Albania



Organization: Qendra Burimore e Mjedisit ne Shqiperi (Resource Environmental Centre Albania)
Location: Municipality of Shkoder, Vore, Lushnje, Berat and Maliq
Solution: Climate-smart agriculture techniques for olive crops and irrigation in Albania
Factsheet Period: First round of UNDP AFCIA funding (16 months); Second round of UNDP AFCIA funding (12 months)



An initiative supports olive farmers in Albania with climate-smart agriculture techniques @ RECA

74% of farmers in Albania are small family farmers, holding limited land (FAO, 2018). The agriculture sector has been hit with numerous crises, including rising costs of oil, raw materials and fertilizers, as well as emigration and climate change (IMF, 2022). Smallholder farmers also struggle with low productivity, underselling of produce, outdated farming methods and limited access to technology. This initiative aims to drive connectivity-fuelled transformation, integrating smallholders and introducing solar-powered irrigation, shredding technologies and agrivoltaic systems tailored to smallholder needs. Through financially inclusive models and gender-responsive community engagement, it strengthens farmers' productivity, reduces climate-related risks and promotes more sustainable and resilient agricultural practices. Ultimately, it aims to relieve pressures on farmers, fostering sustainability and resilience of agricultural practices to socio-economic and climate change.

Key achievements

- Created a connectivity-fuelled aggregation of 70 smallholder farmers with a legal and cost-sharing framework
- Implemented solar-based irrigation systems benefiting 30 farmers (46% women)
- Introduced a shredding technology (new to Albania) for olive pruning residues, enhancing soil-based carbon sequestration
- Surpassed the initial planting target by adding 4,500 olive trees, exceeding the goal by 500 and bringing the total number of trees supported by the technology to 5,500.
- Reduced farmers' working time by 30,800 hours across the 5,500 olive trees served through the introduction of the new technology
- Achieved a total of 25.8 hectares of farmland equipped with improved irrigation systems, improved and increased carbon density and biodiversity and climate resilience
- Converted 22 hectares of olive plantation land into ecological sustainable use
- Delivered two new technologies, biomass shredding and renewable water pumping, to 70 smallholder farmers, benefiting 230 community members
- Trained 162 high school students and 111 farmers on climate change, emerging low-carbon technologies and gender considerations in sustainability
- Established four farmer collectives led by women farmers



Social impact

- Promotes collaboration with a focus on community involvement and shared responsibility over productive assets
- Empower local communities by increasing resilience and productivity in agriculture

Adaptation benefits

- Enhanced carbon capture and soil health
- Improved water management with solar-based irrigation, increasing water access
- Boosted agricultural efficiency with advanced technologies and mechanization
- Strengthened smallholder farmers' resilience to climate impacts







Innovation

- Enhances sustainability through farmer connectivity and integration
- Improves soil carbon capture, reduces costs and introduces renewable technologies in the olive sector
- Addresses challenges like input costs, productivity and climate vulnerability
- Promotes economic empowerment and resilience among smallholder farmers

Replication potential

- Expanding a connectivity model to include new smallholders
- Distributing technology and knowledge to other regions in Albania, such as Obot and Marqinet, to benefit other farmer communities

Funding snapshot

- UNDP-AFCIA grant: US$159,497 (initial grant: $60,000; scaling grant $99,497)

Investability	
Revenue per year	US$22,500 from increased agricultural production and sales, as well as cost savings due to lower dependence on national energy grid. Achieved annual irrigation cost savings of approximately US$1,500 per farmer Saved costs on fertilizer and labor: US$300 per 100 trees.
Sustaining criteria	Technologies purchased using the UNDP-AFCIA grant have low maintenance costs, as they are more energy efficient and require less labour. The increased crop yields and market access ensure overall financial sustainability without further investment.
Financial innovation	Introducing investment and farmer cost-sharing for new technologies, fostering the development of productive assets and stimulating social and economic growth in rural areas. A collaborative approach mitigates the financial burden on individual farmers and ensures their engagement and commitment, leading to more sustainable and impactful outcomes.

ADAPTATION FUND Climate Innovation Accelerator

ADAPTATION FUND

To read their story, visit UNDP-AFCIA

To watch their video, click here

To contact the initiative, visit REC Albania