments of enterprises and workers and the fact that the bulk of jobs are concentrated in relatively-low-productivity sectors), weak structural change and low production diversification. Understanding the main drivers of growth in pre- and post-crisis years and the process of accumulation of techno-productive and institutional capabilities is vital for sustaining steady progress and assisting the countries of the region to foster long-run productivity growth and greater equality (including gender equality) in the region.

The last few years following the crises have brought attention —again— to industrial policies and the need for macroeconomic policies that can promote productive development without compromising macroeconomic stability. This is summed up in the term “macroeconomics for development”, an ECLAC coinage. It marks a rupture with the period of economic liberalization which, in the previous two decades, redefined the region’s industrial structure through openness to international trade and competition.

The renewed interest in industrial policies is an opportunity to foster structural change, promote production diversification, encourage the development of knowledge-intensive sectors and technological capabilities, and reduce the productivity gap with other regions and the high degree of heterogeneity in domestic productivity. These improvements are key requirements for competitiveness in globalized markets and to determine the intensity and direction of post-crisis recovery. The region needs to recompose and redefine the productive structure at the microeconomic level, to avoid the risk of “reprimarization” that comes with high commodity prices. The challenge is to take advantage of the favourable terms of trade to promote more diversified and inclusive economies.

Heterogeneity in productivity and technological capabilities is especially significant in the agricultural sector, where a modern, highly productive and technology-intensive agro-exporting sector coexists with a large, diverse and heterogeneous traditional sector in which productivity levels have increased little during the last decades. Closing these productivity gaps provides an opportunity for an environmentally friendly increase in food production because it does not entail extending the agricultural frontier. Innovation will play a strategic role in making the most of such opportunities, as well as in increasing the value added of agricultural exports, diversifying markets and products and promoting a more inclusive form of agriculture. Innovation will also be instrumental in providing more sustainable ways to increase food production through intensification in lands already cropped or in new lands which can be suitable for agricultural production.

In the manufacturing sector, small and medium-sized enterprises (SMEs) also lag far behind other enterprises in productivity and export capacity. Differences in productivity within countries (between large enterprises and others) are much greater in Latin America than in developed countries, reflecting a weakly diversified productive structure and lack of linkages between sectors and firms. Large enterprises (both national and transnational) can play an important role in determining the future profile of the productive structure, but microeconomic market incentives are biased towards traditional sectors.
Productive development policies should also start addressing the new challenges derived from climate change and increased environmental concern. This is especially relevant for regional agriculture. The task of addressing climate change in agriculture, for example, demands more R&D and innovation in varieties more resilient to water and heat stresses; more R&D and innovation in production systems better adapted to climate variability and extreme weather events; more socioeconomic research on how farmers perceive climate change and how they react to it. Lastly, R&D and innovation policies are also required for moving towards a lower carbon economy, i.e. with a better balance of greenhouse gas (GHG) emissions along the production chains. The region should pay attention to these new production paradigms, which very likely will define competitiveness in the next few decades.

The growing awareness within national and local governments regarding the need for proactive agricultural and industrial policies, as well as for SME policy is, however, hindered (in many countries of the region) by weak institutional capabilities that constrain public-policy formulation and implementation. Moreover, countries must overcome the loss of synergy and waste of resources that have resulted from their previously fragmentary approach. Without falling into inefficient centralism, players should be encouraged to coordinate their actions strategically within a systemic perspective, paying attention to the development of institutions capable of providing long term stability.

In the context of post-crisis recovery, the role of institutions and the rules governing markets will need to be enhanced and the role of the State re-defined to provide direction and leadership in order to diversify production structures and build more inclusive societies. New paradigms must be developed and disseminated —e.g., in the fields of biotechnology, nanotechnology and information and communication technologies (ICT)—, whose potentialities have not been fully explored and for which financial support will be needed should private funding prove unavailable. The revolution that comes with the convergence of these new technologies will change production processes as we know them today and Governments must do all in their power to ensure that the region keeps pace.

Against this backdrop, the strategic vision of this subprogramme will be based on: (i) the need to strengthen public-policy efforts to achieve productive convergence and meet goals of technological development and productivity in all productive sectors and (ii) a comprehensive approach to innovation and technology, which is summarized in terms of a national innovation system. In this respect, emphasis will also be placed on new technologies aimed at increasing social innovation and strengthen the competitiveness of small-scale family agriculture and small and medium-sized enterprises (SMEs). The subprogramme will be aimed at further strengthening the development of production sectors, fostering production convergence and reducing productivity gaps in Latin America and the Caribbean, in particular in relation to the following: (a) agriculture, agro-industry, other industrial activities and services; (b) foreign investment and transnational corporations; (c) domestic economic agents, ranging from family farming and small firms to large domestic groups, and relations between public and private agents; and (d) innovation and new technologies, with emphasis on information and communications technologies, biotechnologies and nanotechnology.

The proposed activities seek to pursue the medium-term objectives of the subprogramme and to achieve the expected accomplishments during the biennium. The progress achieved will be measured by the indicators described below.
Logical framework of the subprogramme:

**Objective of the organization:** To foster productivity convergence and innovation in Latin America and the Caribbean with due consideration to sustainable development and the linkages with the global economy

<table>
<thead>
<tr>
<th>Expected accomplishments of the secretariat</th>
<th>Indicators of achievement</th>
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<tr>
<td>(a) Strengthened capacity of Latin American and Caribbean Governments to formulate policies and strategies for transforming the production structure with a focus on the most innovative sectors and the creation of linkages between firms as well as between sectors</td>
<td>(i) Increased number of policies or measures adopted by countries of the region aimed at transforming their production structures in line with ECLAC recommendations</td>
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<td>(b) Strengthened institutional knowledge and capabilities of Latin American and Caribbean countries to foster productivity convergence, encourage innovation and support the incorporation of new technologies to productive and management processes</td>
<td>(ii) Increased number of Government authorities and public institutions who acknowledge that they have benefited from technical cooperation services provided by ECLAC or from analytical inputs at inter-governmental meetings aimed at changing their production structures</td>
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| (i) A higher percentage of participants in seminars, workshops or training courses of the subprogramme who acknowledge that they have benefited from technical cooperation services provided by ECLAC to improve their capacity to foster productivity convergence, encourage innovation and support the incorporation of new technologies |
| (ii) Increased percentage of readers who acknowledge that they have benefited from the analysis and policy recommendations relating to investment patterns, competitiveness, agricultural and rural development contained in the publications *Foreign Direct Investment in Latin America and the Caribbean*, *The Outlook for Agriculture and Rural Development in the Americas* and other selected publications of the subprogramme |

**Strategy**

The Division of Production, Productivity and Management, which has recently been restructured along the thematic lines to be addressed, will be responsible for the implementation of the subprogramme. Work will be carried out in close coordination with other ECLAC divisions and offices, in particular the International Trade and Integration Division and the Commission’s national offices in Buenos Aires and Montevideo in areas relating to internationalization of small and medium-sized enterprises (SMEs), productive development policies and analysis of specific productive sectors. The Division will also continue to mainstream the gender perspective into the work of the subprogramme and consolidate the new area of work on information and communication technologies (ICTs) and gender, which will be developed for the twelfth session of the Regional Conference on Women in Latin America and the Caribbean, to be held in 2013. The strategy to be followed will take special account of the relevant provisions relating to the goals and targets deriving from the Millennium Declaration, particularly on
reducing extreme poverty and hunger by promoting productive employment, the global partnership for development, a commitment to good governance, development and poverty reduction and the dissemination of the benefits of new technologies, especially ICTs.

Emphasis will be placed on the following areas: new technologies (information and communications technologies, biotechnologies for health, industry and agriculture, new energy sources and nanotechnologies), information systems, SME promotion policies, and productive development policies.

Under the subprogramme, economic analyses will be conducted together with applied research based on the generation, processing and analysis of information and indicators in various databases; the results will be disseminated and policy recommendations will be submitted to Governments and other relevant stakeholders. The Division will promote policy advocacy and the exchange of experiences and best practices with respect to the dynamics of productive development among stakeholders at the regional, national and local levels through meetings, seminars and electronic forums. In addition, the creation and operation of networks will be supported to generate, update and disseminate knowledge. The strategy will also include the provision of technical cooperation services, such as specific training courses and workshops.

In order to achieve the expected accomplishments, strategic partnerships will be established with Governments and institutions, at the national and local levels and in the various subregions (Southern Cone, Central America, Andean Community, and the Caribbean).

The main beneficiaries of the subprogramme will be Government authorities and public officials of the countries in the region as well as a variety of civil society organizations, academic and private-sector institutions, and local, regional and subregional organizations. The subprogramme will continue to carry out consultations and work in close collaboration with high-level authorities responsible for innovation, agricultural and industrial development, investment and the promotion of SMEs and the specialized agencies, funds and programmes of the United Nations system.

Member States will also benefit from the increased visibility of the work of the subprogramme through the continuous updating and development of the Commission’s website and databases, and wide dissemination of its main publications and findings among policymakers, academics and other stakeholders both within and outside the region at international events and key forums.

External factors

The objective and expected accomplishments of the subprogramme will be achievable based on the following conditions:

(a) The regional authorities continue to attach a high priority to improving their awareness and knowledge of issues covered by the subprogramme as well as to making the relevant statistics available at both the regional and the international level.

(b) The international community continues to support and attach a high priority to the region’s concerns and needs with respect to its productive development policies in the context of the regional and international development agenda. In this regard, guidelines established by the General Assembly and the Economic and Social Council as well as the internationally agreed development goals, including those deriving from the Millennium Declaration, will be taken into account.
Activities

Subject area 2.1: Analysis of recent developments and trends in the region's production structure and its sectors

1. Organization and substantive servicing of meetings

   Ad-hoc expert group meetings

   (i) A meeting of experts to analyse recent developments in structural change in the region. (high correlation with expected accomplishments 1 and 2).

   (ii) A meeting of experts to analyse regional and national policies for the agricultural sector in the Latin America and the Caribbean and other development regions in the world, especially policies for family agriculture (high correlation with expected accomplishments 1 and 2).

2. Recurrent publications

   (i) The Outlook for Agriculture and Rural Development in the Americas: A Perspective in Latin America, 2014. Publication that reviews trends and policy developments in the agricultural sector and provides updated statistical information; it includes every year a special report on emerging issues in agriculture and rural development. It is jointly produced by ECLAC, the FAO Regional Office for Latin America and the Caribbean and the Inter-American Institute for Cooperation on Agriculture (IICA) (high correlation with expected accomplishment 1).

   (ii) The Outlook for Agriculture and Rural Development in the Americas: A Perspective in Latin America, 2015. Publication that reviews trends and policy developments in the agricultural sector and provides updated statistical information; each year, a special report is included on emerging issues in agriculture and rural development. It is produced jointly by ECLAC, the FAO Regional Office for Latin America and the Caribbean and IICA. (high correlation with expected accomplishment 1).

   (iii) A study on the dynamics of the production structure of the countries of the region. Special attention will be paid to the similarities and differences in the production structures and their policy implications (high correlation with expected accomplishment 2).

   (iv) A study on the productive development policies applied in selected subsectors and countries of the region (high correlation with expected accomplishment 2).

3. Non-recurrent publications

   (i) A study on structural change in the agricultural sector in the region and its impacts on relevant agricultural and rural development policies. This study will take advantage of new agriculture census data that will be available by 2014 (moderate correlation with expected accomplishment 1).

   (ii) A study on structural change in the rural economies in the region and its impacts on relevant sectoral and rural development policies. This study will take advantage of new agriculture and population census data that will be available by 2014 (moderate correlation with expected accomplishment 1).
(iii) A study on technological and institutional innovations and policy developments for climate change mitigation and adaptation in the region (high correlation with expected accomplishments 2).

(iv) Departmental Competitiveness Ranking of Colombia (high correlation with expected accomplishment 1).

(v) A study on regional development in Colombia (high correlation with expected accomplishments 1 and 2).

The ECLAC office in Bogotá will be responsible for the execution of the activities referred to in subparagraph 3(iv) and (v), which will be partially subject to the availability of extrabudgetary resources.

4. Other substantive activities

Technical material

(i) Development, maintenance and update of databases on agriculture and the rural economy, manufacturing industry and ICT, based on information from censuses, household surveys or other microdata sources for the Latin American and Caribbean countries.

(ii) Development, maintenance and update of the software for the analysis of the competitiveness of nations (TRADECAN).

5. Advisory services

(i) Provision of technical cooperation services to the countries of the region upon request in policymaking relating to promotion of agricultural and rural development and the development of mechanisms for incorporating small-scale family farming into value added agricultural and agro-industrial chains (high correlation with expected accomplishments 1 and 2).

(ii) Provision of technical cooperation services to the countries of the region upon request in areas relating to the design and implementation of productive development and competitiveness policies and strategies (high correlation with expected accomplishments 1 and 2).

(iii) Provision of technical cooperation services to the countries of the region upon request in areas relating to the design and coordination of regional and national innovation and productive development policies (high correlation with expected accomplishments 1 and 2).

6. Training courses, seminars, workshops

Cooperation with Government entities, academic institutions, universities, international organizations and regional bodies for the development of training activities in areas relating to productive and corporate development in agriculture, the rural economy and industry at the regional, national or local level (moderate correlation with expected accomplishments 1 and 2).

7. Technical cooperation projects

During the biennium, extrabudgetary analytical projects will be launched on recent developments and trends in the region's production structure and sectors.
The implementation of operational activities including advisory services, training activities and the implementation of technical cooperation projects will be subject to the availability of extrabudgetary resources.

**Subject area 2.2: Analysis of the behaviour of the main economic agents in the region**

1. **Organization and substantive servicing of meetings**

   **Ad-hoc expert group meetings**

   (i) A meeting of experts to examine investment strategies of transnational companies in subsectors and countries of the region (high correlation with expected accomplishment 2).

   (ii) A meeting of experts to analyse the main developments regarding support policies for SMEs in selected subsectors and countries of the region (high correlation with expected accomplishment 2).

2. **Recurrent publications**

   (i) *Foreign Direct Investment in Latin America and the Caribbean 2014* (high correlation with expected accomplishment 1).

   (ii) *Foreign Direct Investment in Latin America and the Caribbean 2015* (high correlation with expected accomplishment 1).

3. **Non-recurrent publications**

   (i) A study on the dynamics of transnational corporations in the region in selected subsectors and countries of the region (high correlation with expected accomplishment 2).

   (ii) A study on policies to promote innovation in SMEs in selected countries of the region (high correlation with expected accomplishments 2).

   (iii) A study on the policies for SMEs in selected countries of the region (high correlation with expected accomplishment 2).

   (iv) A study on the links between productive and social development with a territorial and gender perspective (high correlation with expected accomplishments 1 and 2).

   The ECLAC office in Buenos Aires will be responsible for the execution of the activities referred to in subparagraph 3 (iv), which will be partially subject to the availability of extrabudgetary resources; the office will also provide substantive support in connection with other outputs of the subprogramme.

4. **Technical material**

   Development, maintenance and updating of statistical information on investment and corporate activity of main economic agents in the region (high correlation with expected accomplishment 1) (high correlation with expected accomplishments 1).
5. Advisory services

(i) Provision of technical cooperation services to the countries of the region upon request in policymaking for the promotion of foreign direct investment (FDI) and subcontracting of networks of transnational companies and local firms (high correlation with expected accomplishments 1 and 2).

(ii) Provision of technical cooperation services to the countries of the region upon request in areas relating to small and medium-sized enterprises (high correlation with expected accomplishments 1 and 2).

(iii) Provision of technical cooperation services to the countries of the region upon request in areas relating to small-scale family agriculture (high correlation with expected accomplishments 1 and 2).

6. Training courses, seminars, workshops

(i) Cooperation with Government entities, academic institutions, universities, international organizations and regional bodies for the development of training activities in areas relating to foreign direct investment (FDI) strategies at national and local levels (high correlation with expected accomplishments 1 and 2).

(ii) Cooperation with Government entities, academic institutions, universities, international organizations and regional bodies for the development of training activities in areas relating to SME promotion (high correlation with expected accomplishments 1 and 2).

7. Technical cooperation projects

During the biennium, it is expected that extrabudgetary projects will be launched on foreign direct investment, SMEs and small-scale family agriculture.

The implementation of operational activities including advisory services, training activities and the implementation of technical cooperation projects will be subject to the availability of extrabudgetary resources.

Subject area 2.3: Analysis and trends in innovation, technology and knowledge

1. Organization and substantive servicing of meetings

Ad-hoc expert group meetings

(i) A meeting of experts to analyse the region’s priorities regarding innovation for development (high correlation with expected accomplishment 2).

(ii) A meeting of experts to study the trends in the use of ICT and related networks at the local, national and regional levels (high correlation with expected accomplishments 1 and 2).

2. Non-recurrent publications

(i) A study on strategies for the development, incorporation and convergence of new technologies at the national and regional level for selected types of economic agents and countries (high correlation with expected accomplishments 1 and 2).
(ii) A study on new technologies and innovation for development (high correlation with expected accomplishments 1 and 2).

(iii) A study on innovation for sustainable productive development in SMEs in selected subsectors and countries of the region (high correlation with expected accomplishments 1 and 2).

(iv) An updated publication of the biotechnology project and enterprises map of Argentina (high correlation with expected accomplishments 1 and 2).

(v) A study on trends in the use of ICT among economic agents and subsectors in countries of the region (high correlation with expected accomplishments 1 and 2).

(vi) A study on industrial and innovation policies implemented in Brazil since 2002 and their impact on institution-building (high correlation with expected accomplishments 1 and 2).

The ECLAC offices in Buenos Aires and Brasilia will be responsible for the execution of the activities referred to in subparagraph 2 (iv) and 2 (vi), respectively, which will be partially subject to the availability of extrabudgetary resources; they will also be responsible for providing substantive support for other outputs of the subprogramme.

3. **Advisory services**

(i) Provision of technical cooperation services to the countries of the region upon request in areas relating to the development of innovation systems at the national, sectoral and local levels (high correlation with expected accomplishments 1 and 2).

(ii) Provision of technical cooperation services to the countries of the region upon request in areas relating to policies in ICTs and other new and emerging technologies (high correlation with expected accomplishments 1 and 2).

The ECLAC office in Buenos Aires will be partially responsible for the execution of the activities referred to in subparagraph 3, which will be partially subject to the availability of extrabudgetary resources.

4. **Training courses, seminars and workshops**

(i) International School on Latin American economies, 2014 (high correlation with expected accomplishments 1 and 2).

(ii) International School on Latin American economies, 2015 (high correlation with expected accomplishments 1 and 2).

(iii) International School on Innovation Policy Management in Latin America, 2014\(^1\) (high correlation with expected accomplishments 1 and 2).

(iv) International School on Innovation Policy Management in Latin America, 2015 (high correlation with expected accomplishments 1 and 2).

\(^1\) The execution of the activity is subject to the availability of extra budgetary resources.
(v) Cooperation with Government entities, academic institutions, universities and regional bodies for the development of training activities in areas relating to innovation for development; and policies for ICTs and other new and emerging technologies (high correlation with expected accomplishments 1 and 2).

The execution of activities (iii) and (iv) are subject to the availability of extra-budgetary resources.

5. Technical cooperation projects

During the biennium, extra-budgetary projects will be launched on new and emerging technologies and policies to promote science and technology and innovation systems.

The implementation of operational activities, including advisory services, training activities and the implementation of technical cooperation projects, will be subject to the availability of extrabudgetary resources.