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## **(Southern Cone**

*Abstract: The southern portion of South America (Southern Cone) includes a broad diversity of ecoclimates, from rain forest and mountain glaciers to fertile lowlands and deserts. The region is on a course toward increased political stability, regional integration, and socioeconomic development; however, the road ahead will require attention to social and environmental practices and policies as the area's societies attempt to balance growth and sustainability.*

The expression *Southern Cone* refers to the cone-shaped area of South America located south of the Tropic of Capricorn. Although geographically this includes part of southeastern Brazil, in terms of political geography the Southern Cone has traditionally comprised Argentina, Chile, Paraguay, and Uruguay. Starting in the 1990s, and especially since the creation of the Southern Common Market (SCM) in 1991, the term is often used to refer to a larger area also including Brazil and Bolivia. Countries of the region are dealing with sustainability issues in relation to such processes as increased development and population growth, intensification of agriculture, and expansion of mining activities and fossil fuel extraction. This also involves massive regional initiatives to develop transport and communication infrastructure to support the process of regional integration, which raises significant sustainability issues.

### **History**

The countries of the Southern Cone achieved independence from Spain (from Portugal in the case of Brazil) in the early nineteenth century, and by the 1870s the populations of most of them had doubled or even tripled. Starting in the mid-nineteenth century, Argentina, Chile, Uruguay, and Brazil attracted large-scale immigration, with Argentina alone receiving around six million European immigrants between the 1870s and 1930. Until the late nineteenth century, the region experienced ongoing civil and border wars.

These included the Paraguayan War (1864–1870)—a traumatic conflict in which the allied armies of Brazil, Argentina, and Uruguay destroyed much of Paraguay’s economy—and the War of the Pacific (1879–1883)—in which Chile defeated Bolivia and Peru, a war fought largely for the control of nitrate and other mineral deposits. Only in the last two decades of the nineteenth century did most of these countries develop into stable nation states with clear territorial control, although border disputes among Southern Cone countries still persist. Some military confrontations also took place in the twentieth century, among which was the Chaco War (1932–1935) between Bolivia and Paraguay, connected with the control of oil reserves and fueled by the activities of multinational oil companies.

Although during much of the twentieth century the Southern Cone as a whole was characterized by highly unstable politics, becoming particularly notorious for brutal military dictatorships in the 1970s, the histories of the individual countries vary considerably. While Argentina has faced almost continual institutional disruption and cyclical economic instability since the 1930s, Chile and Uruguay have maintained greater institutional stability. Since the 1980s, the return to democracy in the Southern Cone, along with the promotion of regional integration through the creation of the Southern Common Market in 1991, have created new possibilities for achieving political and economic stability in the region (UNDP, 2004; OHCHR-UNDP, 2004). These trends have been strengthened in recent years as a result of significant socioeconomic, institutional, and political transformations whereby the region has achieved a greater degree of autonomy in all these dimensions in the international domain. These trends include the emergence of Brazil as a world economic power, the regional impact of Brazil’s emergence, and the increasing political assertiveness of the region’s national governments, which led among other outcomes to the creation of the South American Union of Nations (UNASUR) in May 2008.

## Geography

A wide diversity of ecoclimatic areas are found in the Southern Cone. The subtropical Andean region reaches its highest point at Aconcagua Mountain (almost 7 kilometers) in Argentina; the Atacama Desert in Chile is one of the driest places in the world; forests in Argentina and Chile range from the subtropical to the subantarctic; large fertile plains (the pampas) stretch across southern Brazil, Uruguay, central-eastern Argentina, and the Patagonian steppes. The climatic spectrum is broad, with clearly defined seasons and high regional variability in annual precipitation, from a low of 100 mm in Patagonia to about 5,000 mm in Chile's Valdivian forest.

The Río de la Plata is the largest drainage basin in the region. Comprising the complex systems of the Paraná, Paraguay, Pilcomayo, Bermejo, Uruguay, and Río de la Plata rivers, it is the second-largest drainage basin in South America and the fifth-largest in the world. The basin contains the most densely populated areas of South America, including large portions of Brazil, Bolivia, Paraguay, Argentina, and Uruguay, and including megalopolises and industrial centers such as São Paulo and Buenos Aires. The economic activities sustained by the basin account for over 60 percent of the combined gross domestic product of its constituent countries (OAS, 2012). The basin has undergone large-scale transformation, especially through construction of massive dams such as Itaipú Dam, located on the border between Brazil and Paraguay. Itaipú remained the world's largest operating hydroelectric plant until the construction of the Three Gorges Dam in China, and it supplies around 25 percent of Brazil's energy needs and over 90 percent of Paraguay's. Other large dams have been built in the basin, including the Yaciretá Dam on the Paraná River, located on the border between Argentina and Paraguay. In the context of the process of regional integration, the Southern Cone is undergoing a massive infrastructure program: the Initiative for the Integration of Regional Infrastructure in South America (IIRSA, its Spanish acronym). IIRSA involves the construction of hundreds of new projects, including dams, river transfers and hydroways, pipelines,

railways, ports, and highways among other issues. The implementation of this regional megaproject is set to introduce potentially irreversible social and environmental transformations, some of which are already underway and have prompted mounting social conflicts (Bank Information Center, 2012; OLCA, 2012).

## **Environmental Issues**

The region's ecosystems have suffered extensive degradation and loss of biodiversity as a result of long-term anthropogenic (human-caused) transformations. Particularly serious are deforestation and resultant soil erosion and desertification caused by farming and overgrazing; construction of large-scale hydraulic works; and industrial and urban pollution of soil, air, and water. The massive dams in the region are thought to contribute to climatic change and play a part in the recurrent floods affecting Paraguay and northeast Argentina in recent decades. Extensive agriculture and forestry have drastically transformed the landscape. This has led to the decline of much indigenous flora and fauna, notably the virtual extinction in large areas of the most valuable timber species such as the *quebracho colorado* (*Schinopsis balansae*) or the *ñandubay* (*Prosopis affinis*), as well as indigenous fish such as the *Mojarra de Valcheta* or “naked mojarra” (*Gymnoscharacinus Bergi*) and the *Puyén* or *Puye* (*Galaxias maculatus*), and mammals including the *yaguareté* (*Panthera onca palustris*), the *capuchino* monkey (*Cebus apella*) the *puma* (*Puma concolor*), the Andean cat (*Oreailurus jacobita*), the *huillín* (*Lontra provocax*), and the *huemul* or South Andean Deer (*Hippocamelus bisulcus*). The increase in single-crop farming (also called *monocropping*) since the late 1980s—particularly genetically modified crops like soybeans but also others destined for the production of agrofuels, especially sugar cane—have triggered radical transformations over large areas, accelerating ongoing processes of soil erosion and pollution resulting from extensive use of agrochemicals.

Since the 1990s the region has seen rapidly expanding mining activities, and even countries without a mining tradition, like Uruguay, are now active in the field. Chile and Bolivia currently depend on mining

for around 23 and 12 percent of their gross domestic product, respectively, while the significance of mining is growing in the other Southern Cone countries as well (United Nations, 2010). For instance, Argentina, Bolivia, and Chile control 85 percent of the known world reserves of lithium, a mineral at the center of the production of batteries for various uses, including mobile phones and electric cars (FUNDAMIN, 2012). Argentina and Chile also have under development some of the world's largest copper, gold, and silver mines, a movement triggered by increasing demand for these metals from China and India. Mining activities are currently a major factor of environmental transformations in the region, particularly in the Andes Mountains, where there are ongoing disputes around the impact of open-pit mining and the use of hazardous substances like cyanide and mercury in mining processes, which are threats to both fragile glacier systems and water resources.

Other important environmental transformations in the region are connected with the expansion of technologies for energy production. Argentina and Brazil are the nuclear powers in the region, having a number of functioning nuclear energy plants and currently developing new projects. Most of these nuclear plants are located in the vicinity of large metropolises like Buenos Aires and Río de Janeiro. Exploitation of fossil fuel reserves has also strained environmental stability, including extraction of the recently discovered gigantic reserves of oil off the shores of southern Brazil; the introduction of hydraulic fracturing (called *fracking*) technologies for the extraction of oil and gas, being used particularly in Argentina; and the expansion of off-shore oil exploration near the Falkland Islands (in Spanish, Islas Malvinas), an area disputed by Argentina and the United Kingdom.

The actual or potential environmental impacts of these activities are not fully understood, and there is a significant degree of sensitivity that often precludes open discussion of these matters. Environmental agencies such as the United Nations Environment Programme have highlighted the urgent need for action on a number of fronts, especially in the designation and enforcement of protected areas to reverse

ecosystem degradation and loss of biodiversity. Although the Southern Cone region has a long record of environmental protection and has contributed to the scientific understanding of environmental processes and their history, environmental concerns tend to rank low among government priorities. Despite the fact that there have been significant changes in this area since the 1980s, and environmental policy has become more important than in the past, most policy decisions related to environmental issues are still subordinated to powerful economic and political interests, and the region continues to be characterized by the prevalence of an agenda that privileges development and economic growth with little regard for sustainability. The Southern Cone is experiencing an unprecedented level of success in the consolidation of democratic institutions, regional integration, and socioeconomic development, which is likely to be facilitated with the rise of Brazil as a global player. One of the major challenges facing the region in this new context will concern the capacity of the local societies to cope with the rapid social and environmental transformations being unleashed by the process.

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See also [

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