

THE SUSTAINABLE DEVELOPMENT OF WATER RESOURCES

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Abstract

Water is the essence of life. Fresh water resources have faced a crisis worldwide for the last five decades. This is manifested in numerous challenges showing the various elements of the problem. These challenges include, increasing scarcity of fresh water, lack of accessibility to adequate clean drinking water and sanitation, deterioration of water quality, fragmentation of water management nationally and globally, decline of financial resources allocation for water development, threat to world peace and security and a continuing lack of awareness of the magnitude of the problem by the decision makers and the public at large. The World Water Council was established as an international non-governmental think tank to deal with these challenges. It has stated a target to define the vision for the world water, life and the environment for the next century. The guiding principles for the vision are based on clear assessment of the world fresh water resources, application of the integrated water resources management, valuation of water, common and shared world interest among the stakeholders and their effective participation, comprehensiveness and global coverage of all forms of fresh water and the existence of will and commitment to translate the vision into action.

Key words: Water resource, sustainable development, water management, environment, etc.

1. Introduction

Water is crucial for all aspects of life, the defining features of our planet, Ninety seven and a half per cent of all water is found in the oceans, of the remaining freshwater only one per cent is accessible for extraction and use functioning and healthy aquatic ecosystems provide us with a dazzling array of benefits. At the beginning of the 21st century, the world faces water crises, both of quantity and quality caused by continuous population growth, industrialization, food production practices increased living standards and poor water used strategies. Waste water management or the lack of has a direct impact on the biological diversity of aquatic ecosystems, disrupting the fundamental integrity of our life support system. It is essential that waste water management is consider a part of integrated, ecosystem based management that operates across sectors and borders.

2. The UN and water

- The United Nations has long been addressing the global crisis caused by insufficient water supply to satisfy basic human needs and growing demands on the world's water resources to meet human, commercial and agricultural needs.
- UN organised the UN Water Conference (1977); International Conference on Water and the Environment (1992); and Earth Summit (1992).

3. The right to water

- In July 2010, the UN General Assembly recognised the human right to water and sanitation.
- The Assembly recognized the right of every human being to have access to sufficient water for personal and domestic uses (between 50 and 100 litres of water per person per day).
- Safe, acceptable and affordable water costs should not exceed 3 per cent of household income.
- The water source has to be within 1000 metres of the home and collection time should not exceed 30 minutes.

4. Ensure access to water and sanitation for all

- Clean, accessible water for all is an essential part of the world we want to live in.
- There is sufficient fresh water on the planet to achieve this.
- Due to bad economics or poor infrastructure, every year millions of people, most of them children, die from diseases associated with inadequate water supply, sanitation and hygiene.

5. UN Water Analytical Brief (2013)

- Water is in itself a security risk; and water insecurity could act as a factor for aggravating regional conflicts and tensions.
- The report said water security could contribute to achieving increased regional peace and security in the long-term.

6. Dimensions of the human right to water

- Right to water for life and survival.
- Right to clean drinking water.
- Right to water and sanitation for health.
- Right to water for adequate standard of living.
- Right to food and nutrition.
- Right to water and sanitation as part of right to housing.
- Right to water for food preparation.
- Right to water for food production.

- Right to water as part of right to development.
- Right to water as part of right to natural resources.
- Right to water as an element of right to environment.

7. Water: A key for sustainable development

The role of water in human development and environmental sustainability has been clearly defined in the MDGs and SDGs by dedicating a specific target on water and sanitation as part of the overall goal of realizing environmental sustainability. Sustainable management of water has a crucial part to play in achieving all MDGs.

8. Access to safe drinking water and sanitation is a pre-requisite for

- Poverty eradication.
- Education, gender equality.
- The reduction of child mortality, improved maternal health.
- The combat against major water-borne diseases and achieving environmental sustainability.
- Lack of access to drinking water is an additional burden in achieving socio-economic equality.
- Water is a finite resource that is fundamental to human well-being and only renewable if well managed.
- Smart water management is a pre-condition of sustainable development.
- Managed efficiently, water plays a vital role in strengthening the resilience of social, economic and environmental systems in the face of rapid and unpredictable changes.

9. For the attaining sustainable agriculture

- By 2050, world agriculture will need to produce 60 per cent more food globally, and 100 per cent more in developing countries.
- Improving efficiency in the use of resources.
- Direct action to conserve, protect and enhance natural resources.
- Protect and improve rural livelihoods and social well-being.
- Good governance is essential for the sustainability of both natural and human systems.

10. Water and industry

- Three out of four of the jobs worldwide are water-dependent.
- Industry accounts for 20 per cent of water demand.
- Water is an inevitable factor that determines the quality of out puts of production.
- MNCs are ready to invest money in places where sufficient water resources are available.

11. Water and urbanization

- Urban areas have been recognized as engines of inclusive economic growth.
- The promise of jobs and prosperity, among other factors, pulls people from rural areas to urban cities.
- Half of the global population already lives in cities, and by 2050 two-thirds of the world's people are expected to live in urban areas.

12. Water and climate change

Sustainable freshwater resources management ensures water availability for the future. Population growth and increasing living standards mean increasing demand for water. Integrated Water Resources Management, a next step towards efficient, equitable and sustainable development and management of the world's limited water resources and for coping with conflicting demands.

13. Water scarcity or poor water management?

It is incorrect to lay the blame entirely on the poor or insufficient monsoon but the state and other stakeholders take the blame who has utterly failed to save the natural water resources. But the administration and other stakeholders have failed to preserve the rain water and nearly 90 per cent of the water let off to flow in to the sea. Encroachment over water bodies and water ways is also predominant in the state. People unfortunately saw land as a place to build buildings and not a place to preserve the water.

14. Conclusion

Long-term support to implement sustainable development and use of natural resources is needed instead of short-term support for project implementation. The implementation of international rules and legislation on shared rivers and river basins as proposed by the International Law Commission should be given high priority. Research and technological developments for the more efficient use of water are strongly affected by government policies and actions. Such actions should be supported and coordinated on an international level, of special relevance to water resources management today. Continuous efforts are required to increase the awareness of water resources problems in relation to sustainable development and to develop and promote integrated water resources management. It may be necessary to mount a strong lobbying effort to give the issues of water resources management and sustainable development a higher priority on the international environmental agenda.

15. Reference

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