



March 27, 2004

## Armenia's Environmental Genocide: The Tragedy of Deforestation By Christian Garbis Adanalian

YEREVAN (Armenian Weekly)—In Armenia, an epidemic has broken out that is detrimental to the country's survival and its ability to support a constructive, stable society. The issue affects every individual within the country, which unresolved would turn the landscape into a scorched, uninhabitable wasteland where nothing can be done to reverse the damage.

This situation describes the effects of the rampant deforestation within Armenia.

Each year, thousands of trees are cut down from Armenia's rapidly fading forests. Seventy percent of these trees are sold as firewood within Armenia, and 30 percent is exported for profit.

Several steps are being taken by a variety of organizations, including the Armenian Forests NGO and the Armenia Tree Project, to prevent deforestation from becoming a totality.

The Armenian Forests NGO was founded in 2002 by its president, Jeffrey Tufenkian, who is a native of the United States. The organization applied for non-governmental status and became a fully functional, established NGO in February 2003.

The Armenia Tree Project has been working in Armenia since 1994, primarily focusing on small, community-based programs within Yerevan and its outlying areas, but is now shifting its direction towards more expansive undertakings. The organization has offices both in Yerevan and Watertown, MA.

The main goals of the two organizations are not only to encourage the prevention of deforestation nationwide, but also to restore areas that have been wholly depleted of any greenery.

"It is a very severe situation for the environment," Mr. Tufenkian said. "The speed in which the destruction is happening is astounding. The amount that we and a few other organizations are planting just pales in comparison to how much is actually being cut."

Efforts in forest restoration began late in the 1990s, after thousands of trees were removed during the energy crisis occurring between 1992-1995. During that period, millions of people throughout Armenia could no longer depend on oil or electricity to heat their homes, thereby resorting to cutting down trees for fuel. This trend has not discontinued.

Considerable work has already been accomplished in Ordzun, located on a cliff overlooking Alaverdi in the Lori region. It is the second largest village in Armenia and one of the most environmentally damaged, hence the urgency to restore the greenery there.

Thus far, Armenian Forests' efforts have proven successful. In Ordzun alone, 100 hectares of land have been planted with tree saplings (also called seedlings), 50 hectares of which were obtained specifically for reforestation purposes by permission from the Armenian government, and 50 acres were secured as community land for planting.

During the spring of 2002, 125,000 trees were planted on the land, with a survival rate of 85-90 percent. Those that dried out were replaced during the fall.

## Armenia Tree Project



Another severe problem is topsoil erosion as a result of the removal of trees. In the northern city of Vanadzor, the third largest in Armenia, trees are being removed at an alarming rate, resulting in the formation of gullies. As a result, topsoil washes down from the hillsides to cover the roads after rainstorms. Now, a danger exists for destructive landslides to occur.

"What you're going to see is similar to what's happened to Mesopotamia," claims Armenia Tree Project Executive Director Jeff Masarjian. "Once you lose the forests, you lose the topsoil through erosion. Once that topsoil is gone, you lose the ability to sustain the population through agriculture."

In an attempt to begin reversing the forest damage there, the Armenia Tree Project has partnered with a local environmental NGO called Tsiatsan to reforest 2,000 hectares on the hillsides. The goal is to have 1 million seedlings planted each year after 2006. So far 40 people have been employed.

The Armenia Tree Project is significantly transforming its undertakings to focus on rehabilitating entire forests, although it is continuing to foster community tree planting programs. It is now working on a seedling growth project in the village of Aygut, located in the Gegharkunik region.

Each of 17 families is encouraged to plant 1,000-3,000 seedlings during an 18-month period. Families are paid 50 cents for each seedling that survives and is transplanted to the forest. This annual income of about \$500, although insignificant, is still three times greater than an ordinary annual salary for a family, based on a survey that the organization conducted.

Both the Armenian Forests NGO and the Armenia Tree Project have undertaken projects to restore Tziternakabert Park in Yerevan, using a system known as coppicing. This method entails pruning shoots from the bottoms of stumps, allowing them to strengthen and properly grow as trees rather than bushes. The result of these efforts is a 100 percent survival rate.

"It is a fairly quick and easy way to jump start the growth of a tree, since results can be seen in only one or two years," Mr. Tufenkian explained. "And unlike newly planted seedlings that take 6-7 years to grow into maturity, coppiced trees don't need excess watering."

Another goal is to increase awareness of forest preservation through print and televised mediums. An advertising campaign has already been started using billboards throughout the city to promote public service messages about protecting Armenia's natural environment.

But the Armenia Tree Project intends to educate by focusing on young students. It is working on developing a curriculum to be implemented in schools throughout the country.

"The trees are growing with the kids," Mr. Masarjian explains. "And by the time they become adults, and come into positions of power and influence in 20 years, they will be less likely to cut down trees that we're planting today."

The concept of deforestation is simply not heeded by either citizens or the government, as those who need to fuel their homes during the winter will purchase wood or, in the regions, cut down trees of their own accord. Further worsening the matter, business interests also take priority over Armenia's natural environment.

Thousands of trees are cut down for export purposes, which is not environmentally feasible given the existing lack of natural resources within the country. Yet one business conglomerate, Sil Group, is now

## Armenia Tree Project



cutting down trees for profit. Its Sil Wood division has opened at least two stores in Yerevan selling solid wood furniture, most likely made from Armenian lumber.

Both organizations and some analysts speculate that several affluent businessmen, including military and governmental officials, are exporting untreated, raw wood to countries such as Iran, Germany, Italy, Russia, the United Arab Emirates, and Spain. However, their identities have yet to be made public.

"The cutting down of a tree for people to keep warm is one thing," Mr. Tufenkian explained. "But the cutting of wood for export is completely inexcusable."

There is no consideration for, at the very least, processing wood in Armenia, thereby employing jobless citizens and, in some way, justifying the export of timber.

According to the Armenian Forests NGO, nearly 7,000 hectares of forests in Armenia are being cut each year, 4,000 of which are used for fuel. Each hectare contains an average of 1,000 trees.

Businesses or individuals responsible for forest destruction have carte blanche to continue, as the Armenian government fails to enforce environmental laws. No mechanism is in place to set guidelines for proper, lawful tree export, nor are current laws preventing the removal of healthy trees heeded, as virtually anyone can move into a forest and begin cutting.

"There's no regulation on how to manage the welfare of forests," Mr. Masarjian explains. "They're taking the best trees, so that the ones that are left are crooked or diseased. So the forests in Armenia have lost their capability for regeneration."

And the costs of production are cheap. Less than \$12 is spent to load and transport 10 cubic meters of cut wood, including costs for salaries and paying bribes to guards and policemen en route to market. In 2002, the price for 10 cubic meters at market was between \$16-19. Since then, the price has more than doubled to approximately \$44.

"Corruption is allowing a few people to make a lot of money by destroying the forests," said Mr. Tufenkian.

No distinction is being made in sanitary cutting, as both healthy and sick trees are chopped down for firewood.

"Sanitary cutting is legal, since dead or sick trees are not good for production," explains Armenian Forests NGO Program Director Nazeli Vardanyan. "Legally, 70,000 cubic meters of trees are allowed to be cut down each year for sanitary purposes. Yet the actual number of cut trees is 1 million cubic meters, mostly consisting of healthy trees."

People that cannot heat their homes using other fuel sources such as natural gas—due to lack of availability or finances—burn wood. But the Armenian Forests NGO is trying to change that by providing incentives to villagers for switching to natural gas, where available. In one town, residents could not afford to switch over, as the cost of hooking up to the main gas line is 40,000 dram, or about \$70.

"Villagers don't want to cut trees, but if their choice is cut down a tree or freeze to death, they're going to cut down a tree," Mr. Tufenkian states. "However, in one village trees were prevented from being cut down when the administrative head gave villagers an incentive. He agreed to pay half the gas line installation costs for each home."

## Armenia Tree Project



The Armenian Forests NGO is also setting up programs to encourage those with the resources to start businesses, enabling them to help pay for the price of gas.

To further strengthen the environmental protection movement, and to spread awareness particularly within the government, a coalition has been formed called Protect Our Forests, which was founded by Armenian Forests NGO, Armenia Tree Project, UNDP, OSCE, and the Cafesjian Foundation, among others.

By June 2002, 40 organizations joined the coalition, including wood cutting businesses and governmental officials, in an attempt to raise awareness of environmental issues. The coalition was able to influence a ban in December 2002 for cutting down New Years' holiday pine trees, after publicizing through the media, including television. However, whether the ban has been strictly enforced is unknown.

There was some effort to reforest Yerevan, whose trees were totally destroyed during Armenia's energy crisis. But the arid climate prevents any trees from surviving there after being planted for lack of proper irrigation. Furthermore, because of the nonexistence of trees, erosion occurs rapidly and new saplings are washed out before having a chance to grow.

The forest, which was located high on the hills of the Nork and Masis districts, provided a natural filtration system, shielding the city's center from fine dust and dirt. During the summer months, Central Yerevan is now a hazy dustbowl.

"Now there is discussion of developing the land where the Yerevan forest once was," Ms. Vardanyan admits.

Another problem is the decapitation of trees lining the streets of Central Yerevan, such as on Abovyan Street, which once contained tall, deciduous timber providing a natural shade along the popular thoroughfare.

According to both Mr. Tufenkian and Mr. Masarjian, this cutting is done for pruning reasons, using a radical practice known as pollarding, which helps to prevent disease and restore trees. Yet this explanation is sketchy, as seemingly healthy trees have been cut so severely that their stumps in some instances have dried out. It is unknown whether the wood collected after pollarding is sold for profit.

Mr. Masarjian claims that the environmental integrity of Armenia is essential, and its greenery needs to be maintained and restored at all costs.

"According to the World Bank, 80 percent of Armenia is at risk of becoming a desert within 50 years," Mr. Masarjian explained. "If we don't start doing something now, changes will occur that may be irreversible."

"I would like to see people on a whole to look forward, but the current generation cannot look past the coming year," Mr. Tufenkian said. "If this trend continues, by the time the new generation turns 20-years old, they will see an Armenia with little to no forests."