

TREES AND TECHNOLOGY



PRESENTED BY:

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ALLIANCE FOR COMMUNITY TREES DAY

Armenia in Early 1990s



Armenia, a former Soviet republic, faced unprecedented challenges:

- **Soviet Union Collapse:** Loss of economic and structural support left Armenia vulnerable.
- **Earthquake, War & Blockade:** A devastating earthquake, regional conflicts, and a blockade cut off access to energy resources.
- **No heat or electricity:** People resorted to cutting down trees in city parks to stay warm during harsh winters.



The Founding of ATP

In 1994, an Armenian American activist Carolyn Mugar from Boston founded the Armenia Tree Project (ATP), seeing tree planting as a symbol of hope.

- **Starting Small:** ATP began with 45,000 trees.
- **2025 Goal:** Now on track to plant 1 million trees by 2025.

Today, ATP focuses on restoring Armenia's forests, bringing renewal and resilience to the nation's green heritage.



COMMUNITY IMPACT

ATP's Community Tree Planting has become the flagship program in Armenia, known for revitalizing communities and landscapes.

Over 1,700 Sites: Parks, schoolyards, churchyards, and historic sites have been transformed, each project enhancing its surroundings and uplifting local areas.

ATP plants over 40 tree and shrub species in this program, promoting biodiversity and ecological health throughout the country.



Tatev Monastery

One of ATP's multiple success stories

ATP's impact is visible at the historic 11th-century Tatev Monastery.

- **Accessible by Cable Car:** Located on a gorge, now accessible via a tram station in Halidzor village.
- **Apple Trees at the Station:** Tourists wait in the shade of hundreds of apple trees planted by ATP.
- **Pear Orchard at Tatev:** Across the gorge, near the monastery, ATP has established a fruit orchard primarily of pear trees.

This greening effort has enriched both the visitor experience and the landscape.



Broader Impact

Community: ATP's support extends to every household in nearby villages, providing fruit and nut trees that produce food for personal use and for sale.

Education and Sustainability: Local school children also benefit from ATP's environmental education programs, fostering a lasting commitment to nature.



Building Armenia's Green Legacy

ATP is dedicated to revitalizing Armenia's landscape and empowering communities.

Key achievements include:

- 8.5 Million Trees Planted: Enhancing ecosystems and natural beauty.
- 1,500 Hectares of New Forests: Contributing to a greener Armenia.
- 1,700 Community Tree Planting (CTP) Sites: Greening parks, schools, and historic areas.
- 99,000 Students in Environmental Education: Inspiring future stewards of Armenia's natural heritage.

These milestones reflect ATP's ongoing mission to improve quality of life and protect the global environment.



Monitoring Success & Recognition

ATP ensures high survival rates through regular monitoring of each planting site, providing essential technical assistance to communities and individuals.

Research Recognition: Guy Hydrick, a GIS expert from Clark University, studied ATP's Community Tree Planting program and reported an impressive 96.3% survival rate from 1994 to 2019.

Benefits of Mature Trees: Hydrick noted that ATP's success stems from a deep understanding of Armenia's land, adaptability to climate challenges, and a commitment to innovative technologies.

These efforts enhance the long-term impact of ATP's work and its contributions to communities.



Innovative Technologies for Quality Enhancement

ATP has always been at the forefront of introducing new technologies in Armenia, continuously seeking methods to enhance the quality of its work and address critical challenges.

This allows to address water resources shortages and adopting to challenging climate and soil conditions to ensure higher survival and productivity rates.



Drip Irrigation

Pioneering Drip irrigation in Armenia

- **Direct Water Delivery:** Water is delivered straight to the roots, ensuring optimal moisture levels.
- **Minimized Waste:** Significantly reduces water waste.
- **Weed Control:** Avoids wide-area watering, limiting the growth of unwanted plants and weeds.

ATP leads the way in sustainable irrigation practices, enhancing agricultural productivity and supporting its reforestation efforts across Armenia.



Automated Rainwater Harvesting

- **Water Collection:** Effectively collects and stores rainwater for irrigation, reducing reliance on external sources.
- **Conservation:** Promotes water conservation and sustainable management practices.

Initially implemented in ATP's Karin nursery, this system is now a replicable model for ATP's beneficiary backyard nurseries, addressing persistent water challenges across the region.



Greenhouse Collection System



Greenhouse Rainwater Collection



Underground Collection Tank



5000 L Storage Tanks

Roof Collection System



Existing Collection System



Electrical Connection



Closed-Root System Planting

- **Minimized Disturbance:** Reduces root disturbance during transplanting, leading to lower transplant shock.
- **Enhanced Survival Rates:** Improves survival rates, particularly in challenging environments.
- **Flexible Planting:** Allows for flexible planting schedules with protected root systems, promoting healthier growth.

This method supports robust growth and resilience in trees and plants, contributing to ATP's overall reforestation success.



Dwarf Fruit Tree Propagation

- **Space Efficiency:** Dwarf trees occupy less area, allowing for more trees to be planted.
- **Easier Maintenance:** Their smaller size simplifies pruning, pest management, and harvesting, reducing costs.
- **Increased Yield:** Dwarf trees produce fruit sooner and in greater quantities, maximizing yield per square meter.

This method enhances fruit production while optimizing land use, contributing to sustainable agricultural practices.



Winter Grafting: Enhancing Tree Resilience

- Winter grafting is a valuable technique used by ATP to cultivate resilient, high-quality trees.
- Grafting during the dormant winter season supports optimal plant health.
- Grafts heal over winter, leading to vigorous growth in spring.

Winter grafting allows ATP to maximize planting efforts during warmer months. This technique reinforces ATP's commitment to sustainable greening, even in challenging climates.



Discover more about our mission
and projects at www.armeniatree.org

The Armenia Tree Project remains committed to planting trees and supporting communities, fostering hope for a greener and more resilient Armenia. Through innovative practices, ATP not only enhances its mission but also contributes to sustainable environmental efforts, setting new standards for reforestation and community greening.

Thank you

