

### SCARCITY OF WATER RESOURCES

If the wars of the last century were fought over oil, the wars of this century will be fought over water  
Ismail Serageldin,  
a founder of the Global Water Partnership

**Water crisis**  
is a high priority hazard for humanity  
in terms of expected impact  
*World Economic Forum Global Risks Report 2015*

Water resources determine:

- economic sustainability
- social and demographic development
- ensuring global, regional and national security

Factors aggravating deficit of the water resources

- Global warming and climate change
- Non-rational water consumption
- Water quality deterioration
- Jobbery and politicization of water problems

Global water problems are threats for sustainable development and international security that require neutralization

global water resources 100  
global demand for water 140  
2030 year

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## GLOBAL WATER PROBLEMS: CLIMATE-RELATED

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### MITIGATION OF CLIMATE THREATS

- 💧 Adaptation measures
- 💧 Appropriate management policy based on observation data and research

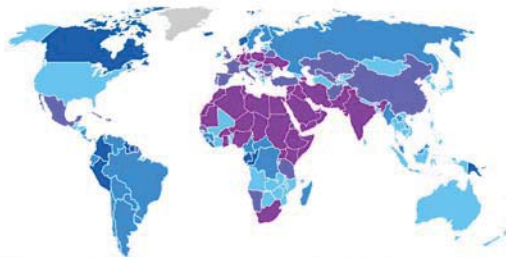


## GLOBAL WATER PROBLEMS: GEOGRAPHY-RELATED

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Non-uniformity of surface water distribution in different regions of the world is one of the main causes of interstate conflicts

### WATER AVAILABILITY IN DIFFERENT COUNTRIES OF THE WORLD



### CONFLICTS AND CRISES RELATED TO WATER DEFICIT



## GLOBAL WATER PROBLEMS: MAN-MADE AND TECHNOLOGICAL

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### MAN-MADE AND TECHNOLOGICAL FACTORS OF WATER RESOURCES DETERIORATION:

- Development of industry and agriculture
- Low level of technological development
- Population growth and urbanization
- Reduction of forest area and desertification
- Non-rational use of water resources
- Water pollution caused by untreated sewage



## SOLUTIONS TO WATER PROBLEMS

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### INTERNATIONAL ORGANIZATIONS

UN, UNECE, OSCE, UN WATER, UNESCO,  
UNESCO's International Hydrological Programme (IHP),  
Institute for Water Education UNESCO-IHE,  
World Water Council, regional integration formations CIS, EEU, etc.



### SPECIAL UNITED NATIONS MILLENNIUM DEVELOPMENT GOAL FOR WATER AND SANITATION

**Goal 7**  
Ensure environmental sustainability

**Target 7.C**  
Halve, by 2015, proportion of the population  
without sustainable access to safe drinking water  
and basic sanitation

- Targeted consistent efforts of the international organizations
- Providing an international legal basis for conflict-free and just management of transboundary water bodies and water basins
- Arranging research, developing data exchange and interactions



The General Assembly declared 2005-  
2015 the International Decade of Action  
"Water for Life"

## ENSURING WATER STABILITY

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### The Convention on the Protection and Use of Transboundary Watercourses and International Lakes

(Helsinki, Finland, 17th March, 1992)  
40 countries, including the Russian Federation

#### PROVISIONS OF THE WATER CONVENTION ARE SUPPLEMENTED AND SUPPORTED BY:

-  **The Espoo Convention – The Convention on Environmental Impact Assessment in a Transboundary Context** (Espoo, Finland, 1991)
-  **The Convention on the Transboundary Effects of Industrial Accidents** (Helsinki, Finland, 1992)
-  **The Aarhus Convention - The Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters** (Aarhus, Denmark, 1998)
-  **United Nations Framework Convention on Climate Change** (Brazil, Rio de Janeiro, 1992)
-  **United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa** (France, Paris, 1994)
-  **The Ramsar Convention** (formally, the Convention on Wetlands of International Importance, especially as Waterfowl Habitat, Iran, Ramsar, 2<sup>nd</sup> February 1971) **and others**

## PRINCIPLES AND COMMITMENTS OF TRANSBOUNDARY WATER COOPERATION

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-  **The commitment of prevention**
-  **The commitment of restriction and reduction of considerable transboundary effect**
-  **The principle of just and rational use**
-  **The principle of sustainability**
-  **The principle of collaboration**
-  **The principle of pacific settlement of disputes**

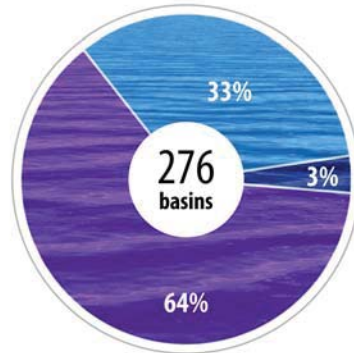
A special value of the Water Convention and other UN environmental protection conventions is the recommendations they provide to promote and develop the institutional structure for transboundary cooperation

## TRANSBOUNDARY WATER BASINS OF THE WORLD

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- 276 transboundary water basins join 145 countries
- These basins provide water for a half of the world land

### TRANSBOUNDARY WATER BASIN MANAGEMENT



are governed by inter-state agreements

have inter-state regulation instruments that define modes of operation of reservoirs, volumes of ecological security drawdowns, rules of water distribution in the low water periods

are managed depending on a local situation thus forming certain instability in regional water security which can grow into a conflict

## IMPROVEMENT OF THE INTERNATIONAL WATER LAW PROVISIONS

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International water law is a framework that **does not provide clear recommendations** for use and management of transboundary waterways

The phenomenon of «**hydroegoism**», observed both domestically and internationally, is evolving worldwide

Today, a key objective is development of **an ethical code** for water use and management in the framework of the international water law

Development of the principles of **integrated water resources management** and institutional bases of transboundary water cooperation

## MAJOR ASPECTS OF INTERNATIONAL WATER DIALOGUE

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- Development of international water cooperation, its legal and institutional bases
- Geographic enlargement of authority of the international water law provisions and enlargement of its subject structure
- Scientific knowledge and innovation technology exchange, information interaction of the parties
- Principle of management of water resources within a hydrographic basin as a foundation of transboundary cooperation
- Interstate water basin cooperation in water-scarce regions
- Resource conservation and rational water use as a basis for national plans of water economy development
- Implementation of the international law provisions and best practices

