

Water, water everywhere

By Doug Skeates

'The rime of the ancient mariner' was written in 1798 by Samuel Taylor Coleridge. The completion of the opening sentence appears even more pertinent in today's world, 'nor any drop to drink', in many parts of the world. It is particularly significant when applied to the role of water in providing the food needed by the world's seven billion people. Luckily Canadians are among those with adequate supplies of potable water (at least so far).

On a global basis, the surface of the planet is roughly 70% salt water, about 97% of the world's total volume. The remaining 3%, fresh water, is largely tied up in ice masses at the polar regions and glaciers. Lakes, rivers, streams and wetlands are the primary sources serving mankind, less than 0.26 percent being available for human consumption ('Water?', Marq de Villiers 2000). The rapid melting of ice due to global warming is of considerable concern since many of the world's major rivers have their roots in glacier melt-water.

Water is essential for survival of the human race. The loss of glaciers, the major source of fresh water in many parts of the world must be made up somehow. The only way is to increase the proportion that is conserved in aquifers for regulated release to augment surface bodies of water, a job forests are well suited to perform.

Canada has shown that improving forest cover can impact the productivity of land hence regional prosperity. The rehabilitation of desert lands of the Oak Ridges Moraine has changed the ecology of southern Ontario, converting waste land to providing effective contribution to the wealth of the province in terms of agricultural potential, reduced costly flooding and year round stability of rivers supporting Lake Ontario.

An interesting experience of many years ago was my search for fish worms. Visiting a farm friend permission was asked for a place to dig for the wanted fish bait. The friend noted there was no need to dig. Instead he took a fork and lifted straw in his garden to reveal a moist surface with worms on the surface which could be easily collected. The organic mulch had conserved the garden's ground water content by reducing evaporation.

A visit to the Menominee forest in northern Wisconsin illustrated how forest lands could serve both mankind's financial needs and the region's ecology. The tribe had been granted control over the productivity of ten townships by Congress 200 years ago. Harvesting by the tribe had been conducted on a sustainable basis, removing volumes of only the increment of tree growth while maintaining a standing forest resulting in over twice the yield of the original trees. The existing stands exceed those originally granted. Both the harvest and the standing trees served mankind. Many communities around the world are discovering the value of sustainable forest cover.

Similar examples point to the value of forest cover, economic and socially, of working with nature to maintain regional ecological productivity through community resource development. The role of forests to solve many of the problems needs to be greatly expanded for the survival of the human species but especially in the western hemisphere. Experience in Africa, Asia and Europe are well worth reviewing and adapting on this side of the water. Agroforestry is one means of supporting productivity as exemplified by the Green Wall of China with shelterbelts reducing the dust storms of the Gobi Desert and protecting farm fields. The Great Green Wall of Africa is gradually rehabilitating soil moisture levels south of the Sahara Desert. Increased agricultural production is starting to impact the levels of poverty across eleven countries.

From a Canadian perspective the value of forests, whether in cities, the agricultural belt or the Boreal Forests of the north, needs to be greatly enhanced in public perspective and especially in the decision-making of those in the economic field with their control over government policies.

The role of land for maintaining water, hence agricultural productivity, is of greater importance than costly oil pipelines and as well

of the cost of the inevitable damage of spills endangering both the ecology and the economy.

There's got to be better ways of expanding the nation's prosperity.