

Trends analysis of the urbanization, industrialization, and energy components of the LAC program:

The situation: Latin America is now at the "crossroads" of economic recovery and growth, widespread privatization, and emerging international trade opportunities. Economic reforms, patterned on the US and EU free market principles, have smoothed the severe "boom and bust" economic cycles. The region is experiencing an unprecedented expansion of its free market economies and emerging as an important market in the international arena. Nevertheless, the negative correlates of this economic growth are rapid urbanization (over 75% of the population today) and industrialization, with unprecedented energy demand and increased, and in most cases, unchecked industrial pollution. LAC/RSD is attempting to steer the LAC countries to a course of sustainable development combined with economic prosperity by introducing principles of clean production and energy.

Industries' contribution to economy: Industrial production is a major factor in the recent economic growth of Latin American countries. The average contribution to GDP of industrial production in these countries was 24% in 1994. Industrial production grew on average by 75%, as measured in US dollars, from 1980 to 1995. In individual countries this contribution ranged from 41% in Venezuela and 39% in Brazil, to 9% in Panama and Bolivia. The major polluting industries in the region include: power generation, mining, petroleum refining, cement, food processing, pulp and paper, and metal finishing. In general, one or two industries tend to dominate the GDP in a LAC country. For example, mining (and fishmeal) dominates about 50% of GDP in the Andean countries of Peru, Ecuador, Bolivia, and Chile; whereas coffee, agriculture, and shrimp farming exports dominate in Central American countries.

Extent of foreign investment: Last year (1997) alone, according to ECLAC, the total foreign direct investment into LAC topped \$50 billion, with 25% going to Brazil. This year, it is expected to be higher, considering the poor investment conditions in Asia--the region's primary rival for funds.

Principal investments, with the US multinationals as the leaders, were in the energy, banking, mining, oil production and manufacturing sectors. Projections are that over the next three years \$60 billion will be invested in energy and telecommunications sectors alone. Investment is also doubling in the mining sector for a total of \$14.3 billion in 1997.

It is estimated that over \$770 billion will be required in the LAC energy sector by the year 2010 to meet demand fueled by

population growth and economic expansion, with \$330 billion in the hydrocarbon sector. This demand cannot be met by traditional fuel sources and existing energy infrastructure. Governments alone cannot address this growth in demand. There is need for private sector investment from international as well as domestic sources to provide additional capital, expertise and technology.

Environmental impacts of growth and industrial amelioration: The increasing growth in industry brings with it an intensification of environmental problems with very little support to reduce or prevent the resulting pollution. The region's governments lack the policy, technology, and political will to adequately treat sewage, prevent/treat industrial pollutants, produce clean energy, provide potable water, and adequately handle/dispose of solid wastes.

Currently, USAID LAC presence countries are starting to regulate the discharge of industrial wastes. However, compliance with, and enforcement of, these new regulations is extremely limited. Often industrial firms lack the financial incentives to comply or awareness of technologies that will prevent pollutants, improve energy efficiency, and provide clean production and energy to improve productivity. Thus the region's contribution to the world's pollution and greenhouse gases is accelerating. A recent Worldwatch study placed the region in a worsening position on 6 of 7 environmental indicators over the past decade. Only Africa's profile on these indicators was worse.

However, there is much that can be accomplished in the current environment. Many countries are striving to balance industrial production and environmentally sustainable practices. This is the time to develop effective environmental policy and regulations, in a paradigm shift, that combine enforcement, incentives and clean technology, with a particular emphasis on "win-win" approaches.

USAID LAC strategies for industrial pollution control: A total of 18 USAID LAC Mission's programs were evaluated and 10 were found to have some SOs related to US private sector environmental technology, goods, or services. These programs, plus the Summit of the Americas supporting partnerships in energy and pollution prevention, have allowed the Missions to avail themselves of the powerful tools of market incentives, pollution prevention, and proper supporting legislation to address the balance between industrialization/urbanization and environment.

The current LAC urban/industrial strategy is to focus upon targeted industry groups (food processing, non-ferrous metal mining, metal finishing/electroplating, and tanneries in the Andean Pact countries, and the hotel/ecotourist sector in the Caribbean). The program consists of presenting seminars, developing workshops, and conducting environmental and energy

audits to create awareness and an ethos of prevention and "value added" to industrial and energy processes. Currently 9 programs utilize some form of pollution prevention approach, usually derived from the nearly closing EP3 G/Env project. These include: El Salvador, Ecuador, Peru (cooperating with Swiss), Bolivia, Jamaica, Chile (close out), Paraguay (transferred to IDB), Mexico (transferring to UNIDO), and Brazil (through the EPA and Summit)

USAID LAC Long Range Strategies: As trade continues to expand in the Western Hemisphere, strategic environmental and economic policies will be critical to ensure sustainable development in the Latin America and Caribbean (LAC) region. Promoting sustainable development practices that can reduce adverse environmental effects will be particularly important given the anticipated growth in the industrial sector due to increased foreign investment and privatization efforts.

USAID has invested significant resources to demonstrate the economic and environmental benefits of cleaner production to industry and to assist governments in developing policies and regulatory frameworks that enhance industry's flexibility in using these approaches to meet compliance objectives. Key USAID initiatives include: HFTE, Environmental Initiative for the Americas (EIA), Environmental Pollution Prevention Project EP3), Environmental Health Project, Environmental Law Program ELP), NASDA industrial grants, among others.

The Future: USAID must elect the best course of action for future regional initiatives to build on its past efforts and provide continued leadership. AID's current challenge is to influence trends in government regulations, trade policy, and foreign investment to ensure that approaches such as cleaner production and market-based incentives are imbedded in these initiatives to support long-term growth, competitiveness and sustainability of both industrial growth and the natural environment. Other OECD countries, in particular Finland, Germany, Switzerland, and Denmark are also investing significant amounts to promote cleaner production approaches in the region. Japan, through JICA, is investing in environmental monitoring laboratories and stations. In future, support for clean technology centers established by USAID in Bolivia, Paraguay, Mexico, and Ecuador may be shared with these countries or other funding sources¹.

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As an example, in Peru the USAID Mission plans to set up a center jointly with the Swiss. This regional center will provide a focus for future clean production activities and a central repository for clean production information and expertise.

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