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# **Ecosystem approach in basin management in Central Asia: from theory to practice (on the example of Ili-Balkhash basin)**



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# The Basin Principle of Water Resource Management

The basin principle of the water resource management declared in Water Code of Kazakhstan Republic requires the principle changes of the existing management system at the national and local levels.

The basin councils should play the creative role in further management. According to European Water Framework Directive the basin principle will allow to achieve the sustainable long-term use of water resources.



# Ecosystem Approach



Officially ecosystem approach was approved by 5 COP of the Convention on Biological Diversity (CBD) in May 2000 in Nairobi (Decision V/6, with designation of 12 principles of the Ecosystem Approach).

It is possible to describe this approach as a strategy for complex management by land, water and biological resources directed on their conservation, rehabilitation and sustainable use on the base of validity.

# Ecosystem Management



*«The management of the water-resources of transboundary rivers should apply the ecosystem approach and to be carried out by fair and reasonable image which not rendering mutual damage».*

**Almaty Declaration of the Heads of the Central Asian States (28 September 1997)**



# Ecosystem Management in CAR

- **Mutual efforts for the wise management of water-resources for the reduction in the level of poverty;**
- **Introduction of the integrated water-management reflecting ecosystems and sectoral interests of all water users (energy, agriculture, industry, environment, water supply, sanitary, etc.);**
- **Agreements on the effective management of transboundary water-resources and improvement of work of basin organizations in the river basins;**
- **Sustainable use and rehabilitation of coastal and aquatic ecosystems such as forests, wetlands, grasslands, etc. as a contribution in MDG and halt of biodiversity loss to 2010;**

**Dushanbe International Forum on freshwater (1 September 2003).**



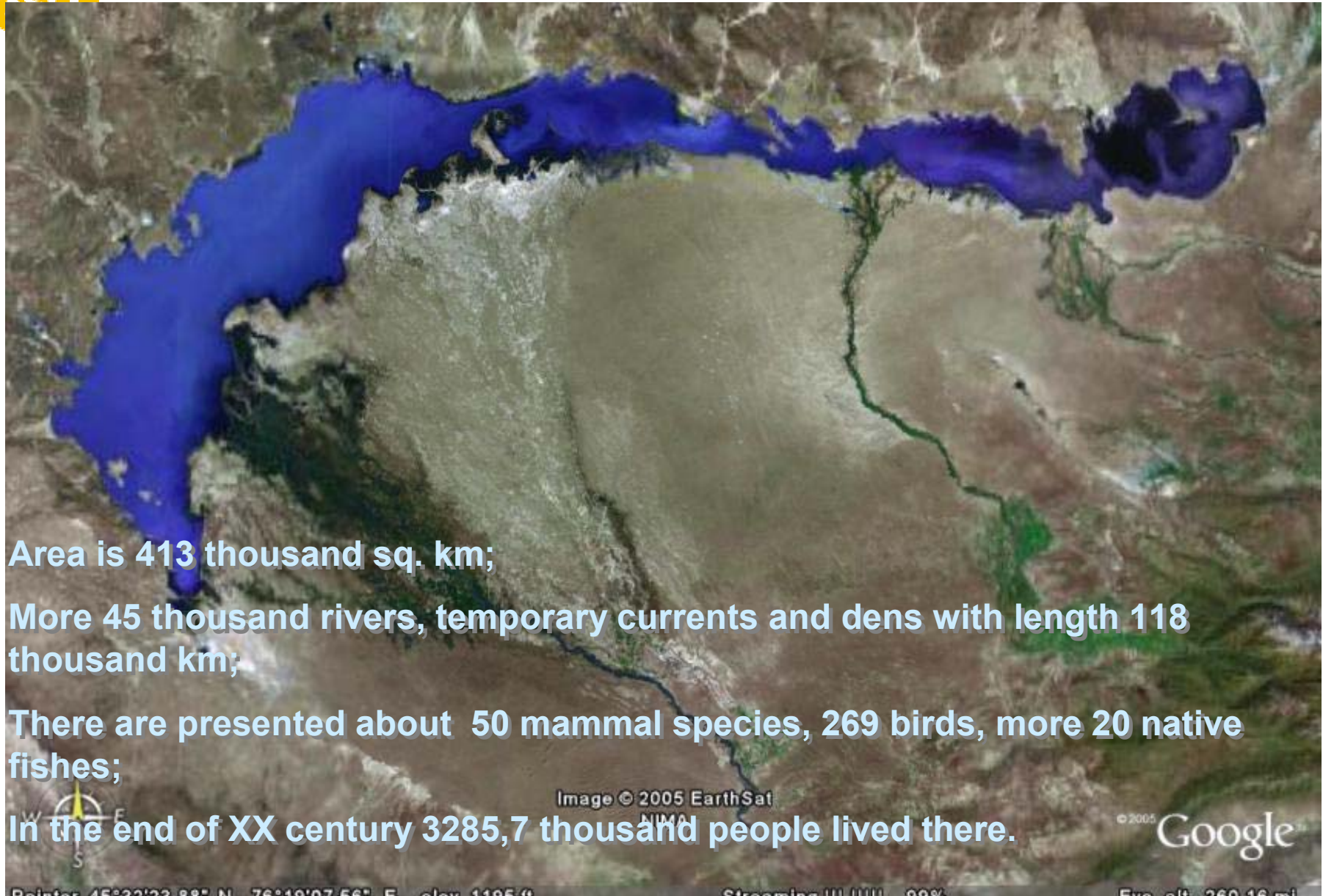
# Concept of the Sustainable Development of Ili-Balkhash Basin

Concept is directed for the achievement of following goals:

- Conservation and rehabilitation of the hydrological regime of the Balkhash Lake, natural (terrestrial and aquatic) ecosystems as a base for vital activity in the region.
- Development of environmentally friendly activity, steady energetic and agriculture, transport and communication infrastructure.
- Development of human potentiality, protection of cultural wealth and physical health.



# Natural and historic features of the Ili-Balkhash Basin



Area is 413 thousand sq. km;

More 45 thousand rivers, temporary currents and dens with length 118 thousand km;

There are presented about 50 mammal species, 269 birds, more 20 native fishes;

In the end of XX century 3285,7 thousand people lived there.



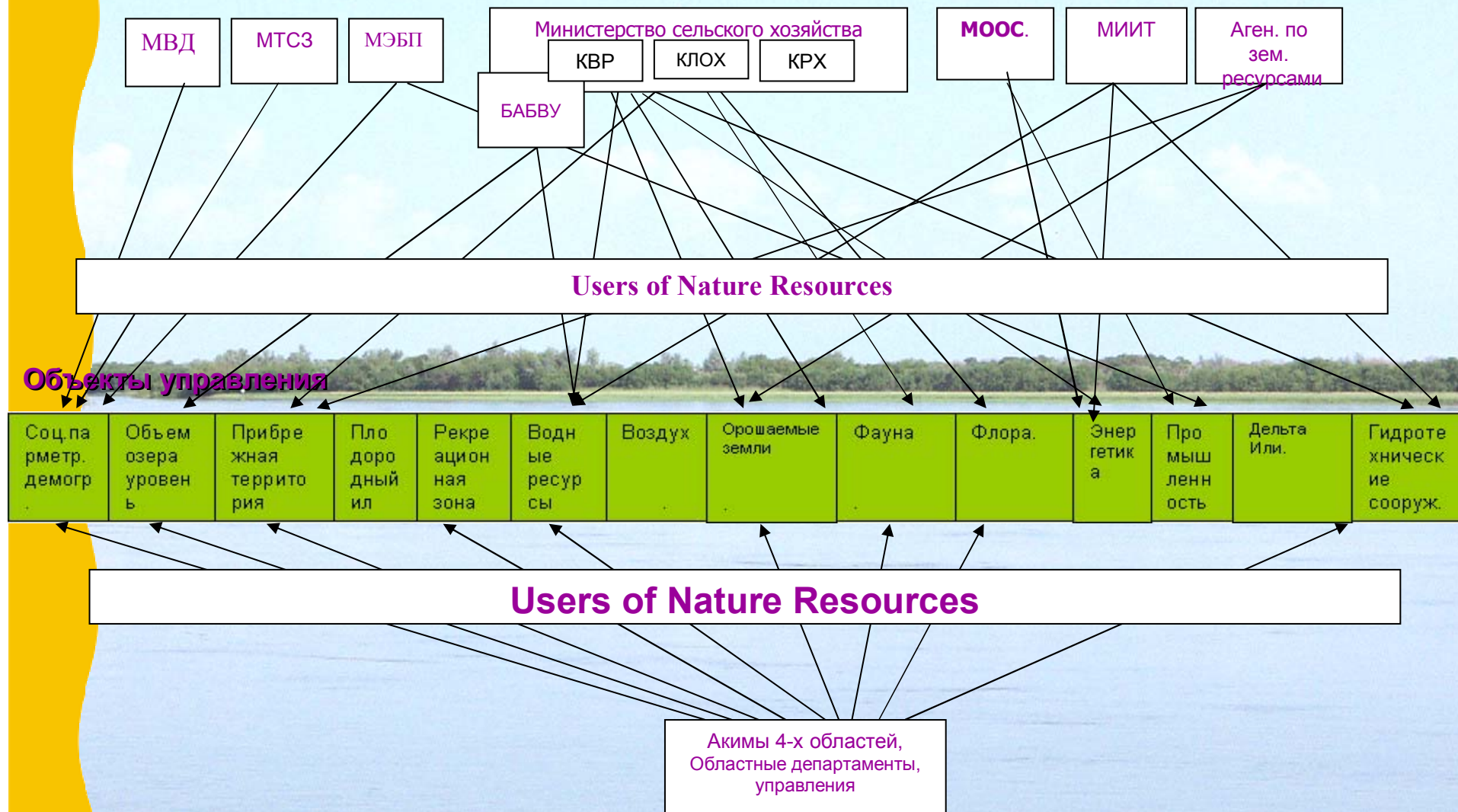
# Current Problems of IBB Development

- In the current conditions the main problems of the basin development are:
- Unsustainable use of the water, loss of biological resources, declining of ecosystems;
- Desertification and as a consequence the loss of agricultural lands and their productivity;
- Continuing pollution of the waters in the basin by industrial wastes;
- Weak economic development and absence of the general development goals and long-term programme for the basin;
- Fragmented division of the duties and responsibilities between sectors;



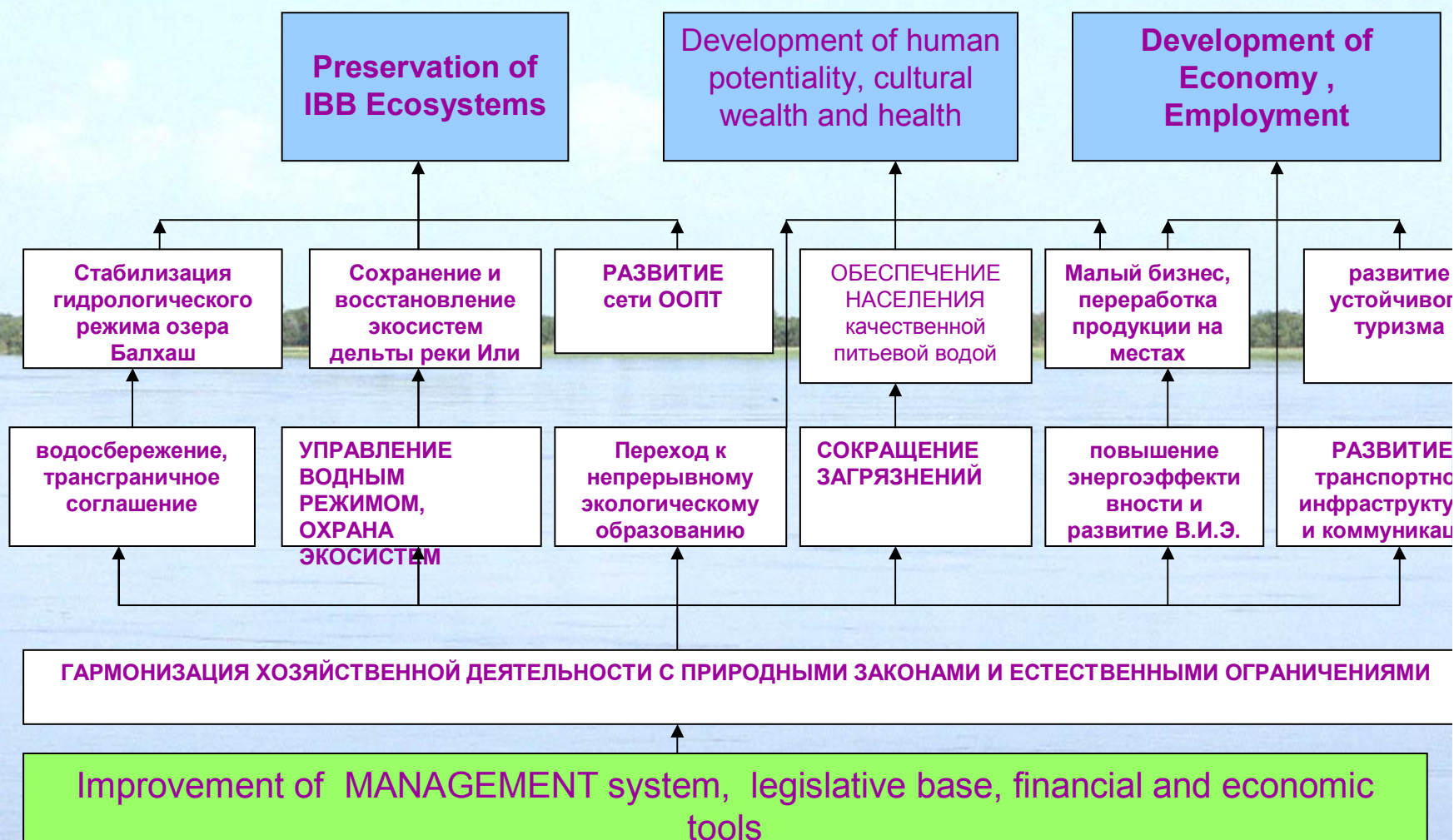
# Current problems of IBB Management

## Subjects of Management



# Priorities of the IBB Development

## Goals of the IBB Sustainable Development







# Elaboration of the IBB Integrated Management Plan

## Project components:

- Study of the international experience, modeling and use of local knowledge in the development of IBB management;
- Involvement of the interested stakeholders;
- Public awareness and public participation;
- Creation of the body for the basin management;
- Elaboration of the basin management plan;
- Preparation of the draft agreement for the cooperative basin management;
- Establishment of the technical secretariat.



# Involvement of Interested Stakeholders

The balanced development is based on the involvement of local administrative authorities, NGO-s, business sector, other interested stakeholders. The dialog between civil society, NGO-s, private companies and local powers will support the achievement of common needs and purposes.





# Raising of Public Awareness

The public awareness campaign will include the sharing of information and discussion of the development goals with all interested stakeholders on the meetings, round tables, conferences and training workshops.






# Establishment of the Basin Management Body

Basin Management Body will be suggested as an effective mechanism for sustainable and integrated management and intersectoral coordination. It will allow:

- To evaluate the current management system including three administrative levels – central (republican), regional and local;
- To elaborate the model of the new organizational structure which will allow to improve the intersectoral cooperation and coordination;
- To investigate the social, political, institutional and legislative constraints which determine the current management systems in the basin.



# Development of IBB Management Plan

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- Assessment of the resources and energetic capacity of the basin;
  - Evaluation of environmental and demographic potentialities;
  - Estimation of the eco-rent potentiality of the water systems of the Balkhash Lake including river networks;
  - Re-assessment of the main productive forces in IBB and estimation of eco-rent financial-proceeds of credit for Balkhash and whole basin;
  - Substantiation of the integrated scheme of the financial and economic development and assessment of goods and services of the ecosystem social and economic needs and opportunities of the region;
  - Analysis of the ongoing programmes and projects and trends in social economic and environmental situations;
  - Achievement of consensus between all stakeholders, responsible for the basin management, in the measurable purposes of the IBB development;
  - Maintenance of the IBB development plan interaction with long-term plans of the social and economic development of the Kazakhstan, with programmes and projects of neighboring China and Kyrgyzstan;
  - Using of the economic and financial mechanisms for implementation of the plan taking into account the eco-rent, basin tax system, other innovative approaches which secure the favorable stimulation for sustainable IBB development.



## **Preparation of the project of the Agreement on the basin management**

- Analysis of the existing legislation base and barriers which prevent the ecosystem preservation and achievement of sustainable development goals;
- Elaboration of recommendations on the strengthen of the legal basin status and implementation of international obligations;
- Preparation of the project of Agreement as a legislative base for the introduction of ecosystem basin management and achievements of the regional SD goals.



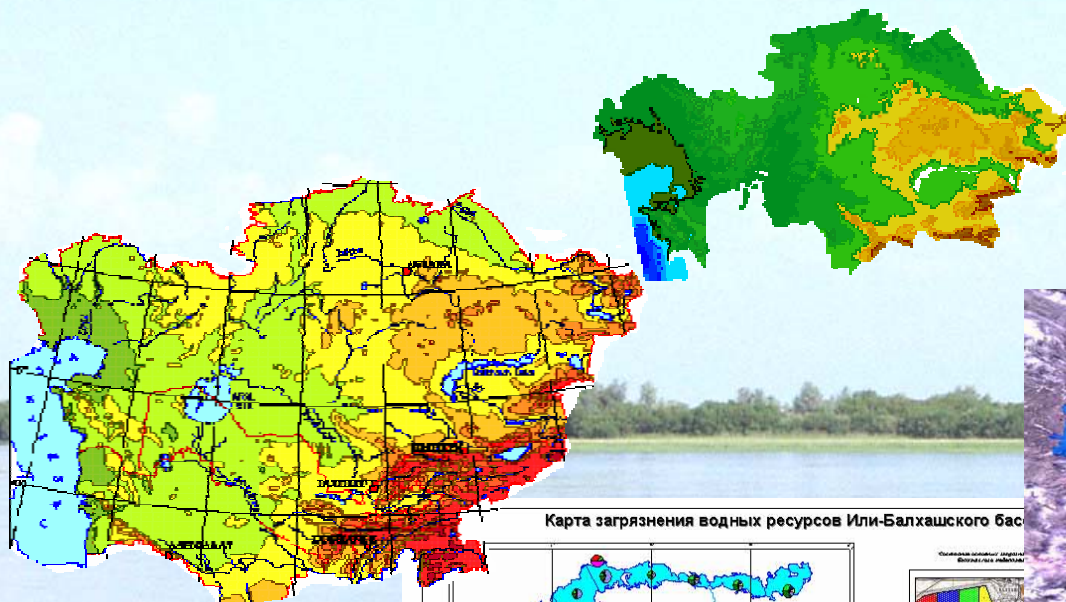


# Establishment of Technical Secretariat

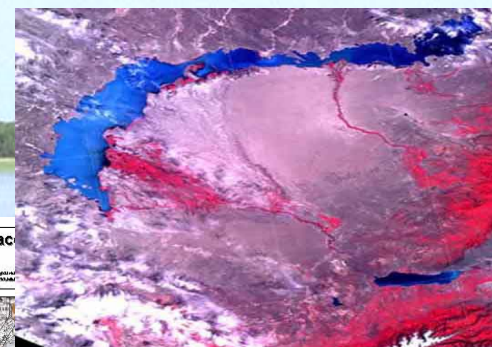
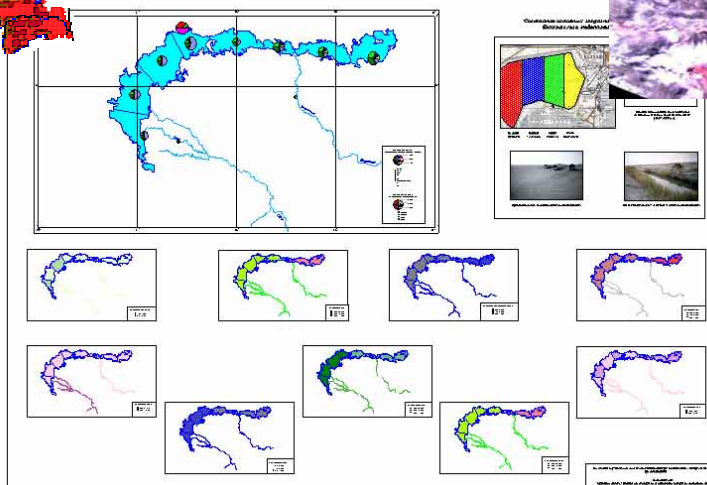
CA region

Kazakhstan

Balkhash Lake



Карта загрязнения водных ресурсов Или-Балхашского бас



## Expected Results

- Model of Ecosystem Management for IBB based on the best world experience;
- Long-term IBB development plan accumulated interest of all stakeholders;
- Preparation of the base for the basin management body with necessary powers;
- Preparation of the Agreement of the partnership for the effective basin management as the legal base for execution of the IBB management plan;
- Creation of the strong technical secretariat with necessary facilities for IBB Plan implementation.



# Thank you!

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