

Let our activities be preceded by an environmental impact assessment to minimize the destruction to the environment and natural resources. The Convention on Environmental Impact Assessment in a Transboundary Context 1991 calls for the 'establishment of an environmental impact assessment procedure that permits public participation'.

The preamble to the seminal Stockholm Declaration of the UN conference on the Human Environment 1972 emphasizes that the environment is 'essential to the enjoyment of basic human rights—even the right to life itself', while Principle 1 states that 'Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being'. Article 24 of the African Charter of Human and Peoples' Rights 1981 provides that 'all people shall have the right to a general satisfactory environment favorable to their development' whilst Article 29 of the Convention on the Rights of the Child 1989 explicitly refers to the need for the education of the child to be directed *inter alia* to 'the development of respect for the natural environment'.

The final text of the Conference on Security and Co-operation in Europe (CSCE) meeting on the environment in Sofia in 1989 reaffirms the respect for the rights of individuals, groups and organizations concerned with the environment to express freely their views, to associate with others and assemble peacefully, to obtain and distribute relevant information and to participate in public debates on environmental issues.

"Although individual decisions may seem small in the face of global threats and trends, when billions of people join forces in common purpose, we can make a tremendous difference."

UN Secretary-General Ban Ki-Moon

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THE CONSERVATION OF OUR WETLANDS BECOMES AN EMERGENCY

NO WATER, NO LIFE

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With the collaboration of Cheikh Anta Diop Lodge (CADI). To carry out research extension, animation and development of African cultures in abid to promote and save Cameroonian and African Cultural Heritage *inter alia* exchange knowledge on African Cultural Values.

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WETLAND MANAGEMENT FOR WATER AND BIODIVERSITY CONSERVATION FOR SUSTAINABLE DEVELOPMENT

We have lost a huge amount of our wetlands and the related biological diversity. This major threat to the environment has serious impact on water reserve, water safety and water security, agricultural lands, water regimes, hydrological cycle, and local and global climate. If proficient and quick actions are not taken, wetland degradation will worsen the question of water scarcity.

Wetlands include areas where water covers the soil, or that the water table is present either at or near the surface of the soil throughout the year or for varying periods of time during the year. Wetland biotopes are characterized by permanent or intermittent waterloggings bearing species of plants and animals adapted to life on saturated soils. Few of these species of fauna and flora are amphibious. Wetlands include: freshwater marsh, which is a soft, wet, spongy ground of chiefly decayed or decaying vegetable matter; riparian of rivers, streams and lake such as fringe forests; vernal pool (pool which dries up during part of the year); wadis (intermittent stream); wet meadow; floodplain and mangrove swamp.

One of the major problems that we are currently facing is the drastic shortage of water reserves. This is likely to worsen water scarcity experienced in many areas. The main impetus of this increasing water crisis is the degradation of wetlands and deforestation. The major factors involved in wetland degradation are:

*Poor management policy for wetlands by governments and communities;

*Agricultural expansion and deforestation leading to the destruction of vegetated areas around wetlands;

*Introduction of improper alien species as Eucalyptus that demands too much water;

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*Urbanization going along with increased water demand, pollution and destruction of vegetation cover;

*Pollution from the agricultural sector (fertilizers and pesticides), other industries (hazardous chemicals and solid waste) and households (household waste that we throw in water) leading to eutrophication, disturbance of water flow, destruction of the wetland fauna and flora, and to the degradation of water quality;

*Demographic growth landing more pressure on water resources;

*Industrialization that increases demand for water;

*Mining (e.g. exploitation of sand and pebbles) that causes the destruction of the bearer ecosystems and causes pollution by trace metallic elements and siltation;

*Construction of dams that disturb the hydrological network, the water regime and the climate cycle;

*Drainage to convert land for agricultural activities and settlement;

*Most water companies are out for business and are less concerned with the sustainable management of water catchments.

The consequences related to the degradation of wetlands are enormous and we should all be aware of them. Below are the obvious ones:

- Exacerbation of water scarcity. This may lead to strife among communities and even States;
- Major threat to the sustainability of crop farming, fishery and forestry activities with exacerbation of poverty;
- Decreased wetland surface with loss of biodiversity of fauna and flora;
- Disturbance of the regimes of water courses, hydrological networks as well as water cycle

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that lead to changes in the local climate with potential global impacts.

WETLAND MANAGEMENT FOR THE CONSERVATION OF WATER AND BIODIVERSITY FOR SUSTAINABLE DEVELOPMENT: MEASURES AND STRATEGIES TO MITIGATE THE DEGRADATION OF WETLAND AND RELATED CONSEQUENCES.

ADDRESSING THE QUESTION OF WETLAND DEGRADATION IS A DIFFICULT BUT NOT AN IMPOSSIBLE TASK.

Here are some major actions that can be taken in order to curb the degradation of wetlands and enhance water saving and safety:

- Sensitizing and training the local communities so that they can take action in preserving their wetlands;
- Implementing projects for the conservation of wetlands following action plans based on Participatory Approach;
- Treating polluted water and using it for irrigation so that we increase water saving;
- Protecting vegetated-buffer-strips (not less than 15m width) along streams, river channels, around lakes, marshes and other wetlands to reduce evaporation and the abatement of water table. By acting as natural shades, these vegetated buffer strips equally act as bio-filters whereby they mitigate water pollution by bio-physico-chemical pollutants carried by runoffs;
- Suitable planning of wetland management in space and time taking into consideration the interdependence among environmental, cultural, social and economic factors;

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- Meteorological forecasting in agricultural activities to maximize the use of rain water;
- Cultivating more drought-resistant crops in arid areas to reduce the need for irrigation water;
- Reducing evaporation in tanks using silicone, clay, concrete, rubber or sand cover (water level below 30 cm);
- Applying sodium carbonate to disperse clay in clayed soil in order to increase the infiltration of water in the soil during rainy seasons and augment water storage in aquifers;
- Covering the soil with plant residues to reduce evaporation and make water available for the crops;
- Cultivating fodder plants with high protein content such as leguminous, so that with less biomass from the farm and less water used, we feed our animals better;
- Removing improper species as Eucalyptus around wetlands and replacing them with water-retaining-plant species as Raffia;
- Creating more wetland wild reserves to preserve their fauna and flora biological diversity;
- Treating wastewater before releasing them into runoffs;
- Rational use of water in households and industries;
- Proper management of dams to prevent water-related diseases like malaria and mitigate the impacts of dam construction ecosystems and hydrological networks;
- We should stop throwing waste in streams and other water resources.

We should understand that the more we shift our farms closer to the river banks, springs, or lakes and marshes, we expose the water table to evaporation which may cause rivers, springs, lakes and marshes to dry off. By leaving a vegetated buffer zone to protect the wetland, we will exploit it longer, view forever.

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