

# Kyrgyz Seed Conservation Network

*Building capacity in the Kyrgyz Republic to conserve its most precious natural resource*



## Biodiversity hotspot

The Mountains of Central Asia form one of the world's biodiversity hotspots, representing one of the richest and most threatened reservoirs of plant and animal life on Earth. The hotspot covers most of the territory of the Kyrgyz Republic, a country which holds 70% of the flora that occurs in Central Asia. Over 130 plant species in the country are found nowhere else in the world and 400 species have been identified as rare and threatened. The national flora is used extensively for agricultural, medicinal and economic purposes, forming a central component of the country's natural resources. Over 1,600 plant species have importance in the national economy, including agriculture, animal husbandry, honey production and medicines.

The unique biodiversity of the area is under considerable pressure. A steady rise in the human population and domestic livestock, plus the associated need for land and resources, has made human activity unsustainable in many areas. Habitat destruction, overgrazing and unregulated collection of plants are the three major and continuing threats in the hotspot. Climate change threatens to accelerate rapidly this loss.

Estimates suggest that only around 20% of the original native habitat of the Mountains of Central Asia remains in pristine condition.

## Millennium Development Goals

Biodiversity loss and deteriorating ecosystem services contribute, directly and indirectly, to worsening health, higher food insecurity, increasing vulnerability, a decrease in material wealth, and worsening social relations, including less freedom of choice and action.



The protection and sustainable management of biodiversity, including genetic resources, species and ecosystem services that support human development, is central to achieving the Millennium Development Goals.

The loss of plant diversity in the Kyrgyz Republic is a substantial threat to the achievement of the Millennium Development Goals, risking entire ecosystems and the economic and human development of the country.

## The Millennium Seed Bank in the Kyrgyz Republic

The Millennium Seed Bank has created a global insurance policy for 1 in 10 of the world's plants, working in over 50 countries worldwide.

The partnership network in the Kyrgyz Republic is relatively new, initiated in 2008 with partners from the Institute of Biotechnology and the Institute of Biology of the Academy of Sciences of the Kyrgyz



Republic. Prior to 2008, the Millennium Seed Bank had provided technical expertise for the fledgling seed bank at the Institute of Biotechnology and 300 collections were shared. In the first year of the formal partnership in 2008, 68 new species were safeguarded at the Millennium Seed Bank and in the local Kyrgyz seed bank. In 2009, we are aiming to bank 75 additional species and to train 15 staff of the Institute of Biotechnology, Institute of Biology Botanic Gardens of the Academy of Sciences and staff from Kyrgyz nature reserves to effectively collect and store seeds of native plants.

### Future vision

Building on the success of the programme over the past two years, we are ready to scale-up our activity in the Kyrgyz Republic by investing in the local collection and conservation infrastructure and equipment, developing research collaborations and providing training.

Over the next five years, we wish to accelerate the work of the Millennium Seed Bank in the Kyrgyz Republic to ensure that endangered species are safeguarded and to build capacity within the country to conserve and sustainably use native flora.

By 2015 we aim to:

#### Safeguard 300 native plant species

The flora of the Kyrgyz Republic needs to be urgently conserved. Seed banking is the quickest and most reliable technique for the conservation of species in the face of rapid habitat loss and climate change. We will safeguard 300 of the most endangered, locally important and valuable plants at the Millennium Seed Bank and in local seed banks by 2015.

#### Build the capacity to conserve native flora

There are currently very limited facilities and technical expertise within the Kyrgyz Republic to conserve native flora. We will invest in local infrastructure and deliver training to establish a network of professional seed collectors and conservators. The work will focus on the development of the capacity of our partners at the Institute of Biotechnology and Institute of Biology of the Academy of Sciences.

#### Research the use of native plants to improve sustainable development and well being

The Institute of Biotechnology has already undertaken detailed study of their existing seed collections, with the objective of identifying potential future use for the species, in particular medicinal uses. Research collaborations with researchers at the Millennium Seed bank will develop these studies, enabling more detailed analysis and the possibility of developing products to market. An exchange of research staff between institutions will develop these research links.

We are currently seeking financial partners to join us in this work and achieve our ambitious vision.



*The tulip is a national and cultural symbol of the Kyrgyz Republic. Over collection has led to the rapid decline of many of the country native wild species.*



For more information on the work of the Millennium Seed Bank in the Kyrgyz Republic, contact:  
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