

Innovative ideas and actions to promote the pollinator-friendly practice as a post trialogue learning points from Kazakhstan





Geographic location of Republic of Kazakhstan

Total area: 2,717,300 square kilometers. It is a nine largest country in the world with a territory equal to that of Western Europe.

Agricultural land - 222.6 million hectare versus 11,5 mln. ha of forests (4%) in Kazakhstan. 383.7 million m³ of standing timber ranks.

Terrains and ecosystems: Forests in Kazakhstan vs fertile forest-steppe Russia (north), foothills and slopes of the Altay, Alatau and Tien Shan mountains.

Population and distribution: Total population is 16,8 mln. Forest land density - 0.77 ha/person, 300,000 people are directly dependent on the sector.

Borders: Turkmenistan, Uzbekistan, and Kyrgyzstan to the south; Russia to the north; Russia and the Caspian Sea to the west; and China's Uygur Autonomous Region to the east.

Highest point: 7,010 meters, or 21,999 feet above sea level

Lowest point: 132 meters



Key Partners

Kazakhstan Association of Producers
and Processors of Nuts and Berries



National Union of Beekeepers
of Kazakhstan “Bal-Ara”



Legislation Related to Pollinators in Kazakhstan

In the Republic of Kazakhstan, the following environmental objects are legally subject to protection: “Earth, subsoil, surface and underground waters are subject to protection from destruction, degradation, damage, pollution and other harmful effects; atmospheric air; forests and other vegetation; animal world, gene pool of living organisms ... ”(EC RK, art. 7, item 1).

Industry development programs have been developed:

- Ball 2050
- Zhidek 2050
- Жаақ 2050



Current & Common Problem

Today, approximately 64% of land resources in Central Asian countries are degraded due to erosion, compaction and salinization, leaching of organic matter and nutrients, acidification, pollution and other processes associated with unsustainable land management practices.

Unless new approaches are introduced, the total per capita arable and fertile land in Kazakhstan may get lost for ever.

6th largest what produces in the world, central Asian countries dependent on wheat and oil crops of Kazakhstan.

Factors affecting soil degradation:

- Waterlogging and excessive drying of the soil,
- Acidification and salinization of the soil,
- Excessive use of mineral fertilizers and pesticides and fungicides,
- Violation of crop rotation.



Current & Common Problem

- Bees are declining [honeybee and wild bee] □ pollination services at risk, numbers are decreasing.
- Knowledge of pollination and pollinator management is fragmented
- Honeybee and wild bee community partly estranged
- Multifactorial problem [e.g. pests and pathogens, agricultural practice]



Project Pbjective: BesNet Kazakhstan

Improve production



Mitigation of loss



Drivers of loss



The main objective of the BesNet project in Kazakhstan is to integrate knowledge and develop methods to underpin sustainable pollination services in Kazakhstan and Central Asia and Caucasus



Pollination research



Trialogue and cooperation



Large network to share, develop and advice



Pollinator-friendly practice

1. Implementation of honey plant conveyors

2. Annual white sweet clover

- Effective as a fertilizer for calcareous alkaline soils;
- Accumulates nitrogen in the soil;
- Due to the developed root system, it loosens the soil, Improves its structure, prevents weathering;
- Carbonic acid released by the roots reduces soil salinity;
- Promotes soil health by dealing with root rot, nematodes and wireworms.

3. Phacelia

- Enriches the soil with nitrogen and potassium;
- Lowers acidity;
- Gets rid of weeds;
- Shallow roots, after cutting the aboveground part, quickly rot, thereby making the upper part of the soil looser and more breathable;
- Promotes soil health by coping with a nematode.





Pollinator-friendly practice

- 1. Establish crop pollination as an agricultural input**
 - Quantify relative contributions of insect pollination to crop production
 - Understand the barriers and incentives to farmers embedding pollination into standard practices
 - Develop key messages and case studies to underpin multi-media materials to enable pollination to be considered in Kazakhstan policy and practice levels

- 2. Establish the wider benefits of pollinators and pollination for ecosystem service provision**
 - Review the evidence for the aesthetic, recreational and cultural values derived from pollinators and pollination services
 - Explore ways to integrate pollination into the activities of land managers, conservationists, policy advisors, industry, planners and the general public.

Pollinator-friendly practice

- State subsidy programs for pollination services
- BesNet Platform with dedicated stakeholder section and materials
- Research-stakeholder agenda-setting workshop
- Workshop to identify policy opportunities
- Outreach training for scientists
- Build partnerships between farmers, business, beekeepers, professionals
- Demo plots and etc.





- Planting melliferous grasses, fruit and berry bushes and walnut crops on abandoned, eroded and degraded lands.
- Providing alternate habitat for bees off the crop, such as flower strips or weed margins





Public and Private Partnership «Torgen»





Beehives in Almaty, Kazakhstan





**Thank you for
your attention**

