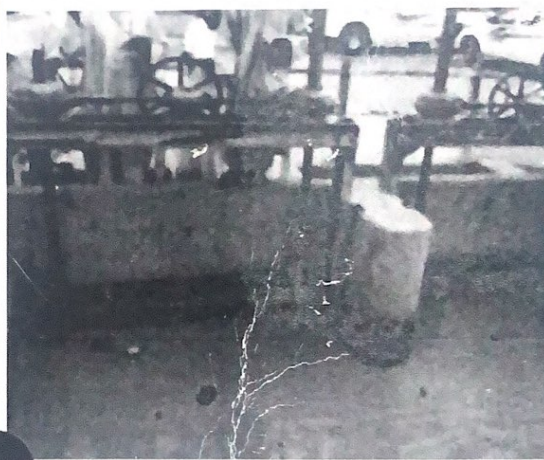


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3RD NATIONAL WATER CONFERENCE:

Water and Food Security: "Call for Solution"



Book of Reading: 3rd National Water Conference
Ilorin, Nigeria, 2012

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WATER SECURITY A NECESSITY FOR FOOD AVAILABILITY

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INTRODUCTION

"The issues surrounding water and food security are enormous as they are critical elements for human existence."¹

Water can be described as the clear colorless liquid, which is odorless and tasteless when pure and occurs as rain, snow and ice, forms rivers lakes and seas and is essential for life. However, naturally occurring water picks up color and taste from substances in its environment². Water is the most essential requirement for all living beings apart from air and it is impossible to live without it.

Water is used for domestic sanitation such as drinking, body metabolism, bathing, washing etc. In addition, water provides ecological sanitation benefits to the environment by cleansing dirt, recycling waste products, soil erosions, redistributing mineral resources through water flows, drainages, waterfalls etc. These balances eventually result in creating balances in eco systems and assisting living species to survive their environmental distortions³. Water is a universal resource which, because of its free occurrence in nature, is often taken for granted and abused, especially in third world nations where information is neither readily accessible, nor disseminated to society. Abundant as it may seem, water, in its clean state, is one of the rarest elements in the world. Like all scarce resources which have regulations guiding their exploitation, ownership, preservation, and sustenance, water, the world over, is protected by a body of laws, policies, and regulations in order to prevent abuse.⁴

Nigeria can be described as a blessed country especially with water. The country is divided into 8 hydrological areas drained mainly by the River Niger and River Benue. Nigeria has rivers and Lakes in the North e.g Kaduna and Zamfara river, in the South we have Anambra, Ogun, Osun rivers to mention a few. Looking at the availability of all these waters, I ask, "Is Nigeria a water Secure Country?"

WHAT IS WATER SECURITY?

According to GWP's global strategy 2009-2013 *"sustainable development will not be achieved without a water secure world. A water secure world integrates a concern for the intrinsic value of water with a concern for its use for human survival and well-being."*⁵

¹ Mrs. Sarah Ochekepe Minister for Water Resources in Nigeria. Statement available at <http://www.thetidenewsonline.com/2012/10/08/attaining-water-and-food-security-in-nigeria/>

² Microsoft® Encarta® 2009. © 1993-2008 Microsoft Corporation

³ http://www.martindale.com/natural-resources-law/article__240640.htm

⁴ Longe E.O., Omole D.O., Adewumi I.K. and Ogiye A.S.(2010) WATER RESOURCES USE, ABUSE AND REGULATIONS IN NIGERIA Journal of Sustainable Development in Africa. Clarion University of Pennsylvania, Clarion, Pennsylvania(Volume 12, No.2,) Also available at http://jsdafrica.com/Jsda/V12No2_Spring2010_B/PDF/Water%20Resources%20Use,%20Abuse,%20and%20Regulations%20in%20Nigeria%20%28Longe%29.pdf

⁵ <http://www.gwp.org/The-Challenge/What-is-water-security/>

Water security is the capacity of a population to ensure that they continue to have access to potable water. It can also be described as the level safety and security of water supply. Water security also means addressing environmental protection and the negative effects of poor management. In other words a water secure world is a world where every person has enough safe, affordable water to lead a clean, healthy and productive life. It is a world where communities are protected from floods, droughts, landslides, erosion and water-borne diseases. A water secure world means ending fragmented responsibility for water and integrating water resources management across all sectors – finance, planning, agriculture, energy, tourism, industry, education and health. A water secure world reduces poverty, advances education, and increases living standards. It is a world where there is an improved quality of life for all, especially for the most vulnerable—usually women and children—who benefit most from good water governance. A water secure world is a food secure world.

WHAT IS FOOD SECURITY?

One of the eight objectives of the Millennium Development Goal as set up by the United Nations is to "Eradicate extreme poverty and hunger. It is however impossible for people to have access to food without the availability of water. As a matter of fact, one third of the Millennium Development Goals depend on water. If there is water security to a great extent, then food security is achievable.

According to the World Food Summit of 1996, a nation can be described as food secure when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life. Furthermore, the UN Food and Agriculture organization (FAO) defines, food security as the physical and economic access to food that meets people's dietary needs as well as their preferences.

Food security is built on 3 pillars which are food availability, food accessibility and food use. These are further described as:

1. Food Availability: sufficient quantities of food available on a consistent basis
2. Food Access: having sufficient resources to obtain appropriate use based on knowledge of basic nutrition diet
3. Food Use: appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation.

Food security is a complex sustainable development issue as it is linked to health through malnutrition and also linked to environment and trade. Arguments have risen with respect to food security. some believe that there is enough food in the world to feed everyone adequately but that the problem is distribution, others say that future food needs cannot be met by current levels of production. What I believe is if priority is given to water, Nigeria is a great country and it can produce sufficient food for its citizens. I believe that what we do not have or cannot produce because of weather conditions, we can import. without water, there is a limit to what the farmlands can produce and with too much water there is also a limit to what the lands can yield. as a matter of fact too much water in the form of erosion and flooding destroys food and as such causes food insecurity. to be food secured in Nigeria, to attain or achieve the number one millennium development goal, Nigeria needs to first be water secured. Water and food to a great extent go hand in hand.

FOOD AND WATER INTERWOVEN AND INSEPERABLE

Water has a multidimensional relationship with the right to food: it is a liquid and a primary component of all foods. it is in fact necessary for the production and preparation of food.

According to UNICEF *Strategies in Water and Environmental Sanitation*⁶, "human health and wellbeing depends on a healthy environment including **clean water**, sanitary waste disposal

⁶ Available at www.unicef.org/programme/wes/pubs/sp/spen.pdf

and an **adequate supply of food**⁷. Both crops and animals need water for survival. It is so important that people can still survive longer with water than without food. Experts claim that while people can stay a long time without food, they would die after 3 and 14 days without water. However, they insist that food and water are essential for human survival. Too much water in the form of flooding can wash away many farms and destroy crops and cattle completely which invariably leads to food prices.

Insufficient water also can cause drought and famine in the world. It is obvious that irrigated agriculture is not enough to enhance food production for the ever growing population of the world. Thus, to prevent hunger and eradicate extreme poverty, and environmental sustainability which is another of the Millennium Development Goals, water must be accessible, sufficient and available to all sectors especially Agriculture for example for farming.

INTERNATIONAL AND NATIONAL WATER LAWS

*"...All peoples, whatever their stage of development and their social and economic conditions, have the right to have access to drinking water in quantities and a quality equal to their basic needs."*⁸

The 1948 universal declaration of human rights did not see water as a contentious issue and the first time, water was seen or accepted to be an issue was in 1979 when the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW) under article 14 stated that water should be made available to rural women.

In November 2002 the International Covenant on Social and Economic Rights which enshrines the protection of socioeconomic rights came up with General Comment No. 14. This Comment provides guidelines for states parties on the interpretation of the right to water under two articles of the International Covenant on Economic, Social and Cultural Rights (ICESCR) - Article 11 (the right to an adequate standard of living) and Article 12 (the right to health) which include potable water. The General Comment clarifies the normative content of the right to water by articulating the individual elements of the right, such as availability, quality and accessibility. It also outlines the associated state parties obligations and certain international obligations. These include obligations to:

- Respect the right to water by refraining from interfering directly or indirectly with the enjoyment of the right
- Protect the right to water by preventing third parties from interfering in any way with enjoyment of the right to water
- Fulfill the right to water by adopting the necessary measures directed towards the full realization of this right.

In Nigeria, there are quite a number of laws both at the Federal and state levels which makes pronouncements on the provisions and protection of water. Most of these laws prohibit pollution of water by noxious or harmful matters, by oil spillage etc.

⁷ Highlighted phrases mine (for emphasis)

⁸ The preamble to the Mar del Plata declaration of the 1977 United Nations Water Conference.

⁹ International Covenant on Social and Economic Rights (ICESCR) - is a multilateral treaty adopted by the United Nations General Assembly on the 16th of December 1966 and came into force from 3rd January 1976. Its parties are committed to working toward the granting of economic social and cultural rights to individuals including right to health, right to education and even the right to an adequate standard of living. As of July 2011, the Covenant had 160 parties.

The Water Resources Act [1993 nos 101] is an Act which is established to promote the optimum planning, development and use of the Nigeria's water resources and other matters connected therewith. This law vests the right to use and control all surface waters and groundwater and of all water in any watercourse affecting more than one state in the Federal Government, with provisions that any person may take water without charge for his domestic or livestock watering purposes (in any watercourse to which the public has free access).

The Federal Ministry of Water Resources is responsible for overall management of the nation's water resources. It has the duty of promoting the optimum planning, development and use of Nigeria's water resources and ensuring the coordination of all activities that may influence the quality, quantity, distribution, use and management of water resources. Also the ministry ensures the application of appropriate standards and techniques for the investigation, use, control, protection, management and administration of the nation's water resources. The ministry also works with the Nigerian Water Resources Institute as well as the Rivers Basins Authority as well as the private water sectors recently.

The National Water Resources Institute (NWRI) Act¹⁰, empowers the Institute to perform engineering research function related to such major water resources projects as may be required for flood control, river regulation, reclamation, drainage, irrigation, domestic and industrial water supply, sewage and sewage treatment. The institute is further charged with the performance of other functions related to planning of water resources management and river basin development. The River Basins Development authority Act establishes and regulates all river basin authorities in Nigeria. The functions of these Authorities include agriculture, irrigation, fisheries, forestry and veterinary institute. The Act also establishes the 12 river basin authorities some of which are Anambra- Imo River Basin Authority, Benin-Owena River Basin Authority, Chad Basin Authority.¹¹

The state governments through the enactments of water edicts and byelaws are responsible for potable water supply through the state water agencies which handle water use and management to serve individual sectors of the economy.

The local governments are in charge of provision of rural water supplies and sanitation facilities and the universally accepted principle is that all persons in that community have a right to use water passing through that particular community but that the quality of water must be preserved.

PROBLEMS OF WATER AND FOOD SECURITY

It is established that water and food are not only interlinked, they are also interwoven. What affects one negatively affects the other just as much. This would be addressed under 2 sub topics which are domestic and national.

Domestic Problems

Water is used domestically on a daily basis. No home can survive without access to water neither can any home be healthy without sufficient clean water. There are 2 major problems associated with the domestic use of water which are pollution and wastage. More often than not, clean water is used to bath, brush cook and flush. The usage of water for these chores or activities is usually done without recourse to its management. Another problem to water security is pollution. Domestic wastes from homes, especially in rural areas and urban slums, where in most cases in Nigeria, the small rivers close to people's homes are polluted by dumping wastes in them and excreting in them. This does not only leave the water stagnant which can cause malaria and all forms of water borne diseases, it also leaves the

¹⁰ Cap 284 LFN 1990. Section 2

¹¹ the others include: Cross-River River Basin Authority, Hadejia-Jamaare River Basin Authority, Lower Benue River Basin Authority, Upper Benue, Upper Niger River Basin Authority, Lower Niger River Basin Authority, Niger-Delta River Basin Authority, Ogun-Osun River Basin Authority, Sokoto-Rima River Basin Authority

air polluted and such environment is unhealthy. Inaccessibility and insufficiency of water needed for daily use is also a fundamental issue faced by people especially women and children who are the most affected.

National Problems

Food security in Nigeria is usually threatened by flooding and drought. Flooding is a situation that comes about when land that is usually dry is covered with water as a result of a river overflowing or as a result of heavy rainfall. Flood includes dam breaks which are usually believed to be "acts of God". This type of problem wrecks great havoc not only on food production by destruction of farmlands, drowning of cattle and poultry it also claims lives and properties running into millions of naira. Government and people living along riverbanks rarely take precautionary measures to mitigate the impact of the flooding rather they prefer reactionary methods as presently experienced in the recent massive flooding in many parts of the country. However, man also has a role he plays in contribution to flooding. The more waste product dumped into our rivers and streams does not only prepare for floods it encourages it. Also when rivers are not dredged it can help promote flooding.

OTHER PROBLEMS

There exists an uncoordinated outlook to water law management in the country. Under the present existing laws, different water agencies at the three levels of government pursue different goals and agenda leading to fragmentation of water resources development strategies.

The regulatory and monitoring of water law implementation are weak and poorly enforceable.

These laws are mostly rule-oriented instead of management-oriented thus negating the implementation of policies that will engender national integration and sustainable development. The major reason for this is due to the absence of an Integrated Water Resources Management (IWRM) thus different water stakeholders pursue different goals.

The absence of a well defined Public - Private Partnership, backed by enabling laws which encourages interested private water sector investors and interested communities as stakeholders to actively become involved in water supply and management to all and sundry thus bridging the water gap and future food challenges.

Several millions of Nigerians rely exclusively on surface water sources to meet their domestic needs.

Pollution discharge into these surface water by individuals and industries go on unmitigated, unregulated, and unpunished. The involvement of the scientific community in the regular calibration and monitoring of surface water quality as a tool for managing the surface and groundwater resources, among other things, would be an advantageous tool for curbing the pollution menace. Pollution is a bane for high water quality in Nigeria especially our waterways like streams, rivers, creeks and lagoons. The amount of waste and sewage deposited on a daily basis into our waterways through industrial and domestic activities is alarming and has caused water quality deterioration. These activities destroy aquatic life and reduce the suitability of other water usage like irrigation.

Other issues that affect water security negatively includes drought, shortage of experienced and qualified personnel, poor public awareness on water and food conservation methods and effects and environmental degradation for example erosion, deforestation.

SOLUTIONS AND RECOMMENDATIONS

There are 37 water corporation boards, 12 river basin authorities with several other water agencies. There is a need for collaboration in land and water resources management, with the amplified involvement of farmers in order to achieve food security. There is need for a proper synergy between the federal and state ministries of water resources and agriculture to boost the country's food security.

Also with all the water laws, rules and regulations in Nigeria, none is clearly known to encourage private sector participation. To enhance water security and food security, there is the need to promote private water sector.

The Ministry of Water Resources needs to harness the potential of the country irrigation facilities since they play a vital role in most irrigation schemes and water provisions.

There is the need for combined water security outfit in Nigeria that can be identified with disaster management so that disasters like floods, erosion and droughts can be properly managed.

A revisit of our water laws is also recommended. Some of these laws were made several years ago under the military government and, therefore, need to be reviewed to reflect current conditions under which they should be applied. There are several new international laws, conventions, treaties which makes the provision and availability of water a basic human right to all mankind. These international conventions should be domesticated into the gamut of Nigeria water laws.

Promoting water security in Nigeria is promoting food security, as water security is a necessity for food availability.

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