

TOWARDS THE 6th WORLD WATER FORUM – COOPERATIVE ACTIONS FOR WATER SECURITY

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Guaranteeing Water for Future Generations

FROM 1997 PRINCIPAL PROVISIONS, TODAY, AND TOWARDS THE FUTURE – IWRM in ASB

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**Основные положения региональной
водной стратегии (1997)**

**The 1997 Principal Provisions of Regional
Water Strategy**

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- **ЦЕЛИ И ПРИНЦИПЫ РЕГИОНАЛЬНОЙ ВОДНОЙ СТРАТЕГИИ**
- **ОСОБЕННОСТИ ПОСТРОЕНИЯ И РАЗВИТИЯ РЕГИОНАЛЬНОЙ ВОДНОЙ СТРАТЕГИИ БАССЕЙНА АРАЛЬСКОГО МОРЯ (МЕТОДИЧЕСКИЕ ПОДХОДЫ)**
- **ЭКОНОМИЧЕСКАЯ И СОЦИАЛЬНАЯ ОБСТАНОВКА**
- **ВОДНЫЕ И ЗЕМЕЛЬНЫЕ РЕСУРСЫ**
- **ПРОБЛЕМЫ ОКРУЖАЮЩЕЙ СРЕДЫ**
- **СОГЛАСОВАННЫЕ ПОЗИЦИИ “ОСНОВНЫХ ПОЛОЖЕНИИ РЕГИОНАЛЬНОЙ ВОДНОЙ СТРАТЕГИИ”**
- **СОЗДАНИЕ МЕХАНИЗМА УСТОЙЧИВОГО УПРАВЛЕНИЯ ВОДНЫМИ РЕСУРСАМИ**
- **ВОПРОСЫ, ТРЕБУЮЩИЕ ДОРАБОТКИ НА ПОСЛЕДУЮЩИХ СТАДИЯХ**
 - В рамках стратегии вододеления
 - В рамках стратегии рационального использования водных ресурсов
 - В рамках стратегии охраны водных ресурсов
 - Система поддержки управления
- **ПЛАН МЕРОПРИЯТИЙ ПО РЕАЛИЗАЦИИ СТРАТЕГИИ**

The ASB population

1960 – 16 million

1995 – 38 million

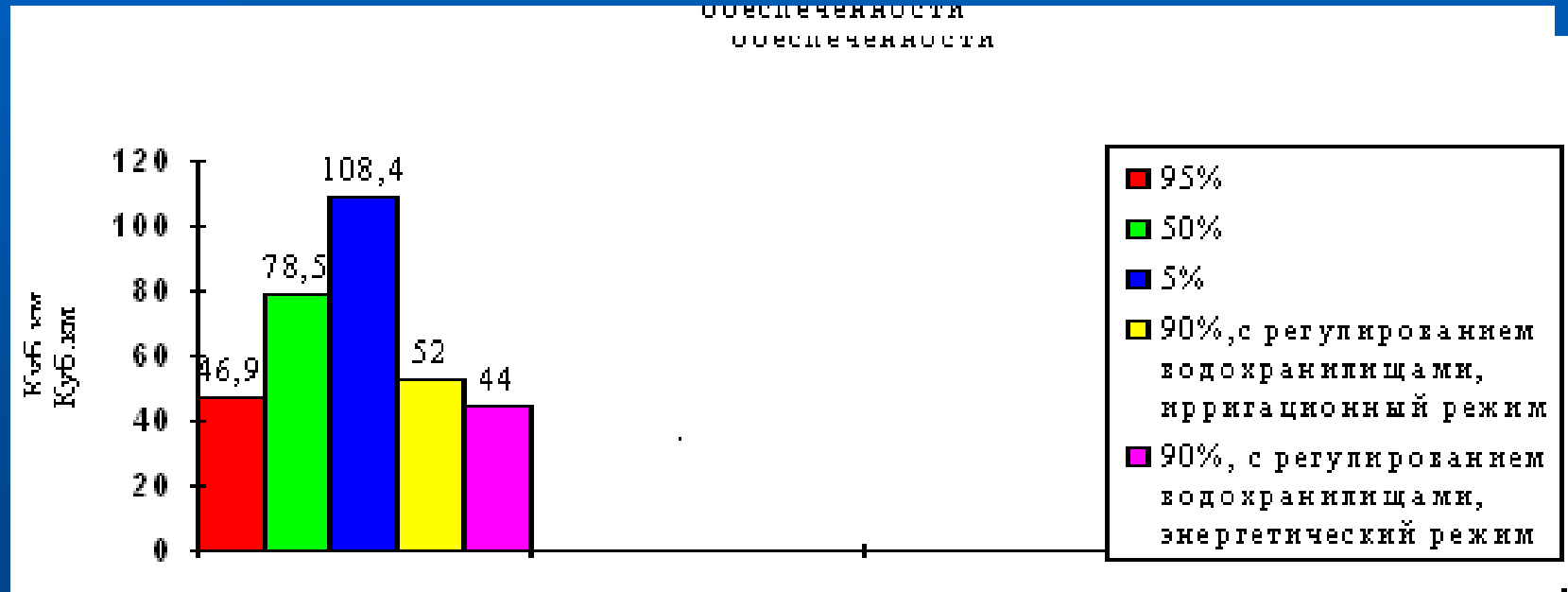
2010 – 50 million (forecasted in
1994, by now ???)

The ASB land resources (1994)

- The ASB area -155,4 Mha
- Suitable for irrigation - 32,6 Mha
- Actually irrigated - 7,9 Mha
- Drainage needs - 5,0 Mha
- rehabilitation of irrigation and drainage systems badly needed.
- Soil salinity - most serious issue
- Special problems in the deltas and upstream watersheds

Water resources (1994)

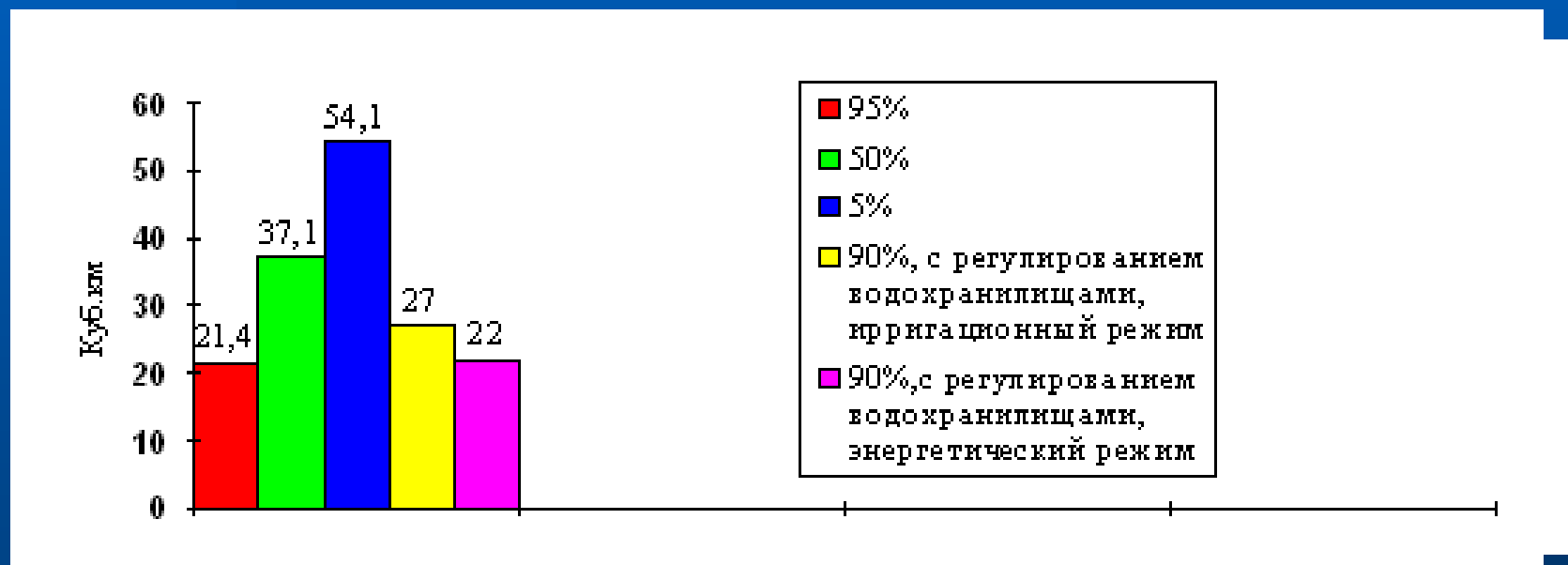
- Amudarya



- But total for 1994 (wet year) – 117,8 km³ (surface – 80,3; groundwater – 6,2 and **return drainage water – 31,3**)

Water resources (1994)

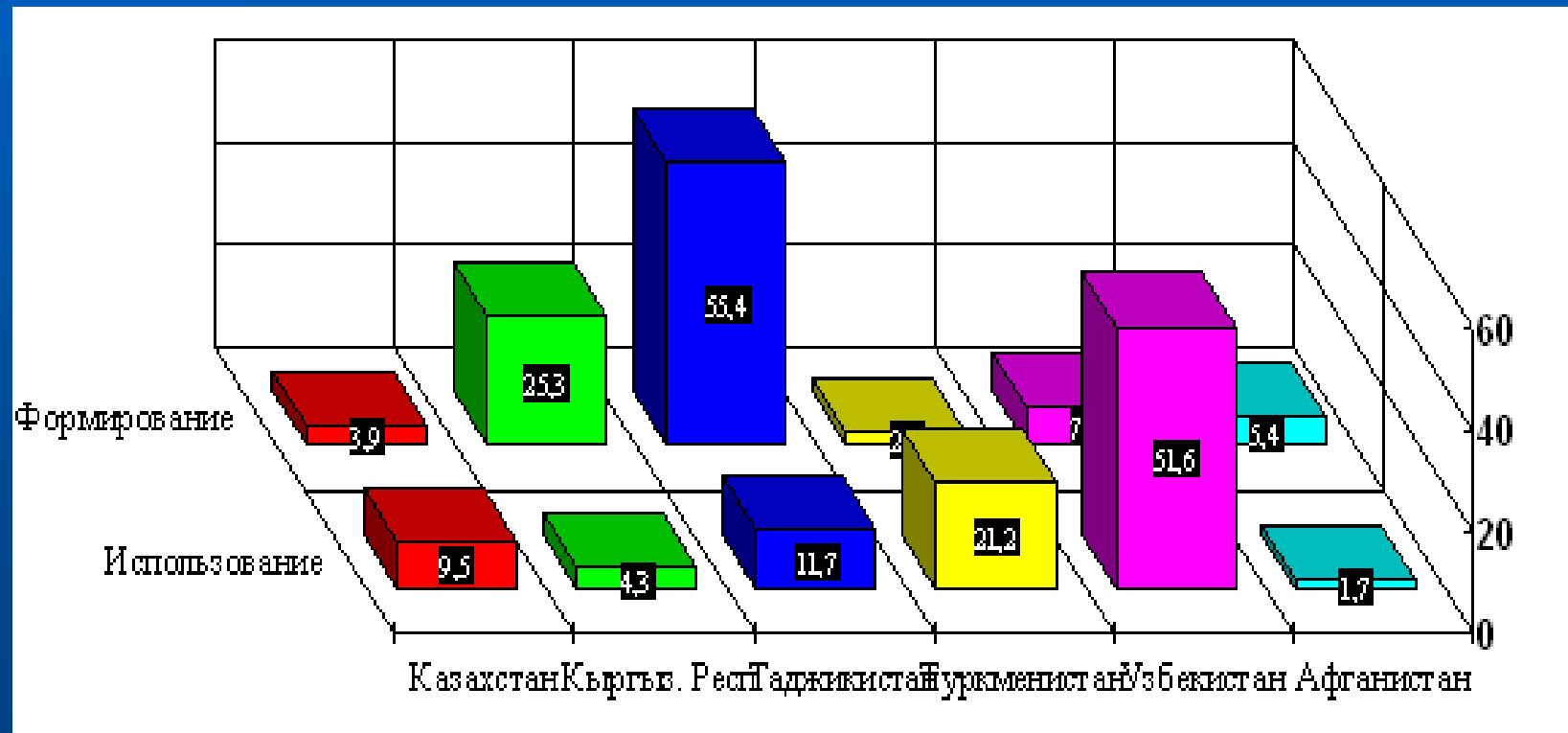
- Syrdarya



But total for 1994 (wet year) – 41,2 km³ (surface – 41,2; groundwater – 7,8 and **return drainage water** – 14,6)

The total in ASB in 1994 – **182,4 km³** , while in 1990 (dry year) – **166,5 km³**

Flow formation and use (1994)



Water use (1994)

- Calculated summary demand of all economic sectors (taken from the national reports) was by **40,1 km³** higher than the actual withdrawal;
- It would be so, assuming that all the existing irrigation systems are supplied with water according to the present national „norms“ - irrigation water application rates per hectare,
- **Conclusion - reassess irrigation „norms“ !!!**
- With the exception of Kazakhstan, **all countries wanted in 1997 to expand irrigation by 2010** to the total of 1 million ha => 18 km³ of water
- **But it didn't happened !!!**

Principal challenges (1994)

- Changing human behavior and motivation
- Information improvements
- Managing transboundary resources
- Increasing water use efficiency (water conservation)
- Water quality control
- Salinity management
- Environmental concerns, and
- Improving implementation capability

Today

Today

- The available resources in both Amudarya and Syrdarya under stress because of the water-energy nexus, resource variability higher and climate change shows up,
- Population growth, industrial development, still too high unit irrigation water use, – the **water system is more and more stressed ...**
- Weakness of institutional mechanism of WRM **(no I!)**, at both transboundary and national levels, combined with low funding of water sector, incl. maintenance of the existing water infrastructure ...
- The situation is serious, and referring to Concept Note, **„no action“ is „a path to losses, unexpectedness and confrontation“...**

The future

The future

- A sense of urgency must be brought to the international debates on rehabilitation and further development of the ASB
- The fundamental question is what are the short, medium and long-term priorities of the newly planned ASBP-3; e.g. priority attention to Amudarya
- Lessons must be learned from implementation of the earlier ASBPs, **incl. Principal Provisions of Water Strategy in ASB of 1997.**

The future

- The ASBP-3 should move rapidly because changes are gradually becoming more and more difficult to reverse
- Any strategy that aims at sustainable management of ASBs natural resources must **built on the positive links between development and environment** and seek break the negative links.

The future

- Interstate agreement for the ASB is needed that addresses the cost sharing of operations and maintenance of transboundary waters, rehabilitation and modernization of infrastructure and regulation of information exchange;
- Development of regional power market is advisable to increase cooperation and to ensure that benefits generated from the water and energy cooperation are distributed among the basin states.

The future

- Food security issue in the ASB should be given special attention;
- During the period 1957-1980 the glaciers in the ASB lost 20% of their ice cover (EDB and IFAS, 2009) – adaptation to climate variability and change with special attention to the AS coastal areas and upstream watersheds is one of the priority issues.

Conclusion

- When assessing the future, one has to remember that irrespective of several disadvantages, regional resources are sufficient to meet water needs of all basin countries, provided the noble goal to guarantee water for future generations is taken as principal direction of all remedial actions considered and implemented.