

Water Stress as a Threat to Human Security: An Overview

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Abstract

The security paradigm is constantly changing. The world is changing very fast and non-military issues are taking much more importance as compared to military and conventional race. Non-traditional security threats are the challenges to the survival and well-being of the individual such as climate change, food and water security. Water security has taken a central position in an international forum. Some major international issues such as population growth and pollution are altering the sharing of water reservoirs and political involvement over these resources is becoming a hot issue not only within states but also across borders. Water as a natural resource may contribute too many security risks and threats that may be the cause intensification of a dispute. Security is a multidimensional approach and focuses on the welfare and well-being of an individual. Improvement of policymaking in water management is also a very important factor for human security at the international level.

Keywords: Water, Human Security, Threat, Conflict, Challenges

Water: Threat to Human Security

Water is considered one of the hot issues in the modern era of human security. In the last few years, the meaning of security been changed. First; its focus was on military threats and conflicts but now it has extended to incorporate a broad scope of dangers to safety measures. However, water is set in more extensive meaning and works as a focal connection over the scope of security, having political, well-being, financial, nutrition, vigour, and ecological basis. (cf. Zeitoun, 2011). It is a diversified topic as well as an essential element for accomplishing the design of security, from a personal level to a global level. Human security can be guaranteed if individual protections are met to assure great well-being and prosperity, sufficient and safe food, a safe and secure atmosphere for safe employment and assurance, satisfaction and of basic needs and freedoms. It is vital for guaranteeing the protections and surety to a safe supply of water at the domestic or national level to the nonviolent distribution and the board of Tran's boundary assets as well as political limits. It depends on a person's perception and standard of prosperity; these are intensely attached to the person's requirements and the advantages it gives. Security of water can decrease the potential for clashes and pressures, adding to social up-gradation, and financial and ecological advantages for a bigger scope, just as to the development of states' and widespread commitments.

The idea of security was broadened during the Cold War by some scholars, among whom Bary Buzan is a prominent scholar who added new ideas and broadened the concept of security. Buzan tried to widen the idea to contain apprehensions in the non-military sphere in the book entitled *People, States and Fear* (Buzan 1983, 1991). However, the main concern of the argument is the quest for liberty. Buzan enlightens to the actions of human security are influenced by five main domains: military, financial, communal, political and environmental. Military security deals with dual-level interaction of the equipped capacity of a state. Security of politics relates to the structural constancy of countries, their governmental structure, and the values that maintain their legitimacy. Economic security depends on direct access to the markets, financial resources and different levels of economic welfare. Collective security involves the continuity of different modes of language, customs and traditions, spiritual norms and national identity. Environmental security discusses the uplifting of adjacent situations and the global environment as the fundamental supportive networks on whereupon all other human endeavours depend. While these five elements are firmly connected, each "characterizes a point of convergence inside the general security program, and a method for requesting needs" (Buzan: 18-19). Right now, efforts are being made to expand the extension and space of the idea of security to incorporate non-military threats in the lexicon of security.

Water has always been vital for the existence of human beings on earth. Ancient cultures like the Greeks were used to worship gods and these gods were thought to live in water and have command and control over it. Cities were built near water areas for easy access to water. Gathering places were around the wells which is perhaps a new trend for building fountains. Old civilizations such as Greek, Rome and Egypt exploit water resources and used different systems to access water resources.

Indus valley civilization started near the banks of the river Indus. In ancient India, people believed forests as 'Mothers' of rivers and worshipped forests and sources of water that belonged to them. In civilization, they built boats and watercraft. According to Archeologists, it was a great contribution and the dredged canal is their discovery. Water is very important for socioeconomic development, the production of food, energy security and the survival of human beings. Water is interlinked with the environment and society. Water cannot be separated from cleanliness or personal hygiene. Both are vital for the improvement of health, education and production and the up gradation of the economy for populations.

Research Objectives

- To understand the importance of water as an essential element
- To analyze the cause-and-effect relationship between water security and human security
- To suggest improved water policies for addressing the issue of hydro politics

Research Questions

- How does water become a human security threat?
- How do water and human security directly interlinked with each other?
- How do the states politicize the water problem and what is the way forward to resolve the water issue?

New Paradigm of Security

In the 21st century, when the security agenda is changing, 'security' has been discussed at different forums. Water has become an emerging challenge and national security threat as well as human security. Water issue forms a critical part and redefined the understanding of the security dilemma. Based on security, it alerts policymakers and decision-makers. Water as a natural resource is challenged and in the current era, it is considered a human security threat. Security of water suggests/ indicates easy access to safe water, agriculture, industrial and domestic use. Not only energy and food but also water has taken a key position in the security agenda and revisits policy based on planning in the long run. Nowadays, non-traditional security threats are taking more attention in the security agenda. Water is considered an existential threat and creates public awareness, political attention, policy and planning. However, it is a permanent threat that this issue would become part of political intentions, and a direct link with politics could be halted in a political context. Another problem of securitizing water contrary issues is that developed countries intervene in the matters of developing states. While one may have a concern about securitizing the water issue that has directly linked to human security. Numerous definitions of human security discuss providing basic human needs e.g. health, food and energy security which are the different elements to securitize human beings.

It is said that water could be a serious cause of clashes between the states in the next decade/ over the next ten years. Water could be a resource exploiter and danger in shared basins and could be used as a weapon or terrorist acts could be occurred and will also become a human security threat in developing states. The geopolitical balance of power could be affected through the water supply, and control over water reservoirs and upper riparian states could manipulate the interests of lower riparian states through the supply of water. Terrorists can target bridges and infrastructure related to water. The water crisis is a health issue, environmental, economic, political and industrial issue. Water-related issues are the main reason for diseases in backward areas and have become a problem for human security in developing countries. Women and children spend many hours accessing drinking water in developing countries. Increasing unrest and battle over water resources in the world is going to be an unresolved issue because it is not reducing the risk and tension with extreme water events.

United Nation's stance regarding Water Security

To interlink water with human security, we must understand different concepts. The concept was presented by United Nations Development Program, in 1994. This program conceptualizes the initiative of security. As this report points out, "human security means security from such lingering pressures as starvation, illness and suppression; and safety from unexpected and hurtful interruptions in the patterns of daily life- whether in homes, in jobs or groups" (UNDP 1994: 23).

This program adds a definition of human security and is divided into seven elements financial security (liberation from starvation); food security (right to use safe foodstuff); health security (safety from diseases and access to health facilities); environmental security (safety from hazards such as environmental contamination and degradation of the atmosphere); personal security (physical protection for instance war, attack); community security (survival of ethnic

clusters and defence from outside danger); and political security (full liberty of constitutional rights and liberation from dogmatic coercion). When we consider these agendas of security then we understand that there is no huge gap between rich and poor countries as at every stage domestic violence and torture are prohibited according to this notion of security. According to the United Nation Development Program, Commission tries its best to endorse the practical concept to prioritize human well-being. The commission's agenda is 'to protect the lives of all human beings to enhance the freedom of an individual. (Commission on Human Security 2003: 4). Commission's approach is 'people-centred and concentrates on external threats to secure individuals from a series of dangers. Though the military faces threats from external risks, it adds, "Protection of citizens from environmental pollution, transnational terrorism, massive movements of population and long-term conditions of oppression and deprivation". Actors that are engaged belong to states, national and international establishments, NGOs and civil society. States and societies are also involved in securing individuals that can directly cope with uncertain circumstances by searching and finding new solutions. Even though, at the end of the conflict times, brave masses and groups can do a healthy activity with miscellaneous tasks to reconstruct societies. As stated by the Commission, "Human security and state security are interdependent. Without Human security, state security cannot be achieved. Human security needs strong and stable institutions. However, state security is concise, human security is broad". (Commission on Human Security: 6). Nobody could reject the wide-ranging approach to safeguarding human security. Many of the issues are interconnected with developmental issues. This notion of security can contribute to the progress of individuals by serving to address issues of development like water. With time, the water demand is increasing, dropping level of groundwater, and surface water is going to be depleted and infrastructure going to be collapsed. The World Bank has a rough idea that it would get \$600 billion to upgrade the system of water sharing. (CAFRW 1997). When we see all of the features altogether, we realize that water is a vital element and a non-substitute resource on the Earth that varies across time and space and it is becoming scarce and degrading as the world population is increasing and considering water as a threat to the existence of human being. Freshwater is less than its demand and the global water crisis is becoming political tension in the world.

Causes of Water Scarcity

Water Pollution

Water is the most important component on earth and a vital element for all of the ofeatures on Earth. Water pollution is the addition of polluted bodies in water that is usually due to human activities. Water reservoirs include lakes, rivers, oceans and groundwater. Water pollution results when contaminants add to natural resources. These contaminants could be toxic chemicals or biological agents which exceed in the groundwater pollutes the water and pose serious threats to human security. Low water quality becomes the reason for water scarcity. Water pollution has environmental circumstances that make the water unhealthy or decrease the availability of water resources. Pollution has become the main reason for the threat to the reuse or availability of water. Humans and animals consume water that is considered safe and called potable also called drinking water. This water is usually used in drinking, cooking,

washing, and cultivation of food and for daily use. Nowadays bacteria and other polluted elements are affecting the quality of our drinking water. When contaminated bodies dissolve in water and become the degradation of water quality. This is not only disastrous for ecosystems but also dangerous for all water consumers.

Over-Population:

It is an undesirable condition where the number of people exceeds unwontedly and the natural place of inhabitants decreases. Several factors are included such as an increase in births with low mortality rate, fewer medical facilities, depletion of natural resources and increased migration. Our planet is facing several challenges, among them, the population is affecting ecological changes along with environmental degradation, and global warming and pollution are the main contributors to lower water quality. Over-population will place demands on land, earth and natural resources leading to extensive environmental problems in addition to affecting standards of living and impacting international economies. It also reduces the opportunities available for employment, and basic human needs like food, education, sanitation, medical facilities and a high lifestyle. In developing countries, overpopulation is posing an existential and financial threat.

Agriculture:

Water is vital for agriculture and the production of food and crops for the existence of human beings. Present and future generations depend on food and nutrition all over the world. Agriculture is also a sufferer and the main cause of water shortage and water pollution. Reasonable quality and quantity of water are required for irrigation systems and cultivation of crops as well as for livestock and fisheries. On the other hand, agriculture is the main reason for water pollution and the major user of water at the same time. Weak water policies and practices threaten the livelihoods and income generation that is dependent on agriculture. Moreover, variations in climate affect agriculture by increasing the demand for water, restrictive food production and lessening water supply where cultivation of crops have more advantage and is needed. Climate changes will be the reason for extreme weather, changing weather patterns and challenges for the agriculture sector.

Climate change:

Climate change also distracts the water cycle and planning of everyday life that is dependent on hydrological settings. Changing climate is an important factor that affects not only drinking water supply, hygiene, food and energy production but also the availability of water. Floods and droughts are also reflections of hot weather patterns. Due to hot weather, snow is melting on glaciers and changing patterns of rainfall are also the main reason for climate change. Contaminated water and water-related diseases are the reason for weak policies and poor water management. Conflicts and clashes are growing over shared water resources. Climate change is considered an added burden on the population. Water challenges are increasing with time. Human activities have affected climate changes that are damaging water policies and true utilization of this natural element is rare. Good policies and innovative technologies are required for obtaining, cleaning and distributing water. It requires the utilization of water more cautiously and professionally. Sanitation and access to safe drinking and clean water are

basic/fundamental human rights. The future of water could be secure if all individuals, nations, communities and states work together for the sake of proper distribution and utilization of water.

Effects of Water Scarcity

Hunger

Water is a crucial element for growing crops and the survival of livestock animals. Global use is estimated that 10% of water is consumed for domestic use while 70% of water is used for irrigation and agriculture purposes. As a result, farming and growing crops use much more amount of water as compared to household uses. Based on the non-availability of water, animals die and crops affect due to water shortage which always results in poverty and hunger as well as thirst in these water-stressed areas.

Health Issues

In many states, water shortage compels people to drink low-quality water that flows from streams, most of these are polluted. As a result, people are infected due with waterborne diseases that usually kill people. Water scarcity may also cause poor sewage system which becomes the cause of infectious diseases like Cholera and typhoid that is injurious to people. When water is scarce in public places, restaurants, hospitals and clinics for sanitation then the health of the common people is compromised and caused severe diseases.

Poverty

Better living standards and better economic growth depend on the good quality of water. All institutions including schools, restaurants, hospitals and working places need water for cleanliness and sanitation to stay safe and healthy to work properly. If we imagine that a working place or high-standard school remain without water even for a single day then what will be its situation it can be an economic loss too. For the attraction of visitors, hotels and plazas need to be kept clean. For the smooth working and progress of industries, agriculture dealings and viable businesses require a high amount of water. Without financial progress due to water scarcity, the poverty level gets higher and the low living standards of people put them under the poverty line/rate.

Ecosystem & Habitat Destruction

Habitat destruction is the procedure in which natural habitation is incapable to protect its inhabitant species. The organism that earlier occupied the place are moved or die due to ecological changes. Habitat is lost and debased when natural and manmade activities change this place so that fewer species can survive there, every species plays an important role in its habitation. Destruction of habitat is a threat to the world's plants and animals and it is happening at a high level. When there is a water shortage seen, then it shows natural habitats bear more as it becomes the reason for desertification, fewer plants, animals and loss of wildlife. Consequently, these environmental disasters become the reason for habitat loss and also turn into food shortages and low living standards. In many areas of the world, freshwater

lakes and resources of fresh drinking water are diminishing due to ecological changes. These changes are the main cause of water scarcity.

Disappearance of wetlands

Wetlands are a crucial part of our earth. Wetlands are natural filtration systems. Wave actions of shores are protected by wetlands and they also lessen the effect of floods, soak up pollutants and provide a better quality of water and work like a sponge. By doing this, wetlands keep water purified and filter it. They provide a safe environment for animals and plants. These lands accept water on stormy days and release water when the level of water becomes low and when it is needed. Consumption of more water is required in agriculture than in any other field. The disappearance of wetlands is due to hot weather; climate patterns are altering and causing water shortages. The disappearance of wetlands is going to be at an alarming rate.

Water: Cause of International Conflict

An increasing vantage point is described by Vice president of World Bank Ismail Serageldin, "The wars of the next century will be about water" (New York Times 10 August 1995). The main point of discussing this asset is that it would be the main reason for international conflict in near future and often tied up with environmental security, gaining importance both in academic and popular literature. Some writers have a stance that water and conflict have a natural relationship because competition for acquiring natural resources and access to fresh water become the source of political tension and even confrontation. (Westing, 1986). Others give examples of the Middle East; say that history is full of violent conflicts. (Butts, 1997). While on the other hand, some say that it is historic evidence that water has an old relationship with conflict and further predict that "The renewable resource of river water could be the cause of inter-state conflict".(Homer-Dixon 1994).

Water may be a hot issue and a requirement for assuring the existence of human beings from the national to international level. A variety of different securities should be taken to attain human security: a better opportunity for health for every human on an equal basis, provision of safe food should be assured; a healthy atmosphere means safe nutrition and fulfilment of basic human rights. It is needed to make certain water systems so that peaceful sharing of transboundary water could be assured at individual and community levels as well as political limitations. It also relies on different ways of provision of water to the individual. Water security will thus cut back the possibilities of threat and conflict on a political, social and economic level. If water security is addressed practically then it is the contribution to lessen water-related issues and assures to a safer future. But several world drivers are moving to water reservoirs, cumulative the threats and risks related to security. First, changing season patterns like river flows, temperature effects on soil moisture, snow covers, river levels and precipitation have a direct effect on water resources. Second, human activities influence increased demand for water like population, urbanization, migration and dynamic water cycle. Third, the growing demand for water in different sectors like food, energy, business and different surroundings can affect water series and accessibility of water. Finally, safe treatment of wastewater and re-use ought to be handled thus to forestall contamination and secure the standard of resources of water. Cross-sectorial plans are required to handle these problems

under human security. This type of nature means that it's essential to make sure that every sector's proper demands are often met in exceedingly means that may conjointly confirm essential components to securitize the human. Coordination in the decision-making process, enforceable water laws and official mechanism are required to confirm that water turns as a related issue to attain security which competes between areas for inadequate water reservoirs and is often adequately managed. UN Security Council includes the agenda of water security and also water security causes tensions and conflicts. Climate change has become another security threat on the forum of UN Security. (United Nations Department of Public Information, 2011). By adding up environmental changes to its program, Security Council will legally identify the effects of climate change on the water either as a tool or as a factor which contributes to relevant material. This information would recognize water's importance and find it as a security threat and trigger national and regional water disputes and conflicts, also water security could play a vital role in the maintenance of prosperity for a long time.

Transboundary Water Management and Water Security

Transboundary waters cause a serious challenge to water security. Wherever water organizations, like stream or river basins and development schemes, are combined across political limitations, water-linked issues are combined by the requirement to make due assistance and discussions between independent states, with its set of mixed and generally competitor intentions. Round the globe, there are around 276 transboundary turning points, passage the area of one hundred forty-five states and covering nearly 1/2 the earth's ground area (MacQuarrie and Wolf, 2013). Quite three hundred transboundary ground water-beds have additionally been known, mostly that are situated across 2 or more two states (Puri and Aureli, 2009). Transboundary water management (TWM) meets several divisions together with worldwide water law, management of different water resources and projection of human rights, peacekeeping, and international development. While dialogue and cooperation mean a lot of arising progress and neighbouring countries that share common basins and water extraction will result and have vital effects on their relations. (Wolf, 2007). These impacts will lead to watercourse division, unsettling the water systems and severely distressing groups of the lower part of the stream which will rely upon fisheries living. Regional cooperation could be achieved through the proper sharing of water when international instruments support it. Transboundary water sharing has been difficult throughout history but on the other hand, there are many examples showing that water sharing provided opportunities to many states for the up gradation of bilateral relations and help political understanding on diverse issues such as economic growth and advance projects. The Southern African Development Community (SADC) organizes the water-sharing process on 15 basins within Southern Africa. In Southeast Asia, the Mekong River Commission has a long time of collaboration and organization among the lower Mekong countries. In Europe, worse water quality and contamination encouraged a shift towards mutual assistance in the Danube River Basin (ICPDR, 2012). In Latin America, a project for hydroelectric development has been started based on mutual trust on the Paraná River between Brazil, Paraguay and Argentina. Worldwide watercourses, which are taken by a worldwide mechanism such as the 1997 UN Watercourses Convention and the 1992 UNECE Convention, can assist to solve the

severe crisis and problems which could result to threaten regional peace and stability. Non-state actors' role is turning into progressively necessary with the water-sharing process. Most of the actors like people living near border areas and water users have mostly been absent from water-sharing methods and processes. The expertise, information and experience of these actors will add acceptability to decision-making, and valued views of the potential effects on ecosystems and incomes. Their contribution is crucial to making sure of a joint mechanism of development between states. These systems of water governance gradually understand that the stakeholders must interact with each other. (Earle and Bazilli, 2013). Likewise, stakeholders of that area will have to play a very vital role in water distribution once established by their administrations, helpful in maintaining confidence in mental assistance and assuring the process for cooperation and collaboration. When institutions are founded, all problems must be addressed on every national and international level and a water legal mechanism is needed to be enforced. Whereas in the mechanism of water sharing policy and water accessibility, the cooperative governing bodies of the world's water course then do political borders have been overlooked across sectors. Given the actual picture of transboundary river water and their real weakness to corruption, manipulation and also the imminent effect of climate change awareness is required to make sure that these reservoirs are properly utilized and controlled. (Cooley and Gleick, 2011).

Aquatic Situation in Disaster Zones

Water shortage is dangerous for disaster zones and has negative impacts on these particular areas. These conflicts have a direct effect on the quality or quantity of water. Water security is challenged by disasters and conflicts and also compromised by the physical set-up that is needed to access safe drinking water; sanitation mal treatment, the system of drainage, water reservoirs and irrigation system. These disputes can disrupt the process directly or indirectly upon human activities wanted to maintain wastewater-related-up as well as communal or political development that keep water services active and available. (Donnelly et al., 2012). In these areas, unequal distribution of resources, stakeholder approach to water and services of sanitation may widen distrust, ferocity and conflict, thus escalating the security of water. Water and water-related services are at risk when it is delivered at the local and domestic level. Water shortage can lead to distrust and conflict within the country or among border inhabitants can lead to political insecurity. These disasters may have long-lasting effects on water resources within financial, political and ecological circumstances. Many people internationally are moved as a result of the dispute and water debacle that is creating political tensions. Conflicts and disasters can destroy the set-up and can severely impact the environmental and political conditions which can hinder the process of development of a country (Tana, 2012). Lack of communications, such as road and rail networks and nutrition systems, provoked by the weak governing body and institutional mechanisms, cause more critical situations and difficulties in running a smooth process in a state.

Improved Water Policies/ Governance and Water Security

The world faces real water management issues. Recent developments in policymaking and different approaches have been inadequate to deal with future water distribution challenges.

Water management, improved agricultural strategies and production of crops while maintaining water use, attaining energy goals, satisfying industrial water use and fulfilling developing modern water necessities are the key challenges that have much importance. These objectives can be accomplished while ensuring water quality and the biodiversity of essentially significant normal biological systems. We, on the whole, need to move in the direction of understanding this or other positive prospects must opt. We should discuss what prospects we may need, and afterwards characterize and execute measures to move us the exact way, toward those ideas. Something else, approaches will guide us to a future we know is impractical and mankind will face a lot of the most exceedingly terrible off. Water security depends on the best water policies and worldwide networks of water management, these are necessary to handle the water shortage in a good manner. Weak governmental policies, poor institutional mechanisms, corruption and ineffective accountability system hamper the way of development to accomplish water security. Governmental systems are essential for water security incorporating working limit, straightforwardness, investment, responsibility, and access to a lawful plan of action. Such destinations are best accomplished through conventional understandings and procedures at the domestic and global levels. High-quality water governance depends on well-planned organizations to enforce and uphold institutions and implementation of mechanisms are helpful for the fulfilment of determining collective, financial and natural objectives related to human security. The administration communicated the neighborhood's hierarchical structures and devised them by neighborhoods, and limits and concurred residential and universal policy objectives. Administration structures must consider power gatherings and adjacent plans when planning frameworks scheduled for improving water security productively and economically. For instance, a survey of national water administration frameworks shows the variability of water allotment components, for example, those grants allowed by experienced experts. (Le Quesne et al., 2007).

Water policies are essential and water administration is a continuous process which needs continued modification as it reacts to new difficulties and issues. Maintaining the security of water requires administrative hold, limits regarding the change, versatile administration setup, new types of connections, and different models equipped for incorporating complicated characteristics and social measurements. Various universal instruments have been a work in progress throughout the previous two decades. In light of rising dangers and patterns, for example, environmental change and reckless financial and populace development, various areas are as of now modernizing and improving water management and water frameworks. For instance, in Latin American and Caribbean states might've been a developing modernization of the region's lawful structures, which, much of the time, were out of date (Hantke-Domas, 2011).

Investment is the basic element for acceptable water administration, as the private sector is ready to assume a vital role right now. The worldwide business has just placed water on its plan as important and the significance of water provisions and sound living standards and it is the need to oversee business dangers. In a subsequent stage, water as a commercial component ought to receive a progressively reliable and straightforward way to deal with the improvement and implementation of current legislation. Such acknowledgement has just started by the foundation of the UN (United Nations Global Compact, 2012), which organizes administration along with community advancement and development. Collaboration of all sectors with experts

on capacity building, information technology, and innovation move will also fortify high limits in administration.

Solutions to Water scarcity

Groundwater recharge

The level of groundwater is declining all over the world due to exceeding the limit of water withdrawals. One way of controlling this decreasing water amount and maintaining the water levels is by using artificial recharge of groundwater. Artificial recharge is an act to increase the amount of water that joins aquifers through human-controlled activities e.g. groundwater could be recharged by redirecting water course through canals, ponds and artificial lakes. If there is seen water scarcity then it is obvious that dependence on the groundwater the availability of groundwater will be very short. In this situation, when there is plenty of rainfall there is sufficient rainwater could be used for building projects other than all-purpose. The existing quality of water could be better utilized by recharging groundwater and in this way; the water situation could be handled properly. Rainfall savage from different sources of an organization may also be efficiently utilized for refreshing -groundwater. Many ways are adopted for recharging groundwater and utilizing rainwater. A lot of consciousness is required so that water is not polluted in the course of recharge.

Re-use of water and better Water treatment

Water reuse or recycling of water from various sources then treats and reuses for different purposes. Reuse of water is the procedure of converting wastewater into utilization for other purposes. Wastewater can be reused for different purposes e.g. irrigation, toilet flushing, agriculture, environmental restitution and groundwater recharge. This water recycling becomes the reason for saving finance and resources. Existing water reuse enhances the supply of water and sustainability. Better water treatment can be divided into planned and unplanned water uses. Planned water reuses refer to the designed systems having a goal-oriented of the beneficial reusing of water in various domains. Unplanned water reuse varies from situation to situation. A common example of it is that communities use water from rivers or lakes that live near the bank of the river which is already used from the upper riparian. After treatment, water recycling is the option to enhance or increase water assets so that supply of water could be constituted.

Maintenance of water quality

Water quality is considered the chemical, biological and physical features of water. It is the measurement of the condition of water which is relevant to one or more species. It is used by the set of rules and regulations that must be achieved through proper treatment of water and can easily be assessed. The most common parameters are used to maintain human standards of drinking water that relate to human health and standards of drinking water. This water quality must be suitable for human consumption and all domestic uses. Political and scientific institutions make rules and regulations and take decisions that what will be the better use of water. Environmental scientists draw their attention to understanding how these systems function, which in turn identify that how these contaminants work. Policymakers introduce

laws for the best use and utilization of water. In this way, water quality could be maintained through proper checks and balances.

Water storage

Storage of water is the process of storing water in a particular area for a specific time. Water storage is a term referring to potable and non-potable water. Water storage could be natural or artificial. In developing and developed countries found in climate, there is a dire need to store drinking water during dry seasons. Water storage depends on the atmosphere, the surface of the earth and groundwater for various reasons, artificial water storage is built up for storing water that is called reservoirs. Agriculture is also dependent on hot water and stored water can be used in times of hot weather water is short and can be utilized through storing in artificial ponds, reservoirs and tanks. Water is stored for later use in a natural way e.g. groundwater, soil water and wetlands.

Conclusion

A new security paradigm has been introduced in the 21st century. A political and military issue has transformed with new security agenda. Natural resources safety is assured with water security, peace and stability of a nation. Decisions taken by United Nations in all the sessions are interlinked with human security and water. In past, people prefer to live near water and some of the inhabitants of old civilizations worship water as they think that gods or goddesses live in water and have control over it. In the current era, the interdependence of natural resources such as water is a serious human security threat in this changing situation, water is becoming short and the crisis of food, energy and water is taking a central position in the new security paradigm at the international level. Variations in the environment are also another factor of water scarcity. Water management not only at the domestic level but also as the borders are emerging as g another security threat in disaster-prone prone areas, unequal distribution of resources is a tough task to approach water and awful services of sanitation may widen distrust, ferocity and conflict, thus escalating the hazards to the security of water. Unequal distribution of water and water shortage has gained importance on international forums for the um and the UN many times declared water as a vital natural resource for the survival of an individual. Climate change's impact on water has become the reason for scarcity all over the world as well as other factors i.e. water pollution, and over-overpopulation agriculture have contributed to the crisis. Developed states want to control and co over water resources and use water as a tool in political and strategic forums. Many scientists predicted that water is becoming a scarce element and decision-making and plans for future water management are the nare need of the hour for human security.

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