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ater has become a natural resource of vital importance, and, in the twenty-first century, it will be a precious commodity comprising an important part of the wealth and strategic power of the countries that possess it.

Fresh water makes up 2.5 percent of all the water on the Earth’s surface. Almost 70 percent of it is to be found in Arctic and Antarctic glaciers and deep, inaccessible underground water sources, making less than one percent of the world’s fresh water available for human use in rivers, lakes and underground sources that can be tapped. This water is only replenished through rain and snowstorms, making it a limited renewable resource.¹

Water distribution is quite unequal worldwide, and consumption has grown as a result of increased population, eco-

Bottled water is highly concentrated in a few firms: two European companies, Danone (France) and Nestle (Switzerland), control the entire world market.
Quebec has adopted a series of laws, regulations and policies to ensure the protection and management of water. Economic development and urbanization, which have boosted pressure on this resource. For that reason, access to water is today one of the world’s great challenges.

Sixty percent of the planet’s water is concentrated in nine countries: Brazil, Russia, China, Canada, Indonesia, the United States, India, Colombia and the Democratic Republic of the Congo (formerly Zaire). However, neither large investments nor water-related technology come mainly from these countries.

Quebec’s renewable fresh water make up one-third of Canada’s water resources and about three percent of the world’s. Other countries with large resources are Brazil, with 18 percent, China with 9 percent, and the United States, with 8 percent. The disparity between water distribution in the world and its rational use is important, since all human activities require it. For this reason, in recent years, concern about preserving it has grown, as has the interest of large companies in managing and distributing it.

Today, nine companies are internationally active in the world water market, particularly in infrastructure, sanitation and distribution. Among them are three French groups (Lyonnaise des Eaux, Vivendi and SAUR/Bouygues); a Spanish company (Aguas de Barcelona), and five firms from the United Kingdom (Northumbrian, North-West, Severn-Trent, Thames and Welsh Water). None of these large groups are from Japan, the United States or Germany. As a result of mergers of some of these companies, the world market has, de facto, been divided into two large groups, with a third player made up of smaller groups:

a) The Suez Lyonnaise/Aguas de Barcelona group, which has many subsidiaries in France and other countries: Essex and Suffolk (England), Infilco and Lysa (France), and Northumbrian Water, Sauge and United Water (United States), among others.

b) The Vivendi/Thames group made up of SAUR, Severn-Trent and North-West Water, also important in France.

Bottled water is also highly concentrated in a few firms: two European companies, Danone (France) and Nestle (Switzerland), control the entire world market.

Private companies have gradually been playing an increasingly important role in the sector, specifically from the 1980s on, when state companies began to be privatized. A few private companies took advantage of this and from then on have dominated the market, like the French Vivendi-Général des Eaux and Suez Lyonnaise des Eaux, which is the world’s most important, supplying more than 110 million people worldwide, with investments in the Americas, Asia, Australia and Europe.

These two companies have wide experience in supply, treatment and elimination of residual waters, as well as other services linked to the sector. They have a 40 percent world market share in 130 countries. These two companies’ increasingly important participation takes place in the context of the deregulation of trade, not only with the support of large international institutions, but also with that of national governments.

Until the mid-nineteenth century, potable water equipment in Quebec was almost exclusively the property of private individuals or companies. However, the problems of lack of water, epidemics and fires led municipalities to take charge of water management. Currently, water services are in the hands of municipalities, which own almost all the infrastructure for distributing drinking water and dealing with waste water.

The municipalities use private companies to help with carrying out different services, like technical studies, new projects and some public offerings, among others. For about 10 years now, the private sector has participated in the production of equipment, such as in the case of some new water treatment stations, licensed through renewable professional services contracts. The large consortia like Suez and Vivendi have very broad participation in all these activities.

Despite the fact that Quebec has adopted a policy to protect water management, the participation of the large consortia is important. For that reason, the provincial government has made sure that the municipalities guarantee access of quality drinking water to the population. It has done this by participating in financing the development of infrastructure so that expenditures for supplying potable water, whether commercial, industrial or residential,
and its administration, are taken on partially by the municipality. This water distribution policy is shown by the fact that only a few water meters have been installed, which means that consumption is unimpeded, in addition to being a service for which no additional charge is made.5 The government charges taxpayers an annual tax, but it comes nowhere near the real cost of the water.

Quebec has adopted a series of laws, regulations and policies to ensure the protection and management of water, which are part of the broader category of environmental protection, together with sectors like mining and forestry, dealt with mainly in the Law on the Quality of the Environment and the Law on Water Management. However, bottled water does not come under the same heading.

In November 2002, a new law regulating water was passed, as part of the National Water Policy. It includes matters such as the control and purification of water, specifically for the agricultural, industrial and municipal sectors; more complete access to information about water and aquatic ecosystems; their protection and restoration, the representation of Quebec’s interests in inter-regional and international bodies, particularly with regard to the Great Lakes and the Saint Lawrence River; municipal infrastructure and public access to eco-tourism involving water. One important aspect detailed in the document is the Quebec government’s refusal to privatize water.6

However, water is a complex matter administered under two jurisdictions, both federal and provincial, and sometimes the two policies do not jibe. At the same time, the fact that some bodies of water, such as the Great Lakes and the Saint Lawrence River, are on the border must be taken into account, and this has an impact not only locally and federally, but also on international policy. Although the aforementioned document does not completely clarify many points, there are some important inter-governmental and international factors regarding water:

- the ownership of the water, particularly with regard to maritime matters;
- the administration of the resources of the Great Lakes and the Saint Lawrence River;
- the non-applicability of the North American Free Trade Agreement (NAFTA) to water in its natural state;
- the jurisdiction of the federal government for establishing norms about the use of water; and
- the bottling of underground water.

I think the last point is of great importance since Quebec water consumption, sales and even exports are increasing.

BOTTLED WATER IN QUEBEC

Quebec has three percent of the world’s fresh water, which puts it in a privileged position, since this resource is abundant, and is maintained and renewed because of a series of conservation measures the government has put into practice. Above all, it has paid special attention to maintaining it as a state resource. Quebec has a total surface area of 1,667,000 square kilometers, or more than 16 percent of Canada’s entire territory. Approximately 10 percent of that area is covered with fresh water.

Although difficult to estimate, the total volume of underground water is about 2000 cubic kilometers, 10 percent of which is to be found under inhabited areas. Approximately 236 million cubic meters annually, or 54 percent of all the underground water supply utilized every year, is used for human consumption (potable, bottled and mineral water). Thirty-nine percent (or 167 million cubic meters a year) is used for the production of food (drinking water for cattle, in irrigation and in the treatment and preparation of legumes). And, seven percent, or about 28.5 million cubic meters per year, goes to different industrial uses, among them geothermic processes. However, 45 percent of drinking water comes from the Saint Lawrence River; 35 percent from other rivers and lakes; and 20 percent from underground deposits.

Private sector participation in different activities linked to water has become important, particularly in bottled water, a sector in which the large European companies have participated freely and increased their sales in recent years in conjunction with the opening up of markets and the availability of the water itself. Because it is a natural resource indispensable for life, water is also a very attractive commodity for the companies that market
The bottled water industry has high value added. In recent years, its production increased 13.4 percent, reaching a volume of 370.7 million liters. Quebec has a small number of large companies that dominate 80 percent of production, whose main source is underground deposits. This kind of water is of very good quality and apparently there are no limits on its being marketed internationally since current legislation is not clear about whether there are quotas for exporting bottled water or not. According to Quebec civil law, if the owner of a piece of land has access to a stream, the water belongs to him or her and, in principle, no limitations are placed on its use. This partially explains the recent rise of water bottling companies.

While exporting water in barrels or water tankers is prohibited, the law does not make specific provisions about exporting bottled water, whose dynamic performance, particularly in the U.S. market, is very attractive. The bottled water industry is of three kinds: spring water (93 percent of production); mineral water (3 percent); and treated water (4 percent). The exploitation of underground water supplies by companies operating in the sector represents less than one percent, which is less than the consumption of about 900 households.

Quebec’s water industry represents approximately one-third of Canada’s, and includes 20 companies that employ almost 800 people, with total sales of U.S.$120 million in 1994. These companies are clustered mostly around Montreal, where the water is of very good quality (Laval, Lauredites, Montérégie and Lanaudière), although some plants are in other parts of the province.

The bottled water industry is very concentrated: only four large companies employ two-thirds of the workforce. The other bottlers are smaller. The industry is controlled by a few players with important links to large European consortia.

Of the four large companies, two are European owned: Eau de Source Labrador, which belongs to Danone, and the Perrier Group of Canada, owned by Nestlé. The foreign firms have a dual interest here: on the one hand, access to an insufficiently regulated resource, and on the other, an interest in penetrating the U.S. market. For this reason taking over small companies and the Quebec market is of vital strategic importance to the large consortia.

Bottled water consumption has increased rapidly worldwide in the last few years, as have exports. European consumption is an average of 100 liters per person per year, while in the United States, it is 43 liters and in Canada, only 20 liters.

In Quebec, the industry has performed dynamically in recent years: sales volumes, particularly abroad, have increased tenfold, going from 10 million liters in 1990 to 101.7 million liters by 1999. Exports also increased greatly between 1992 and 1996, coinciding with the signing of NAFTA. Exports rose even more in 1997, going up by 103.2 percent compared to the previous year. Intra-provincial trade has also been on the increase, although to a lesser extent. By contrast, the consumption of bottled water in Quebec has not increased significantly, a fact that can be explained by the good quality of running water in the province and also the product’s high cost.

Exports of bottled water from Quebec, non-existent 10 years ago, have recently grown a great deal, constituting approximately 80 percent of all Canadian exports of this product. In general, Canada’s exports are strongly concentrated in the United States, and water is no exception, since 98 percent of international trade in water goes there, whereas Japan receives only one percent.

Three different types of bottlers exist: small ones, who bottle less than a million liters; medium-sized ones that produce between one and 10 million liters; and the large ones, with a more than 10-million-liter output. Ninety-three percent of what the small bottlers produce is treated water, with 75 percent sold directly to consumers, delivered to homes and companies. By contrast, 99 percent of what the large companies bottle is underground water and 70 percent of their production is sold at convenience stores and supermarkets, stalls, restaurants, etc. The main companies are:

- Breuvage Nora, a Quebec company that produces the Naya brand, distributed in more than 30 countries, but mainly the United States and...
Quebec has been correct maintaining the principle of not privatizing, ensuring that access to water continues to be a social right.

Japan. The Danone Group bought the assets of Naya, Inc. in 2000, including the Mirabel bottling plant founded in 1986 in northern Montreal.\(^1\)

- *Eau de Source Labrador*, majority owned by the European giant Danone, has two bottling plants in Quebec and one in Ontario;
- *Les Sources Coulombe*, a Quebec company that bottles the Boischatel and Cristalline brands, distributed in most of Quebec;
- The Perrier Group of Canada, property of Nestle.

These international consortia’s participation in a sector so highly protected by the provincial government brings out a series of questions with regard to extraction, handling and export, since current legislation is not very specific on these issues. Although export in barrels is forbidden, the export of bottled water is not, and until now, no reduction has been contemplated in quotas, which in the short run could create problems vis-à-vis NAFTA stipulations.

**Final Comments**

The international water market is dominated by a few corporations which, in addition to possessing a tradition and culture in the matter, have the know-how and the financial resources they need. An important part of these companies’ commercial potential internationally resides in their financing capabilities, one of the main difficulties for smaller companies.

Quebec’s bottled water industry is one of the fastest growing and least regulated, although this is not only the case in this province, but in many other countries. It has a 20 percent growth rate and, according to 2002 figures, world sales reached almost 90 billion liters (most in non-recyclable plastic containers), with a U.S.$22 billion profit, a figure not to be sniffed at.

In Quebec, this industry has experienced important development in recent years, partly because of the activities of large foreign consortia. These corporations have performed quite successfully in exports, which have increased exponentially toward the U.S. market.

Without a doubt, Quebec has been correct in maintaining the principle of not privatizing, ensuring that access to water continues to be a social right of the population. However, the large consortia have been gaining ground in specific sectors such as bottled water because of the trade opening that began in the mid-1980s, facilitating investments and mergers with local companies. Undoubtedly, these companies are waiting for new opportunities to administer one of the riches of the twenty-first century. \(\text{VVM}\)

**Notes**


2 Renewable reserves of the world’s fresh water are calculated based on the average annual loss of water. This does not include underground supplies, but involves only water in rivers fed by streams, in the subsoil and lakes. Quebec’s renewable fresh water comes to about 990 cubic kilometers per year, which represents three percent of the 38,000 cubic meters per year of the world’s rivers. The Saint Lawrence River represents about 40 percent (410 cubic kilometers per year) of Canada’s total volume, and makes for a yearly mean loss of about 13,000 cubic meters/second. The annual mean loss of the world’s largest river, the Amazon, is about 225,000 cubic meters/second.


5 These meters have only been installed in a few plants.

6 Privatization of water was widely discussed in Quebec through the Office of Public Hearings on the Environment (BAPE) and, after a series of public consultations, the conclusion was to not privatize. Bureau d’audiences publiques sur l’environnement (BAPE), *La consultation publique sur la gestion de l’eau au Québec* (Quebec: BAPE, 2001).


9 Nestle has cornered about 30 percent of the world’s bottled water market. Danone controls 15 percent, and Pepsi and Coca-Cola weigh in next. The bottled water industry is currently worth U.S.$22 billion and some experts put its potential growth at 30 percent annually. http://www.citizen.org/cmep/Water/us/articles.cfm?id=8972

10 Government of Quebec, op. cit., p. 41.

11 Ministère de Agriculture, op. cit.


14 With this acquisition, the Danone Group doubled its productive capacity in Canada and increased its reserves for developing a strategy in the U.S. Northwest. The Danone Group is strengthening its position as a leader with the Labrador, Cristal Springs, Volvic, Evian and Naya brands.