

per person per year (the equivalent of 8,000 litres of gasoline) are consumed for transportation, heating/cooling, lighting, and industrial processes combined.

Some of the energy we consume is generated by the coal-burning Lakeview Generating Station in Mississauga and by the Pickering Nuclear Station. Once the Darlington Nuclear Station comes on line, a greater proportion of our electricity will be generated in the Greater Toronto bioregion. At the present, however, the bioregion is largely dependent on outside sources of electricity — on energy from distant nuclear and hydro plants, as well as on oil and natural gas brought by tanker, truck, and pipeline from other provinces and countries.

Because so much of the energy we use comes from outside the bioregion, we experience few of the direct effects of energy extraction and transformation. We do, however, suffer the consequences of energy consumption: burning fossil fuels to generate heat and electricity, and to power cars and trucks, releases greenhouse gases and contributes to rising global temperatures, acid deposition, and local air pollution. While nuclear energy avoids most of those air pollution problems, it raises other environmental, economic, and social issues — including the high costs of building nuclear reactors, uncertainty about their long-term safety and viability, health risks to people working in and living near nuclear stations, and how to dispose of nuclear fuel wastes.

Meeting our future energy needs will probably involve conservation programs and alternative energy supplies. It will be cheaper and more environmentally sound to conserve power than to build new generating plants. Further financial and environmental savings may be achieved through



Pickering Nuclear Power Station

alternative energy sources such as wind and solar power. Co-generation — using heat normally wasted when electricity is produced for industrial processes and space heating — may also play an important role in reducing the impact of our energy-consuming lifestyles.

TRANSPORTATION

In the past 10 to 15 years, very little has been invested in transportation infrastructure in the Greater Toronto bioregion, while transportation demand has far outstripped the supply of new roads, transit facilities, and parking spaces. The result is that roads are congested, commuting takes longer, energy is used inefficiently, air pollution increases, and people suffer more stress.

The volume of traffic has been growing, and is expected to continue to grow, at a rate of six per cent per year. If that happens, total traffic volumes will triple by 2011. The Province has few plans for major new highways in the area (although they will build Highway 407, complete Highway 403, and build a new Highway 6), so future transportation needs will have to be met in other ways, if severe gridlock is to be avoided.

At present, 64 per cent of all GTA commuters drive cars to work or school; 25 per cent use public transit; and 10 per cent walk or cycle. The percentage of transit use in the City of Toronto is much higher: in the downtown core, for example, 47 per cent of commuters use public transit.

If current trends continue, commuting between homes in one part of the Greater Toronto bioregion and jobs in another will continue to increase. In 1986, close to 270,000 commuter trips were made each day into Metro Toronto from the four surrounding regions. By 2011, this could reach nearly 500,000. Unless there is dramatically less dependence on cars for making these trips, and more people are able to work close to home, the road system will be unable to cope with traffic needs.

Transit systems must have a population density of at least 4,000 people per square kilometre (10,360 people per square mile). This is achieved in the central city, but densities in suburban regions are much too low. The density is 6,000 people per square kilometre (15,540 people per square mile) in the City of Toronto, and 3,500 (9,065 people per square mile) across Metro. But in developed areas outside Metro, the population density is only 2,100 (5,439 people per square mile). Unless densities in outlying areas increase enough to support public transit, or industry and commerce decentralize to allow people to live near their workplaces, the Greater Toronto bioregion could become "California North" — a nightmare of too many cars going too slowly on too few roads.

GARBAGE

Canadians produce more garbage per capita than the people of any other nation.

Every year, homes, institutions, industries, and commercial establishments in the GTA produce 4.5 million tonnes (5 million tons) of garbage — enough to fill six Skydomes to the roof. With existing landfill sites nearly at capacity and due to close in 1993 or 1994, the question of where to put all this garbage has become one of the most emotional and pressing in the bioregion.

To date, Halton is the only region in the GTA to successfully site a new landfill. Because the Province believes that the remaining regions should deal with their waste within their own borders, it created an Interim Waste Authority in June 1991 to search for landfill sites for the regions of Peel and Durham, and for the combined York Region and Metro Toronto.

Increased efforts at waste reduction, recycling, and composting programs, as well as higher tipping fees, are reducing the total amounts of waste going to landfill sites in the area. Diversion from disposal sites ranges from about six per cent in York Region to 21 per cent in Peel — short of the 25-per-cent reduction target set by the Province for 1992.

Increased tipping fees are having another effect: thousands of tonnes of privately collected garbage are being trucked to cheaper disposal sites elsewhere in the province and in the United States, creating losses of waste-disposal revenue in the bioregion, adding unnecessary air pollution from extra truck traffic, and raising questions about the ethics of transporting one community's garbage to another.

DEMOGRAPHIC TRENDS

The traditional structure of families in the bioregion, like that of families everywhere, is changing: there are more single-parent families, smaller family sizes, and an

increasing number of dependent seniors. The age profile of the population is also shifting: there are a declining proportion of children and more older people. In 1991, 19 per cent of the GTA population was over 55, a figure that is expected to increase to 32 per cent by 2031.

The cultural diversity of the Greater Toronto bioregion is one of its most distinguishing characteristics: there are some 80 ethnic groups in the area. More than a third of all immigrants to Canada settle in the region, bringing with them special needs for language training and assistance in integrating into Canada's social and economic life.

These trends make increasing demands on communities and governments in the Greater Toronto bioregion. For example, a better supply of suitable housing is needed for different age groups and family types; there must be better transit networks; and social services and health care systems must be expanded.

SOCIAL NEEDS

The bioregion's demographic trends affect every part of it, from downtown Toronto to the older suburbs of Metro and the new suburbs of the outlying regions of York, Durham, Halton, and Peel. Similarly, social problems — poverty, homelessness, hunger, substance abuse, family violence, suicide — are no longer limited to the urban core, but strain the resources of municipal governments and non-profit groups throughout the region. The recession has exacerbated these problems, with increasing numbers of people competing for limited

social services, which are, in turn, being constrained by funding cutbacks.

Access to services is becoming an increasingly serious problem, for a variety of reasons. People from ethnic groups are often limited by cultural and language barriers. In the suburbs, lack of public transit means physical isolation, especially of women. Sometimes, appropriate services are simply not available, or have long waiting lists.

Thousands of people in the Greater Toronto bioregion are either homeless or living in overcrowded conditions. Causes include a shortage of suitable houses and apartments and an inability to pay high prices or rents. There are an estimated 20,000 homeless people in Metro Toronto alone; in 1986, nearly 28,000 families,

seniors, and single people were on the provincial waiting list for geared-to-income non-profit housing.

A wide variety of housing types is available in the Greater Toronto bioregion with Metro offering the broadest range and about 76 per cent of all social housing in the GTA. The Region of York has the least diversity: 80 per cent of its housing comprises single-family detached houses.

ECONOMY

The Greater Toronto region has traditionally been described as Canada's "economic engine", generating nearly one-fifth of the nation's income, with per capita incomes that are approximately 25 per cent higher than the national average.

In the past 15 years, the Greater Toronto region has been Canada's pre-eminent job-producing area. According

Thousands of people in the Greater Toronto bioregion are either homeless or living in overcrowded conditions.

to a paper prepared for the Commission by University of Toronto economic geographer Meric Gertler (1990), titled *Toronto: The State of the Regional Economy*, total employment in the Toronto Census Metropolitan Area (CMA) grew by an impressive 43 per cent between 1976 and 1990. Even higher growth rates — exceeding 70 per cent — occurred in community, business, and personal services, and in finance, insurance, and real estate. Although manufacturing remained a significant part of the economy, employment growth was slower there than in the service sector, reflecting a relative decline in the importance of manufacturing employment to the regional economy.

But there are signs of economic distress in the bioregion. The current recession has hit hard here, as in the rest of the country. There have been substantial declines in output and employment, and many observers suggest that the current downturn will be deeper and longer-lasting than first predicted. That makes it difficult to predict the future of the regional economy: its effects are mingled with other changes, more structural and fundamental, including the relative decline in manufacturing, the Free Trade Agreement with the United States (and the possibility that there will be a North American Free Trade Agreement, which will include Mexico), and imposition of the Goods and Services Tax.

One of the most notable trends of the past two decades is the decentralization of manufacturing activity from the City of Toronto — first to Metro's outer fringes and more recently to outlying regions in York, Durham, and Peel. However, it is impossible to predict whether this trend will continue, or whether industries will move out of the bioregion to other parts of Ontario, or go south to the United States or Mexico.

At the same time as manufacturing has declined, office-based employment, particularly in financial services, has grown in the City of Toronto and other urban centres; but there are different opinions about the extent to which this growth will resume after the recession. Some economists see the boom in financial services as a one-time event, made possible by financial deregulation, while others feel that the sector has considerable potential for continued growth, because: ongoing innovations in financial services products are meeting the needs of more sophisticated investors and borrowers; as the baby boom generation ages, there will be more demand for a variety of new savings vehicles; and many financial services are not easily automated and offer continued employment growth.

Another significant factor is the high quality of life the Greater Toronto bioregion can still offer, which attracts people in the financial services sector. This is in sharp contrast to New York City — Toronto's major competitor in the field — which is reaching limits to financial service growth, because of a combination of impending labour shortages, high house prices, decaying infrastructure, a deteriorating local education system, and an increasingly strained quality of life. Those responsible for the economy of the Greater Toronto bioregion would be well advised to consider New York's situation, which offers important lessons about the social, environmental, and cultural milieu necessary for sustained prosperity.

While some economists are optimistic about future increases in the office-based economy in the Greater Toronto bioregion, its role in stimulating the entire economy may be more limited than the one played by manufacturing-sector growth after the last