Results of identification and valuation of ecosystem services (ESVAL)

A need for proper recognition of value of biodiversity and ecosystem services

- **Theory of economic valuation of ecosystem services in the context of sustainable development**
- Rational planning and introduction of biodiversity into primary economic sectors.
- Improvement in awareness and opportunities for proper valuation and introduction of such valuation into the national and regional planning as well as development.

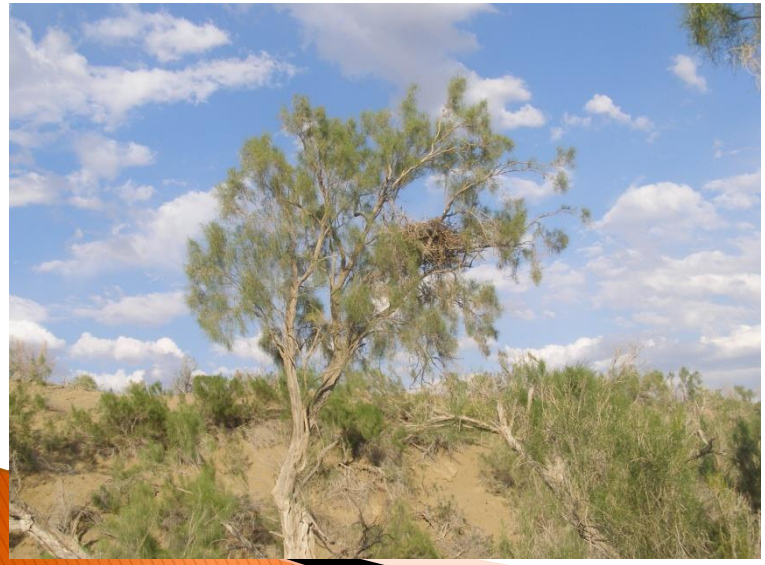
What is economic valuation of ecosystem services needed for?

- International obligations of Turkmenistan under the CBD:

  - The CBD Action Plan, the so-called Aichi Target Goals that provide for awareness about valuation of biodiversity as well as the inclusion of those values into national and local development strategies

Main ecosystems of Turkmenistan

Ecosystems



- **A Technical Group for Identification and Valuation of Ecosystem Services (ESVAL)** was created as part of the Project “Planning National Biodiversity to Support the CBD Strategic Plan of Turkmenistan for 2011-2020” (BSAP) in January 2014.
- This group included representatives of ministries, agencies, institutions and public organizations

Economic valuation of ecosystem services in Turkmenistan

- In order to conduct the economic valuation of ecosystem services, **“Fast Identification and Valuation of Ecosystem Services Methodology”** was used.
  - A 10-day training by the Metroeconomica Ltd. (UK)
  - Created a technical group of specialists

Economic valuation of ecosystem services in Turkmenistan

- In order to identify and select the most important ecosystem services, a **methodology providing for engaging stakeholders was used**:
  - In *velayats* (provinces) of the country, we conducted methodological workshops with the participation of representatives of sectors of economic development, environmental protection and public governance at the local level

Stakeholders in *velayats*

- Agriculture
- Land resources service
- Livestock farming
- Industry
- Water resources
- Fishery
- Environmental protection, forestry
- Transport
- Tourism
- Department of statistics, socioeconomic development and finance
- Education

Process of identification and selection of ecosystem services

I. Identification of main ecosystem services

II. Selection of most important ecosystem services

III. Grading selected ecosystem services

- economic value
- ecosystem support value
- local value, dependence
- cultural, aesthetic value

Collection of information to valuate ecosystem services

Receipt of initial quantitative information:
- valuations by local specialists;
- working with documents, scientific publications and other sources

Receipt of information on site:
- interviewing specialists, users;
- visiting important habitats;
- working with specialists of users' organziations

Information processing:
- selection of the methodology to valuate ecosystem services;
- selection of information for valuation;
- valuation

Main ecosystem services

- Irrigation water
- Potable water
- Tourism and recreation, resorts, historical and cultural sites
- Habitats in national parks
- Pastures
- Natural parks' landscapes
- Products of hunting and fishing
- Fruit gathering including pistachio
- Medicinal herbs and fats
- Pollination
- Climate regulation by forests

- As a result of the analysis performed, the total value of ecosystem services in Turkmenistan totals about **TKM 7,84 per year**, or **USD 2,751 per year**. This accounts for c. **3%** of the Gross National Product or **14%** of the Gross Agricultural Product.

What is economic valuation of ecosystem services needed for?

- Dependence of the mankind's existence on key functions ensuring uninterrupted supply of products and support of vital natural systems
- Reduction of expenditures on the provision of ecosystem services from alternative sources
- Facilitation of conservation and prevention of destruction with the latter, in turn, resulting in costs to restore or provide an alternative

- Economic valuation of ecosystem services is a result of economic calculations which, in turn, allows creating a whole new **information framework for management decision making in nature use**.

Thank you!