

ORCHARD AND VINEYARD ESTABLISHMENT

Alternative Development Programme, Afghanistan, 2016-2020



UNODC's Alternative Development Programme worked with communities in Afghanistan to encourage them to move away from illicit crop cultivation and move towards growing licit crops. Orchard and vineyard establishment was one such endeavour that resulted in communities adopting a licit and sustainable livelihood option. Under the programme, farmers were provided improved saplings, disease and pest management kits; and were trained on orchard plantation, administration, and marketing produce.

Traditionally pistachio grows in the wild in the forests of North Balkh, Farayab, Samangan; North East Baghlan and Takhar; and in the West Farah, Herat, and Badghis. UNODC introduced an improved pistachio variety called Peter and Kerman to South Kandahar, Helmand, and Uruzgan; and established 1,095 jeribs (219 hectares) of the crop. The farmers were also trained on setting up pistachio nurseries, and on budding and grafting pistachio plants.

Additionally, the programme introduced new technologies in orchards and vineyards. Grape trellising was used to reduce wastage and to increase production by 62%. The project also established 15 grape drying houses, called Modern Kishmish Khana (MKK), each of which can process about 9 Metric Tons (MTs) of grapes and convert them into raisins in 20 days. Farmers sell these raisins at 10-30% higher price, as compare to raisins from the Traditional Kishmish Khanas (KK), which can process only 5 MTs of grapes in 25 days.

Instead of flood irrigation, the programme promoted furrow irrigation and drip irrigation methods, which decreases the amount of fuel used (from 50 litres to 20 litres) for water pumps to irrigate one hectare. Furrow irrigation further reduces time to 6-7 hours, instead of the 20 hours it takes for flood irrigation.

500 citrus growing farmers were trained on Integrated Pest Management (IPM) and the IPM tools provided to them helped them bring down the prevalence of diseases in citrus orchards. Moreover, apple and almond nurseries established in Paktia and Farah provinces were linked to the Afghanistan National Nursery Growers Association (ANNGO) for quality inputs, certification of saplings, and market access.

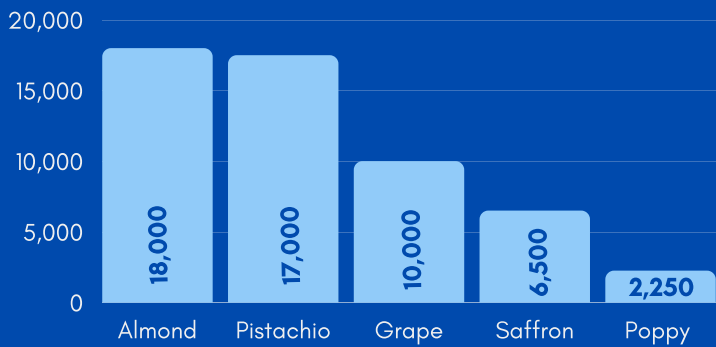
Training, inputs, and extension services on intercropping (with black cumin, alfa-alfa, vegetables) were also provided to farmers. Intercropping is particularly important for apple, apricot, almond, walnut, and pistachio farmers as planting other crops with short harvest cycles allow them to earn sufficient income until their orchards bear fruit, which can take up to 24-48 months. Women - who are mostly involved in watering, clearing weeds, and packaging produce - played a crucial role in maximising household income through intercropping in the orchards.

At the same time, 1047 farmers (155 women and 892 men) were supported in Kandahar and Herat to establish saffron fields and were trained on pre- and post-harvest techniques. Farmers from Barnabad Saffron Association in Herat were trained on producing ISO standard saffron. Their ISO certificate now allows them to import saffron to European markets.

Achievements

Data from an Implementing Partner in South Afghanistan September 2020

Revenue from Alternative Crops vs Poppy
Per Hectare (in USD)



5,081 jobs created from orchards and vineyards, and 1047 from saffron.

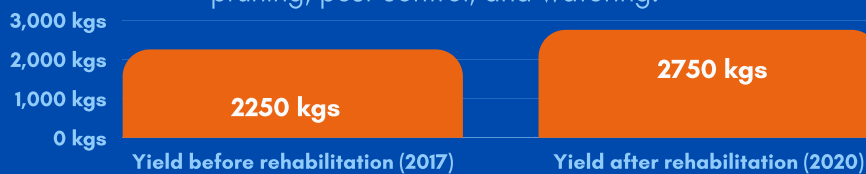
Net income of USD 1.2 million generated from vineyards and orchards intercropping and USD 0.88 million from saffron.

16 hectares of citrus (lemon and sweet orange) orchards were equipped with drip irrigation system powered by solar panels, which is expected to increase the yield of the orchards by 50% and decrease irrigation water loss by 70%.

127 fruits (apple, almond, pistachio) and non-fruit nurseries (Atriplex and halaxylon) established.

The project rehabilitated – through pruning, application of disease and pest control practices, and irrigation system – 190 vineyards and apple orchards, which resulted in 15% to 20% increase in per unit income of farmers

Total yield increase in apple orchards per jerib after rehabilitation with modern techniques for pruning, pest control, and watering.

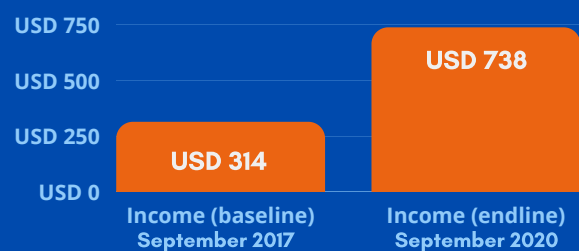


4451 orchards of apple, almond, apricot, pistachio, walnuts, and vineyards established on 891 hectares (1 hectare equals 5 Jeribs or 10,000 sqm).

Total yield per farmer per hectare from grapes



Farmer income per hectare from grapes



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