

Armenia is one of the oldest countries—the first (in 301 A.D.) to declare Christianity as its religion. Today, over eight million Armenians live outside the country with about three million within. With Georgia to the north, Turkey to the west, Iran to the south and Azerbaijan to the east, this one-time Soviet republic is enjoying a rare period in its history as an independent country. It's a history filled with conquerors: Soviets, Turks, Arabs, Ottomans, Persians, Romans, Byzantines and others. Throughout it all, Armenia has retained its culture, its language and its religion—a culture which is a mix of the Mid-East, Europe and the Soviet Union. Originally, Armenia extended from the Caspian to the Black Sea. Today, it is a landlocked country of three million ha with few resources. With no oil or access to the ocean and a low forest cover, its population has had to endure difficult times since the withdrawal of the Soviet Union in 1993.

The 1990s were a period of misery. While the collapse of the Soviet Union proved a boon for easier travel and expressing political opinions, it was disastrous for public pensions and employment. In 1988, 25 000 Armenians perished in a devastating earthquake. The country's nuclear reactor was taken off line as concerns over its safety arose. A little-reported war between Armenia and neighbouring Azerbaijan from 1988–1994 resulted in 20 000 deaths and some 1 000 000 people displaced.

These factors contributed to a decline in the country's infrastructure. For five years, from 1990–1995, the entire country was without electricity.

As a result of the chaos, Armenia's forests suffered greatly. Authorities looked the other way as thousands poured into the state-owned forests to cut trees for cooking and heating. Devastating consequences followed: mudslides, wildlife habitat loss and water problems. Today, Armenia has a forest cover of some 8%–12% with continuous pressure from illegal logging, mineral exploration, agriculture, highway expansion and short-term "ecotourism" schemes.

A signatory to the *Kyoto Protocol*, the *International Convention on Biological Diversity* and other international agreements, Armenia has realized that its future is very much tied to the health of its forests.

While the forest cover is low, most forests are found in a few, large state-owned blocks. The diversity of wildlife is relatively high, given the amount of



(L-R) Gagik Amiryany, Gugark Forestry Agency; Vadim Uzunyan, Armenia Tree Project; Adrina Bardekjian Ambrosii and Michael Rosen, Tree Canada; Alla Berbeyan, Young Armenian Scholars at a planting site near Margahovit.

forest cover, attributed to the large amount of forest interior, the range in elevations and the southern aspect of the country.

Dilijan National Forest (28 000 ha) consists of dense, all-aged and well-stocked forests of Oriental beech (*Fagus orientalis*) and English yew (*Taxus baccata*) with little regeneration. Some stands exceed 60 m<sup>2</sup>/ha in basal area with yew diameters over 70 cm DBH. Part of the area is a recognized biosphere reserve. What logging exists is selective and low. The Khosrov Forest Reserve, established 17 centuries ago by the Armenian King Khosrov Katak as a hunting preserve is a 24 000-ha dry-mountain forest with over 1800 species of plants, 156 of which are considered species-at-risk. Pure mountain streams mix with open forests, scrub and rock cliffs. Xerotypic species of oak such as *Quercus iberica* and *Quercus castaneifolia* mix with other species to provide the mountainous terrain with many wildlife species. Khosrov is home to over 40 species of mammals, 18 of which are in the Armenian "Red Book" (the list of endangered species). Under pressure from cattle grazing, poaching and a leasing program to foreign hunting interests, the Reserve is trying to thrive in the post-Soviet Armenian economy.

Areas without forests are striking with numerous projects to restore forest cover. The teaching of silviculture, a holdover from the Soviet era is still strong. Labour to plant and tend plantations is readily available. Seed source mapping and planting densities (some

of which exceed 10 000/ha) are well articulated although concepts such as basal area control (all age management) are not. The overwhelming problem on many sites is drought and soil compaction. Mixtures of native and non-native trees used for reforestation include Russian olive (*Elaeagnus angustifolia*), Scots pine (*Pinus sylvestris*) and hybrid poplar (*Populus* spp).

Urban forests are in surprisingly good condition despite a lack of a formal program in place. This is partially due to warm growing conditions and the lack of de-icing salts. The practice of conveying gas and water services above ground, coupled with the absence of other underground utilities, leaves urban root systems free from disturbance. Popular species include *Platanus × acerifolia*, *Tilia cordata* and *Acer negundo*.

The task before Tree Canada will be to develop a program that will combine aspects of urban forestry and rural reforestation, with links to Canadian universities. As Tree Canada Chair Dorothy Dobbie stated, "Canada has an international reputation as a country with forests, and as a country that cares... Together with our partners, Tree Canada will help bring Canadian compassion and expertise to Armenia's urban and rural forests." For more information see [www.adrina.ca/project\\_buildinginternationalbridges](http://www.adrina.ca/project_buildinginternationalbridges).

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