

Socio-economic Dynamics and the Environment

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The last three decades of the 20th century brought increasing affluence and power to North America. North Americans not only live long lives in increasingly diverse societies, their production of material wealth and consumption of goods rank among the highest in the world. North American capital, technology, goods, and ideals are fueling globalization, a defining trend of the new millennium that carries both unprecedented risks and extraordinary opportunities.

Human Development

As a region, human development in North America has generally improved over the last 25 years, and the region probably enjoys the highest level of human development in the world. With Canada ranked third and the United States sixth on the Human Development Index (HDI) in 2001, the region has an average HDI value of 0.935, compared to 0.928 for the high-income OECD countries (UNDP 2001).

Despite the overall promising picture of human development,

poverty is not unknown in North America. In general, poverty rates over the last decade in the United States have been declining, while in Canada they have been rising. Although debates about the definition, measurement, and thus extent of poverty continue, data clearly show that some social groups are more vulnerable than others. Poverty is more likely to affect aboriginal people, visible minorities, and single parents (Ross, Scott, and Smith 2000; Dalaker 2001).

Demographics

In contrast with other countries in the industrialized world, particularly those in Europe, population growth continues, and growth rates have stayed constant at about 1.0 percent over the last three decades (UN 2000). Although birth rates are low, there is continuous immigration, mostly from Latin America, the Caribbean and Asia-Pacific. As a result of immigration and higher birth rates among immigrants, the population is becoming more diverse (Blank 2001). Despite net growth, the region's share of global

population has declined slightly, from 6.3 percent in 1970 to 5.2 percent in 2000, or a total of 314 million (UN 2000).

In addition to becoming more diverse, the population is also growing older. The number of people aged 60 and over accounted for 14 percent of the population in 1970 and 16 percent by 2000. It is projected that by 2025 this portion will increase to 25 percent (UN 1998). The gradual 'graying' of the population stems from declining birth rates and increasing life expectancy as well as the ageing of the post World War II generation. The resulting higher number of the elderly in turn has implications for social security systems and for global financial flows also as the growing number of retirees stop saving and instead start drawing down their accumulated assets (World Bank 2000a).

Urbanization in North America over the past 30 years has been characterized more by the spatial distribution of development than by the rate of urban growth. The urban growth rate has remained steady at less than 2 percent per year since 1972, with the share of the urban population increasing from 72 percent in 1972 to 77 percent in 2000. During this time, suburbs expanded and low-density, car dependent settlements surrounding city cores became the dominant settlement pattern. Sprawl was fueled by incentives for home ownership, low gas prices, convenient highway networks, and economic prosperity (UNDP, UNEP, World



Bank, and WRI 2000). At the turn of the 21st century, some were beginning to recognize these trends as socially, economically, and environmentally unhealthy. Commuter traffic congestion siphoned off time and money, quality of life in city centers declined, and sprawl devoured agricultural land, to name but a few problems.

Economic Development

Since 1972, North America has experienced greater regional integration, a higher scale of economic activity, and a gradual shift in economic structure toward the service sector. North American companies have become truly transnational and invested heavily abroad in emerging economies, significantly influencing development patterns elsewhere. Despite periodic drawbacks, North America has strengthened its role as

**GDP per capita, with service sector share:
North America, 1972-1997**

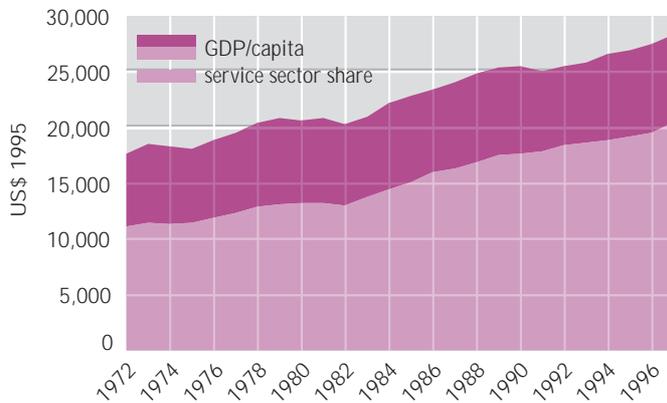


Figure 8
GDP per capita
with service
sector share:
North America,
1972-1997.

*Source: World
Bank 2000*

an engine of the global economy over the past 30 years. Concerns about the vulnerability of the energy sector largely vanished as economic restructuring and the growth of the service sector followed the 1973 and 1979 oil crises (OECD 2000). With the conclusion of a free trade agreement and the emergence of information technology and biotechnology, many regional economies soared through most of the 1990s until the first collapse shook the stock markets in 2000. Taking advantage of the new geopolitical situation, North American companies expanded abroad and became agents of global change (Blank 2001).

It is estimated that the 285 million people (including 135 million workers) of the United States produced about US \$10,000 billion in GDP in 2001; the 31 million people (including 15 million workers) of Canada about US \$670 billion in GDP (US Department of Commerce 2002; US Census Bureau 2001; US Department of Labor 2002; Statistics Canada 2002). GDP per capita grew

strongly in North America over the past three decades, with the service sector share of the economy growing from 63 to 72 percent during the period 1972–1997 (see Figure 8). On a per capita basis, GDP has grown from US \$17,167 in 1970 (at constant 1995 US \$) to US \$28,376 in 1998 (World Bank 2000b), and private consumption per capita has similarly grown from US \$10,667 in 1970 to US \$18,167 in 1997. The growth in GDP, however, contrasts with the stagnation indicated by alternative measures of progress, such as the Genuine Progress Index (GPI), available for the United States and currently under development for Canada (GPI Atlantic 2002).

North America became not only a key global engine for producing economic output, but also a leader in consumption. Although representing only around 5 percent of the global population, the United States and Canada consume nearly 25 percent of energy based on total final consumption figures (IEA 2002). Through economic subsidies and taxation measures that keep labor expensive and materials cheap, key national policies continue to drive consumption and its impacts on the North American and global environment toward unsustainability.

There was evidence of a slight decoupling of energy use and economic growth, yet per capita energy use remained consistently higher than in any other of the world's regions (Mathews and Hammond 1999). Some North American constituencies were also among the

first to introduce economic instruments designed to curtail pollution. A wide range of jurisdictions on the federal, state/provincial, and local levels introduced measures ranging from taxation of ozone-depleting substances through user fees on waste disposal, to tax incentives to promote fuel conservation (IISD 1995). Urban use of private vehicles continues to increase, whereas use of public transportation has generally remained constant (see Figures 51 and 52 in the urban areas section).

Science and Technology

Over the last three decades, the region continued to lead the world in scientific and technological innovation, as illustrated by the fact that 43 percent of global investment in research and development in 1999 came from North America (SciDev.Net 1999). A rising proportion of the investment comes from the private sector, which now represents 67 percent in the United States and 45 percent in Canada. Venture capital continued to be a particularly important source of funding for new technology-based firms, particularly in the information and communication and biotechnology sectors. Spending on higher education is among the highest in the world, with values over US \$18,000/student/year in the United States and over US \$14,000/student/year in Canada in 1998. The region also attracts the largest number of foreign-born scientists (OECD 2001).

According to 1995 data, with 34.8 percent of all patents filed, the United States is a global leader in

worldwide patent applications, and along with Canada also leads in terms of scientific papers published per capita. North America has led worldwide in the diffusion of information and communication technologies, key assets for a knowledge-based economy. Access to computers and the Internet are among the highest in the world, and access rates, including those through high-speed connection, continue to grow. Multi-factor productivity, or the efficiency of the use of capital and labor in the production process, grew rapidly in both countries during the second half of the 1990s (OECD 2001).

Governance

As the world moves toward global integration, political, fiscal, and administrative power is increasingly devolving to states and provinces in North America. This has led to ‘flatter’ corporate structure and decentralized decision-making. At the same time, nongovernmental organizations (NGOs) have emerged as important new social actors, many with little formal authority structure.

But growing interconnectedness has also exposed the region to new risks associated with events halfway across the world. The lethal attacks on New York and Washington DC in September 2001 demonstrated not only interconnectedness, but also exposure, vulnerability, and a need to understand the driving forces of conflict. The protection of American economic interests and investments has become integrated into the concept of national security (IIP

2001). Protests over liberalized trade in Seattle in 1999 and Quebec City in 2001 were evidence of marginal but growing public anxiety about globalization and strengthening support for environmental values and labor rights. At the same time, a trend toward greater corporate accountability and transparency has potentially important implications for regulation and for civil society's engagement in influencing the private sector.

The last 30 years also brought an increasingly conscious struggle to balance continued economic growth with environmental and social objectives. Concern about the state of the natural environment has come to the forefront during this time as environmentalism has become a legitimate social movement. Prodded by the grassroots in the 1970s, governments quickly enacted environmental laws and policies. North America was an early adopter of environmental legislation, the idea of public participation, and at least in the case of Canada, the concept of sustainable development (Barr 1993). Impressive gains were made in controlling many conventional pollutants and in continuing a trend in setting aside protected areas. Environmental concern was further roused during the mid-1980s by a new awareness of the global nature of problems such as deforestation, the greenhouse effect, acid rain and ozone deple-

tion; membership in environmental NGOs (ENGOS) soared. By the 1990s, 'common sense' approaches were advocated as concerns over deficit reduction inspired budget cuts to environmental departments and greater reliance on market incentives and voluntary programs (Dowie 1995; Vig and Kraft 1997). After the UN Conference on the Environment and Development in 1992, both countries became committed to sustainable development as reflected in stated federal goals in Canada and the efforts by many US states and localities in moving forward on Agenda 21 guidelines. More recently, however, it has become apparent that real or assumed socioeconomic interests might force the environment down the list of political priorities (OECD 2000).

Because of its economic and military power, as well as its political and cultural influence, North America is a critical piece in the global puzzle of sustainable human development. As technologically advanced and open societies, Canada and the United States may hold the key to solving many environmental and sustainability problems. At the same time, they contribute more than their fair share to increasing risks, such as climate change. Having provided much of the fuel for globalization, the region now needs to fully engage in not only economic, but also social and environmental development.

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