

## CASE STUDY ON INCENTIVE MEASURES INDIGENOUS PROPAGATION PROJECT OF THREATENED TURKISH BULBS.

Submission by Ministry of Environment, the Government of Turkey

### OVERVIEW

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OVERALL AIM: To replace the unsustainable trade in wild collected flower bulbs with one based on artificial production and production at the village level.

Objectives:

- To eliminate unsustainable collection of threatened wild flower bulbs;
- To develop a long-term economic alternative for villagers formerly involved in collection, based on village-scale production;
- To supply high quality flower bulbs to the international bulb market.

### THREATS TO BIODIVERSITY:

For over one hundred years, Turkey has been a source of flower bulbs to the international market. During the 1970s and 1980s the scale of trade - based on wild collection by villagers from hill and mountain districts - escalated. By 1986 over 70 million bulbs were traded annually, and many millions were simply thrown away as damaged or undersized. Conservationists deemed this level of collection to be unsustainable for certain species, a view supported by anecdotal evidence from some of the collecting villages. Currently about 15 different species are traded annually, most notably the snowdrops *Galanthus elwesii* & *G. ikariae*, the cyclamen *Cyclamen hederifolium*, *C. coum* & *C. cilicium*, the winter aconite *Eranthis hyemalis*, and the grecian widnflower *Anemone blanda*. Holland represents the world centre of the trade in flowerbulbs, with major markets in Western Europe, N. America and Japan.

### INCENTIVE MEASURES INTRODUCED

DHKD & FFI (see below) introduced a programme to establish village-based propagation in 1992. After a period of trials, commercial production was established in the village of Dumlugöze in the central Taurus Mountains on Turkey's Mediterranean coast. In 1993 the first seven village families became involved in a scheme to artificially propagate *Galanthus elwesii*, plus smaller numbers of *Eranthis hyemalis* and *Anemone blanda*. These villagers were given material free of charge to plant, provided that they were willing to grow them on for a full three years (in which time the small parent stock both increases in size and number, allowing both stock for marketing whilst retaining sufficient for replanting). The first harvest in 1996 was a great success: large bulbs were produced for the foreign market, the harvest event became an important village 'social occasion', with visiting dignitaries, and the

project helped to put a remote and poor village on the political map. By 1997, 160 village families have joined the scheme in Dumlugöze, a further two villages have joined the scheme, and other NGOs have replicated the success of the project in other parts of Turkey.

Two incentive measures have made the scheme a success:

- *the original plant material is provided free-of-charge, on a permanent loan basis.* ie, the villagers cannot sell the original stock and cannot harvest the bulbs until a three year period has elapsed. Thus the only input from the villager is one of labour to plant and harvest the bulbs. Weeding and watering efforts vary amongst growers but are generally minimal. Thus the cultivation of these plants probably requires less effort than harvesting from the wild, which often requires a two week trip with donkeys into the high mountains, to collect sufficient.
- *the cultivated bulbs fetch a premium price.* Through a vigorous PR campaign in some of the consumer countries, consumers are increasingly demanding artificially propagated material. Wholesalers and retailers have seen a decline in trade, and a threat (not catalysed by this project) to ban all imports of Turkish bulbs on environmental grounds means that Turkish exporters are willing to pay up to 2.5 times the price that they would pay for collected material.

## MAIN ACTORS INVOLVED

The Indigenous Propagation Project is a partnership project run by Doğal Hayati Koruma Derneği (the Society for the Protection of Nature, DHKD, based in Istanbul) and Fauna and Flora International (FFI, Cambridge, UK). From 1991 to 1997 the project was funded by World Wide Fund for Nature International, but since July 1997 has been receiving funding from the UK National Lottery.

The project officer(s) work closely with at least some members of the Turkish export trade, formally through a Joint Steering Committee (DHKD is the Secretariat) and on an informal day-to-day basis, as necessary. The traders themselves have been responsible for the formation of a Natural Flower Bulb Association which has been established by the trade to regulate their activities, promote their products, and to encourage research etc. to improve cultivation, propagation and post-harvest storage techniques.

Trade in wild flower bulbs is regulated by the Ministry of Agriculture and Rural Affairs (whose Technical Committee) establishes annual quotas for the export of both cultivated and wild collected bulbs; amends harvesting and export regulations as necessary; and monitors the activities of individual traders. Wild collection is monitored by the Ministry of Forestry, since most collection takes place on state lands, under their management.

To date, the villagers have become involved on an individual/family basis, working directly to the project staff, but current efforts are underway to establish a cooperative within the village, so that it can increasingly manage its own affairs, directly with the exporters (who provide planting material and negotiate on annual prices (the two harvests to date have been marketed directly to the traders, with the IPP only taking a catalysing role).

## MAIN OUTCOME AND LESSONS LEARNT

The project is one of the very few where seemingly all parties are happy with the outcome. The villagers get enhanced income (for no more work), the exporters/Dutch wholesalers are able to sell propagated bulbs to a market that is increasingly demanding non-wild collected material and the numbers of bulbs being collected from the wild is declining.

Perhaps the main reasons for the success of the project have been:

- Pressure from consumers: a decline in quotas permitting export; with threats of halting the trade in Turkish bulbs; with consumers willing to pay a higher price for properly cultivated bulbs, then the traders can see the essential need to change.
- Market demand: this is not a new subject - the demand for flower bulbs from Turkey is a strong and well established one.
- No one is disadvantaged by the trade.

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