



Global Water Institute

WATER FOR CONFLICT PREVENTION

SYMPOSIUM

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By Valerie Ndaruzaniye

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This paper invites its readers to analyze the linkages between **two issues** including *access to water*, on one hand, and *conflict prevention through the reintegration of demobilized forces*, on the other hand. A common solution could be shared to solve the two issues, by motivating demobilized forces to work in water-related programs for environmental security and populations' stability, thereby facilitating their reintegration while they earn an income.

WATER FOR THE PREVENTION OF CONFLICTS

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I. EXECUTIVE SUMMARY

In the 1990s, political pundits and policymakers around the world pledged to deal with the Security–Development Nexus Program Implementation, but they failed to find a coherent approach to properly reintegrate demobilized forces, thereby preventing conflict recidivism. They also failed to establish adequate mechanisms for water supply to all communities, particularly in Sub-Saharan Africa. Page | 4

The tractability of the problems is posited by the consistently changing environment caused by global warming at the source of water scarcity on one hand; and by population growth at the source of social conflicts and political struggles in managing the most impossible fair distribution of natural resources including water on the other hand. All the above makes it difficult for street–level implementers to respond to the dual challenges including effective planning for and management of water-related programs and reintegration of demobilized forces.

The seven principles in appendix A are meant to help the General Secretary of the GWI Coordinating Bureau lead efficiently and effectively his or her team. Guidance on how the GWI strategies should be implemented to reintegrate demobilized forces using water-related programs is explicitly detailed in appendix B.

In a nutshell, GWI recommends AU and African heads of governments to enact national environmental legislation that takes into account the inter-linkages between programs for water-related resources and the reintegration of demobilized forces for the purpose of environmental security, which in turn, lead to the prevention of conflicts.

One major promise of the GWI proposed strategy is that the establishment of the Implementing Monitoring Bureau, managed by a person at the ambassadorial ranking level is needed for the effectiveness and efficiency in the reintegration of former combatants through water programs.

The views expressed in this paper are those of the author and do not necessarily reflect views of any of other members or partners of GWI.

II. GLOSSARY OF TERMS USED IN THIS PAPER

Conflict: Conflict is a dispute or incompatibility caused by the actual or perceived opposition of needs, values and interests. Conflicts refers to any struggles that involve disputes and violent fighting by military forces again opposing militia.

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DDR: Disarmament Demobilization, Reintegration and Reinsertion (DDR) programs entail a complex series of activities which involve several actors and that take into account the implications of several simultaneous processes undergoing in post-conflict settings.

Demobilization: Demobilization is the legal process through which combatants acquire civilian status. Demobilization and reintegration support to demobilized forces are complex and politically sensitive processes. For a successful implementation, these two portions of DDR require to be carefully planned by taking into consideration the contextual situation and political implications of the peace process.

Economic Support: Economic support to demobilized forces includes but is not limited to: promotion of employment; continued education; training and self-employment; business skills improvement and target; etc.

Environmental Security: Environmental security refers to the area of research and practice that address the linkages among the environment, natural resources, conflict and peacebuilding.

Human Security: is a paradigm for understanding global vulnerability and individuals' susceptibility. Human security holds that a population-centered view of security is essential for national, regional and global stability.

Peacebuilding: Peacebuilding comprises the identification and support of measures needed for transformation toward more sustainable, peaceful relationships and structures of governance to avoid conflict recidivism. Four dimensions of peacebuilding include: socioeconomic development, good governance, reform of justice and security institutions, and the culture of justice, trust and reconciliation. Relevant actors in a conflict resolution are involved in marshalling resources, advising adversaries and proposing integrated strategies for post-conflict peacebuilding and recovery where appropriate by highlighting any gaps that threaten to undermine peace.

Reintegration: The reintegration of demobilized forces is the process by which former fighters acquire civilian status and gain sustainable employment that generates income. According to the Integrated DDR standards (IDDR), "reintegration" is, particularly, a social and economic process with an open time frame which takes place in communities at the local level. It is part of the general development of a country and a national responsibility and often necessitates long-term external assistance."¹

Safe drinking water supply and sanitation: are the most essential components for a healthy and prosperous life.

Security: “State or national security” is defined as the requirement to maintain the survival of the nation-state through the use of economic, military and political power and the exercise of diplomacy.

Reintegration Strategy: A process by which support is given to demobilized forces for their socio-economic reintegration as they return to the community of their choice to resume their civilian lives.

Reintegration support: refers to financial or in-kind support provided with demobilized forces after they have resettled in their chosen community

Social Reintegration: the process of providing demobilized forces with special activities by local community leaders and non-governmental organizations (NGOs).

Water: Water is defined as a natural resource, commonly known as a commodity necessary for sustaining human life.

Water stress: Water stressed is when consumption exceeds 10 per cent of supply.

III. INTRODUCTION

Based on the Global Water Institute (GWI) program assessment in 2008-2009, this paper suggests policy makers to demystify policy enigma surrounding the Environmental Security–Development Nexus and try new simplified approaches using the unique GWI concept to tackle the deep rooted issue of successful reintegration of demobilized forces, thereby preventing conflicts.

This paper has been prepared for the Symposium: “Water for Conflict Prevention”, organized by GWI with the kind support of the African Union (AU). The paper provides the reader with a background of the new concept proposed by GWI. The why and how the concept should be implemented to prevent conflict recidivism, is explicitly detailed in appendix B.

The seven principles in appendix A are meant to help the General Secretary of Implementing Monitoring Bureau lead his or her team efficiently and effectively.

Some of the paper’s contents are based on the author’s professional experiences; her leadership in public and recreational health, environmental health and human security; and her involvement in work related to poverty eradication and conflict prevention policymaking.

The rest of the paper’s contents is based on the author’s assessment on the ground in Burundi, ongoing GWI research, global policies undertaken by the different institutional stakeholders on programs related to the ecosystem; safe drinking water and sanitation; the prevention of conflicts; the reintegration of demobilized forces; and socio economic development in Sub-Saharan Africa.

Specific resolutions and commitments of the African Union, the European Union, the United Nations, the World Bank, and other major institutions are used in this paper to remind their initiators about objectives to which they committed themselves to achieve, but failed to fulfill on time as planned. The paper, then, makes a desperate call for more pragmatic efforts rather than holding Summits with impressive speeches. It suggests the implementation of an effective new strategy that could help overcome weaknesses and counter potential intractable events during the course of policy implementation regarding the reintegration of demobilized forces through water– related programs.

The paper provides its readers with a background detail at the source of the GWI added value and how this innovative idea can help solve two problems related to both environmental security and social conflicts due to water scarcity; and inadequate reintegration of demobilized forces.

It is hoped that the suggested recommendations in this paper and those resulting from the Symposium organized by GWI will be utilized to establish a bureau for coordinating African and international efforts geared at effectively securing the environment using water–related programs for the reintegration of demobilized forces.

THE SCOPE OF THE PAPER

The proposed GWI strategy wants policymakers to look down at deep–rooted problems that include solving the issue of inadequately reintegrated demobilized forces by working with them in the course of water policy implementation.

The paper spells out essential thematic reasoning to assertively make a case for the urgent need for the establishment of an Implementation Monitoring Bureau, with or without the AU, in charge of coordinating programs for the reintegration of former combatants through water–related programs.

These themes include analysis of the following:

- A.** Major world conferences on socioeconomic development, water and sanitation
- B.** The emerging environmental threats
- C.** The African Union and United Nations commitments on security, water and sanitation
- D.** Water for the prevention of conflicts
- E.** The GWI overall strategy : water for all by demobilized forces

The African region has been chosen due to the gravity of incessant social conflicts, the acute water stress on the continent and the entrenched poverty in comparison with the rest of the world.

I. ABOUT THE CONCEPT OF GWI

Global Water Institute (GWI) proposes a new concept to secure the environment and stabilize populations by using water-related programs to reintegrate demobilized forces. The GWI concept was created based on the belief that a common solution to solving the issues of *access to water* by all communities and *sustainable reintegration of demobilized forces* is possible, and can lead to long lasting peace and effective conflict prevention and sustainable development.

The concept is also geared towards assisting the planning and coordination efforts of public and private institutions, local communities and civil societies, in water-related programs and in the reintegration of demobilized forces. Further, this concept is meant to help local and international policy makers and practitioners to conceptualize and prioritize policy responses to the prevention of social conflicts in Sub-Saharan post-conflict countries.

The concept is useful in identifying not only shortcomings and gaps in the reintegration of demobilized forces, but also in helping sharpen their capabilities in programs related to water resources and environmental protection and security.

The GWI concept is not a military plan with a checklist of mandatory political activities. Rather, it suggests bringing both civilians and former military officers and ex-combatants a starting point for considering what needs to be done in water-related programs and the reintegration of demobilized individuals to ensure the populations' stability, and security of the natural resources which they all ought to share, thereby preventing conflicts.

GWI is only committed to working in the phase of reintegration which is the longest and most difficult part of the full process of the Disarmament, Demobilization and Reintegration (DDR).

For the GWI added value to be implemented as a Global Policy, policymakers have to agree that the global interdependence is an obvious fact, and they must be supportive of sustaining environmental security and national, regional and global populations' stability enabling a scalable economic development.

Policy leaders and government heads shall agree that such a global policy will be effective only if it is equipped with mechanisms for counteracting shortcomings in DDR, particularly, during the phase of the reintegration of demobilized forces.

Mechanisms of the Global Policy proposed by GWI include seven public administrative principles for the Implementing Bureau and the Implementing strategies.² These mechanisms will require that political hurdles be removed in order for the policy implementation to proceed.

PART I

A. MAJOR WORLD CONFERENCES ON SOCIOECONOMIC DEVELOPMENT, WATER AND SANITATION

Conflict prevention and sustainable and equitable development are mutually reinforcing activities. An investment in national and international efforts for conflict prevention must be seen as a simultaneous investment in sustainable development, since the latter can best take place in an environment of sustainable peace. Kofi Annan, 2002.

In the 1990s, political pundits and policymakers around the world pledged to deal with the Security-Development Nexus Program Implementation, but they failed to think of a coherent approach that could have helped to properly reintegrate demobilized forces, thereby preventing conflict recidivism, particularly in Africa. The most recent case is Sudan, whose environment deterioration due to a civil war is alarming.³ Global water policymakers also failed to establish adequate mechanisms for water supply to all Sub-Saharan communities. Yet, Africa's incessant conflicts continue to be a challenge hindering efforts to meet the Millennium Development Goals in Sub-Saharan Africa.

A remarkable change has, however, been observed in the nature of international discussions on the nexus existing between environmental security and the development as several important resolutions linking natural resources, development and armed conflicts, have been adopted in the last two decades.

The work of the *Brundtland Commission*,⁴ the *1992 Earth Summit in Brazil*, and the extensive lead-up to the subsequent United Nations (UN), AU and other international institutions' discussions, have all elevated the debate on the security-development nexus to its highest level. Through these global meetings, participants argue that national, regional and global peace cannot be achieved without development, and nor is development possible without security.⁵

Referring to the definition of "environmental security" provided in the Glossary on page five, it becomes clear that amongst other natural resources in the ecosystem, "water" is the essence at the source of other natural lives that depend on water on Earth. Consequently, among other naturally given resources, water is categorized as the most *supreme nexus* between development and environmental security. The above-mentioned statement invites, then, readers of this paper to question whether policy leaders and organizers of the conferences and summits cited herein realized that their common denominator is *water* for sustainable economic development and conflict prevention.

Some of the significant summits include *the Rio Declaration on environment and development*;⁶ the African Union's General Assembly Resolution on water and sanitation, during the AU's eleventh ordinary session of the Conference held from 30 June to 1 July 2008, in Sharm El-Sheikh, Egypt;⁷ the UN Resolution 1809;⁸ the

Report of the High Level Panel on Threats, Challenges and Change, *A more secure world: Our shared responsibility*, the report of the Millennium Project, *Investing in Development: A practical plan to achieve the millennium goals*; the United Nations (UN) Secretary General's report of March 2005, In *Larger Freedom: towards development, security and human rights for all*; the UN General Assembly President's Draft Outcome Document for the Millennium Plus 5 Summit in September 2005;⁹ The Second Water Decade: *Water for Life – 2005-2015*;¹⁰ and the *Decade for the Promotion of a Culture of Peace and Non-violence for the Children of the World (2001-2010)*.¹¹ Some of the above Summits are further detailed later on in this paper.

The critical role of peace consolidation and environmental security for sustainable development has vigorously been emphasized in the Rio Declaration, as it calls for states to “respect international law providing protection for the environment in time of armed conflict and cooperate in its further development, as necessary.”¹² During the same Summit, governments' heads acknowledged the interdependence and indivisibility of peace, environmental protection and development.

In each of the aforementioned meetings, participants agreed that political will is the key essential in environmental security for sustainable development to be achievable. They also acknowledged that the inclusion of civil societies in decision-making for policies related to environmental program implementation is relevant, given the scope and urgency of environmental threats. Yet, in all the Resolutions they made, nowhere is it stipulated how the inclusion of demobilized forces in water policies, particularly in post-conflict countries, could greatly contribute to environmental security, thereby stabilizing societies and preventing environmental threats such as water scarcity. In the following, a summary is provided on the Second Water Decade; the Decade for a Culture and Peace... and Conferences on Water and Development.

Decade of Water for Life ¹³

The Second Water Decade: “Water for Life – 2005-2015,” began on World Water Day, March 22, 2005, in accordance with a unanimous resolution by the UN General Assembly dated December 23, 2003. The goal of this decade is to highlight water-related issues, especially emphasizing women as managers of water to help to achieve internationally agreed water-related goals, and to halve by 2015 the proportion of people who are unable to reach or afford safe drinking water and who do not have access to basic sanitation.

Decade for a Culture of Peace and Non-violence for the Children of the World¹⁴

The UN General Assembly declared on November 10, 1998, the International Decade for a Culture of Peace and Non-Violence for the Children of the World—the decade is at its end. Governments of the World have agreed to reduce the number of people without drinking water and sanitation by half by 2015.

Conferences on Water and Development¹⁵

Three World Conferences that agreed to the same language include: the United Nations' World Conference of 2000 which developed the Millennium Development Goals (MDG);¹⁶ the Third UN Conference on Environment in Johannesburg in 2002; and the UN General Assembly which approved the second Water Decade in 2003, *Water for life*.

The 2000 United Nations Millennium Declaration on the MDGs included a section on Africa's development needs, wherein Member States pledged to assist African Governments in their struggle for lasting peace, poverty eradication and sustainable development. Still, almost at the end of the first decade of the Second Millennium, Africa has not seen much improvement in conflict preventions.

These international Conferences are deliberately pointed out because they fully or half failed to achieve their objectives and goals. The questions generated are therefore: Who is to blame or shall be brought to court? What court can obligate them to do the right thing to achieve quality results before the end of the MDGs' mandate or the Decade of Water for Life or the Decade for a Culture of Peace and Non-Violence?

GWI advises policy makers to reflect on approaches which include demobilized forces in water-related programs because they are one first step towards protecting the environment and stabilizing populations.

Diverse actions by individual, communities and institutions operating in programs related to water and the reintegration of demobilized forces, at all levels, need to be collectively combined and utilized as the primary vehicle of change in the prevention of conflicts.

PART II

B. THE EMERGING ENVIRONMENTAL THREATS

Rapid environmental change is synonymous with environmental threats at the source of social conflicts. Threats to the environment represent public or natural resource problems, and most of the time, countries which experience civil wars end up with their environments fully damaged by combatants. Sudan, Sierra Leone, the Congo, Central African Republic, Mozambique, the Democratic Republic of Congo and Liberia are a few examples. Africa's governments have preeminent roles to play in the environmental policymaking arena.

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Since 1992, governments all over the world have struggled to redesign and implement environmental policies for the twenty-first century. In the same vein, initiatives have been contributing to the improvement of safe drinking water and water preservation, for the purpose of promoting health and eradicating poverty. Hence, major institutions, non-governmental organizations, individuals and private actors have done much to protect and secure environment quality, but quality results can hardly be seen.

In terms of water programs, a couple of specific examples include the Water Council program set up by UNICEF and the WHO and the consortium groups such as the Millennium Water Alliance under which more than 20 NGOs operate.

In terms of peace building, the European Peacebuilding Liaison Office can be cited as a great source that brings together over twenty civil societies' international programs. Task forces such as those scheduled for years long operations by the International Center for Strategic Studies in Washington–District of Columbia that bring together civilian and military staff from several independent public and private organization, are also great sources of information on individual and institutional endeavors striving to deal with environmental issues that encompass water, agriculture, forestation, bio-mass energy, ecosystem activities, etc.

The scope and urgency of environmental security, especially in Sub-Saharan post-conflict countries, continues to escape policymakers. Such a failure may be dependent on the fact that policymakers and governments have not thought of linking marginalized individuals. Indeed, some individuals in this group including demobilized forces are mentally prepared to destabilize communities and render the environment unlivable, were their basic needs unfulfilled.

NATURAL RESOURCES: A SOURCE OF CONFLICT

In the last two decades, the exploitation of natural resources has been at the source of at least 18 violent conflicts worldwide. Recent research asserts that in the last 60 years, 40% of all intrastate conflicts were linked to natural resources.¹⁷ Conflicts like those of Darfur and the Middle East are very much linked to controlling scarce resources including water and fertile land.

POPULATION GROWTH: A SOURCE OF CONFLICTS

A century earlier, the cup was full. Today the same cup of water is half-full for the North and half-empty for the South. In the twentieth century the world population tripled, at the same time and the shortage of safe drinking water became a crisis as its need multiplied six-fold.

In Africa, the population grew from 469 million to 798 million between 1980-2000, thereby increasing food crisis, water stress, arable land as well as other material needs considered as fundamental for human survival and economic development. This has significant impact not only on populations' health, but also on their stability and security.

The intellectual human-being who is normally proactive in planning for strategic perspectives has, this time, missed foreseeing how the rising global population could be at the source of all other problems the world is facing today. Furthermore, strategic planners could not envisage the probability of the side effect of climate change on water accessibility, food security and prevalence of diseases related to water pollution. They also failed to measure how unfair distribution of scarce natural resources could be at the source of the social conflicts the world is facing, watching on televisions or sharing on various media such as twitter.com.

More importantly, political and policy leaders never thought of concentrating on finding solutions for vulnerable populations such as ex-combatants, who, were they unsatisfied with their reinsertion, can serve themselves using guns and other unorthodox methods to satisfy their needs, thereby jeopardizing stability of peaceful citizens.

ACCESS TO ADEQUATE WATER SUPPLIES: A SOURCE OF CONFLICTS

Conflict is most likely to occur over water when disputes involve access to water of adequate quantity and quality. Even when water supplies are not severely limited, allocation of water among different users and uses (agriculture and urban residents, for example) can be highly contested. Degraded water quality, which can pose serious threats to health and aggravated water scarcity, is also a source of potentially violent disputes. When water supplies for broadly irrigated regions decline either in terms of quantity or quality, those declines can spur migrations that could politically destabilize the receiving cities and/or neighboring countries.

WATER, LIVELIHOOD LOSS, AND CIVIL CONFLICTS

The importance of water in sustaining human livelihoods can indirectly link it to conflict. The pressure placed on the environment due to a growing population can be exacerbated by the lack of alternative livelihoods. Water is a basic resource for agriculture, which is traditionally the largest source of livelihoods. If this livelihood is no longer available, people are often forced to search for job opportunities in the cities or turn to other, often illicit, ways to make a living.

Displacement or Migration which is induced by lack of water, sudden droughts and floods, infrastructure construction (dams), pollution disasters, or livelihood loss, can produce tensions between local and incoming communities, especially when it increases pressure on already scarce resources. Further, poverty due to the loss of livelihood has often been identified as a common denominator of the causes of conflict in most of the civil wars that emerged in sub-Saharan Africa, South Asia, and Latin America during the last decade.

GLOBAL WARMING: A SOURCE OF MIGRATION

It is predicted that global warming will leave millions of people without safe drinking water, irrigation and power. While today some regions of the planet are hit by droughts, others are experiencing a wetter climate. Different and unusual climates force populations to migrate and adapt. The poorest on the planet will be the most affected by the disaster of climate change. A growing stack of studies continue to reach the same already known conclusion: global warming is threatening the water supply, thereby exacerbating water conflicts.

Even when natural resources become scarce because of the population growth, benefits from natural resources have to be shared equally for civilians to cohabitate peacefully. This is because when environmental degradation occurs as a consequence of human exploitation, serious social conflicts are likely to resume.¹⁸

SOUTH-NORTH CLIMATE MIGRATION: A SOURCE OF GLOBAL INSECURITY

High Demand for the Global Environmental Security is an effective response to the growing shortages of safe drinking water and degrading quality of water and sanitation. The lack of basic water-related services in the developing world does not leave Western countries unaffected. The lack of access to water by poor populations increases insecurity not only for the low-income nations in the South, but also for the industrialized nations through people migration from South to North in search for better living conditions.

As populations migrate in search of wet water lands, not only do they increasingly contribute to the degradation of the environment by polluting water and cutting wood for cooking their meager meals, but human health, security and stability are also jeopardized.

Environmental security is the fundamental key element leading to sustainable economic development. The reverse is also true. The stability of population depends on both environmental security and a nation's development status. In low-income nations, both development and environmental security depend on the availability of natural resources, good governance, human rights and the rule of law.

- Emerging threats require policymakers to reflect on the capitalization of the potential of environmental resources such as water to contribute to the populations' stability, peace consolidation and conflict prevention at the national, regional and international level.
- While every nation needs to use water and other natural resources to secure the environment, nations coming out of conflicts need to put more effort into reintegrating demobilized forces by including them in professional programs related to natural resources which are becoming a real threat to the population's stability.
- Protecting the inter-regional environment is largely beyond the capacities of individual states. The actions of North and South need to be coordinated.
- Post-conflict governments in the South have the responsibility of facilitating public participation in decision-making in planning for programs which combine the management of water resources and the reintegration of demobilized forces

Emerging environmental threats caused by global warming and the never-ending conflicts on the African continent require creative new efforts to improve the coordinated performance of all governments and stakeholders operating in fields related to water resources, environmental security.

Using backward mapping can assist policymakers in reflecting on the next two fundamental questions before crafting implementing guidelines :

1. What is the major environmental threat today from which a social conflict may result?
2. What category of marginalized people in a given society is capable of revolting using guns?

To counter the issue, previous global strategies that have proven to be unsuccessful in Sub-Saharan Africa should be revised.¹⁹ A new plan of action tailored for Africa needs to be refined. This plan shall have a global picture of specific objectives and goals that take into account *water access and sanitation* and effective *integration of demobilized forces*. Such objectives shall be measurably achievable both in the short and long terms.

Given that a common strategy may be difficult to reach in some contextual situations, implementing managers can use incremental ideas which can be just as effective in the process.

- ***Is there any institution out there that combines water-related programs and the reintegration of demobilized forces to prevent conflicts?***

A number of public and private organizations have invested much time and effort in diversified thoughts and actions intended to consolidate peace, human and environmental security in post-conflict countries. Although most stakeholders acknowledge that the unequal distribution of natural resources, such as water, can trigger social conflicts, few institutions to date consider using these resources as a driving tool to prevent conflicts and develop sustainable economy. Even fewer organizations see the urgent need for using “water,” which is becoming an acute issue on the African continent, particularly in post-conflict countries, for the reintegration of demobilized forces..

A holistic approach linking water and sustainable integration of demobilized forces is needed to better ensure effective environmental security and human stability for a scalable economic development.

- ***Is international law for environmental protection really doing what it is supposed to do in times of armed conflict?***

Is the international law of environmental protection effective enough to obligate fighters do the right thing in times of war? Most often forests are the places where insurgent groups base themselves and hide from central government authorities. Darfur militias in El Fasher in North use scorched earth tactics that destroy forests and result in deforestation, thereby exacerbating drought and extreme famine and forcing populations to internal displacement or migrate across Sudanese frontiers.²⁰ Hundreds of thousands of innocent civilians have succumbed to this hardship. The initiators are rarely punished for wrongdoing due to the lack of court transparency, corruption and threats.

- ***Protecting Africa’s forests***

For more than a decade after the assassination in 1993 of Melchior Ndadaye, the first president democratically elected in Burundi, Kibira and Ruvubu National Parks were used as sanctuaries and entry points for guerrillas fighting against government troops. Kibira in particular has been damaged as the forest became an operational area for both government troops and militia. Civilians and foreign international humanitarians alike have been ambushed and killed in the same area.²¹

Forests need protection because they are the place where people turn to in times of crisis. The Eastern-central part of Africa including Rwanda, The Democratic Republic of Congo and Uganda, provide good examples with a number of lessons learned on the use of their natural resources. For instance, the Virunga Volcanoes

region is exceptionally rich in species diversity, including the rare and endangered mountain gorilla. The region has dramatically been damaged. In 1994, about 850,000 refugees were living around Virunga National Park. Up to 40,000 people daily entered the park, taking out between 410 and 770 tons of in a desperate search for food and firewood. These activities contributed greatly to deforesting some 300 sq km of the park. One might wonder what opponent fighters do once the war is over. Do they return to their business as usual?²²

In times of conflicts there are two groups of fighters. In one group there are government soldiers. In the other group are militias. Once the war ceased, members of the former group return to their caserns and continue their routinely public duties. Members of the latter group, however, are often left alone without an income.

The reintegration of demobilized forces is not always an easy task for a low-income nation to handle “alone.” Even when it succeeds, but with support from international experts, donors and civil societies, demobilized forces are hardly satisfied with reinsertion means they receive from the government. As a result, they serve themselves by attacking small shops with handguns, they rape women and girls and kill even when the attacked person is surrounded. After all, most of them only know how to use gun. In fact they continue their life as if the conflict was still on, but this time at a smaller scale.

In Burundi for instance, local communities in two north-western provinces, Bubanza and Cibitoke, associate handguns’ attacks, assassins and cattle stealing during the night, with delinquent ex-combatants. This region bordering with the eastern part of the Democratic Republic of Congo and the South of Rwanda is weakened by incessant displacement of Congolese fleeing the never-ending conflict in the DRC.

While conducting the first assessment on the Burundian ground in summer 2008, Ndaruzaniye “saw a fast evolving picture whose full effects are absolutely related to both the lack of environmental security and the contemporary human dilemma known as global warming. In the meantime, the media continued to report on abused women by their attackers. Persistent handgun’ attacks in different communities were reported almost every day, especially in the North Provinces, Bubanza and Cibitoke.”²³

Has anyone been seriously punished for damaging the environment of Burundi of Sudan, Liberia, Mozambique and today the East of the Democratic Republic of Congo, etc?

Policymakers need to invest more effort in capacity building to reconstruct and sustain ever lasting peace in post-conflict countries. To do this they are ought to ensure giving priority to vulnerable former fighters who are capable of returning back to war.

GWI suggests to policymakers and implementing entities, in different structures and sub-subsystems related to policies in water, conflict preventions and peacebuilding, to unify their fragmented efforts and synergize their energy. This strategy can help monitor and evaluate the efficiency and effectiveness of short-terms objectives and goals.

Specifically, GWI suggests the creation of a general secretariat office that follows a *bounded rationality model*, to enable principal actors and interest groups to fully contribute individual effort while working under the same unit as opposed to operating from the four continents. This strategy can eliminate redundancy and consequently, implementation processes can be accelerated given that street-level managers, middle and executive managers have more opportunities for recap.

Within this *process of satisficing*, policymakers and implementers can gauge different options before deciding which one seems to fit the expected outcomes in water policymaking that integrates demobilized forces with the ultimate aim of securing the environment.²⁴

PART III

C. THE AFRICAN UNION AND UNITED NATIONS COMMITMENTS ON SECURITY, WATER AND SANITATION

Security Initiatives for the African Continent²⁵

On April 16, 2008, the United Nations Security Council adopted the UN Resolution 1809, which recognizes the importance of strengthening the capacity of regional and sub-regional organizations in conflict prevention and crisis management, and in post-conflict stabilization. Through this Resolution, the Security Council welcomes efforts of the African Union (AU) used to settle conflicts on the African Continent and expresses its support for the peace initiatives conducted by the AU and through sub-regional organizations.

Sharm El-Sheikh African leaders' Commitments on water and sanitation's goals in Africa

During the African Union's eleventh ordinary session of the Conference held from 30 June to 1 July 2008, in Sharm El-Sheikh, Egypt, Heads of States and Government of the African Union (AU) recognized that water must remain a key to sustainable development in Africa, and that water supply and sanitation are prerequisites for Africa's human capital development. They reaffirmed their commitments to the African Water Vision 2025, the Sirte Declaration on Agriculture and Water in Africa; the Declaration on Climate Change in Africa; and the Millennium Development Goal (MDG) on water supply and sanitation. They also agreed to promote effective engagement of African civil society and public participation in water and sanitation activities and programs.²⁶

The table below shows the defined and shared African Water Vision and water supply and sanitation targets at the World Water Forum in the Hague in 2000. This Vision initiated by New Partnership for Africa's Development (NEPAD), calls for a new way of thinking about water, its value and a new form of regional cooperation for poverty alleviation and environmental sustainability.

Box 1: The Africa Water Vision for 2025: targets for urgent water need

By 2015

- Reduce by 75 per cent the proportion of people without access to safe and adequate water supply
- Reduce by 70 per cent the proportion of people without access to safe and adequate sanitation
- Increase by 10 per cent water productivity of rain-fed agriculture and irrigation
- Increase the area of irrigated land by 25 per cent
- Realized 10 per cent of the development potential for agriculture, hydropower, industry, tourism and transportation
- Implement measures in all countries to ensure the allocation of sufficient water for environmental sustainability
- Implement measures in all countries to conserve and restore watershed ecosystems

By 2025

- Reduce by 95 per cent the proportion of people without access to safe and adequate water supply
- Reduce by 95 per cent the proportion of people without access to safe and adequate sanitation
- Increase by 60 per cent water productivity of rain-fed agriculture and irrigation
- Increase the area of irrigated land by 100 per cent
- Realized 25 per cent of the development potential for agriculture, hydropower, industry, tourism and transportation
- Implement measures in all river basins to ensure the allocation of sufficient water for environmental sustainability
- Implement measures in all river basins to conserve and restore watershed ecosystems

Source 1. ECA and others 2000

Source 2. UNEP. Africa Environment Outlook 2. 2006

PART IV

D. WATER FOR THE PREVENTION OF CONFLICTS

“Fierce competition for fresh water may well become a source of conflict and wars in the future.” Kofi Annan, March 2001

“But the water problems of our world need not be only a cause of tension; they can also be a catalyst for cooperation...If we work together, a secure and sustainable water future can be ours.” Kofi Annan, February 2002

All over the world, water is fundamental to our lives. Water is intrinsically linked to environmental security, human stability, and large scale socio-economic development. The absence of safe water for drinking, for agriculture to feed the rising global population, and for environmental sustainability has far-reaching ramifications on other aspects of life, not least of which is population stability. In short, water-related issues carry significant environmental, societal, and economic burdens.

Global warming poses a substantial threat to the world’s water supply and has contributed to water stress, drought, desertification, and hunger. Its effects are already felt worldwide, but developing countries are the hardest hit. Some of the

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challenges these countries face involve rapid population growth and migration from neighboring countries due to internal or inter-regional conflict. These burdens further increase the potential for conflicts within and between states.

Throughout the world, internal and inter-regional conflicts have erupted and could erupt again intensively as the increasing water scarcity raises the stakes. Though globally important, people living in Africa can be the first to define “water” as one of the most strategically imperative issue of the continental time that could lead to conflicts. Page | 22

For countries in post–conflict in Africa, it is another story, because they are at risk of relapse into protracted conflicts because of water scarcity. Indeed, almost at the end of the first decade of the Second Millennium, the Sub-Saharan region has not seen much improvement in conflict prevention. Thus, peace consolidation in conflict weakened countries is at stake and can be alleviated with effective implementation of water-related programs. This leads us to the next topic: “The blue gold” titled as such to deliberately express its relevance in the human contemporary epoch.

THE BLUE GOLD

Combined efforts of the World Health Organization (WHO) and UNICEF including other international organizations have contributed to global awareness of the need for improvement of water and sanitation around the world. The establishment of various international policies to resolve the issue of water and national institutions has been strengthened to tackle the issue.

Despite the 800 million people who benefited from improved water supply and around 750 million others who had sanitation services ameliorated in the 1990s, an estimated 1.1 billion people were without access to safe drinking water, and about 2.4 billion still had no access to any form of improved sanitation or hygiene.²⁷ Today the situation has not changed.

Each year, five million people, essentially children under 5, are victims of illnesses directly linked to unsafe drinking water. Although the problem is global in scope, it is particularly acute in sub-Saharan Africa where 50% of the population does not have cleaned water and 70% of people lack access to improved sanitation. The situation is much worse in rural areas, where coverage is only 47%, compared with 85% coverage in urban areas²⁸.

Recognizing that water is a key sector on the agenda of world development, the United Nations declared the time-frame 1981 to 1990 as a Decade for International Drinking Water Supply and Sanitation. The decade reached its end without fulfilling the universal goal of access to safe drinking water and sanitation by all.²⁹ Once again, population growth, funding limitations, inadequate operation and maintenance, and continuation of a traditional, “business as usual” approach are cited, among others, as the main reasons causing the decade’s goal to be unreachable.³⁰ The question is then: For how long the usual business can go on without facing social conflict?

In two successive years, 2001 and 2002, Kofi Annan, former UN General Secretary acknowledged two opposing facts regarding water. In his statement, he acknowledged that while water can become a source of conflict and wars in the future, world leaders could use water as a catalyst for cooperation and prevention of conflicts.

Knowing that water scarcity and lack of access to safe drinking water all perpetuate cycles of poverty and contributes to global instability, tackling this issue requires global policy makers to help address gaps in responding to the African water crisis.

WATER, A PRECIOUS ECONOMIC ASSET

The question of the water supply is becoming more and more important. A country which lacks water is a country which cannot feed its population, nor develop. The consumption of water by inhabitants is now considered to be an indicator of the

economic development of a country. According to a United Nations' study, water can even become, in the next 50 years, a good more precious than petrol. This says all about the importance of this resource which we already call "the blue gold".

Having access to water has, thus, become a powerful economic asset on the planetary extension ladder which could become, in the coming century, one of the primary causes of international conflicts. More than 40% of the world's population is established in the 250 cross border river basins of the globe. In other words, all these populations find themselves obliged to share their water resources with a neighboring country. Page | 24

However, recurring interstate conflicts have already taken place, and the mechanisms for the prevention of these conflicts will be useful. In countries where water has been given priority on the national stage and adequate resources are provided to implement water-related programs, such as in South Africa, greater improvements in service delivery are observed.³¹

OVERALL PEACE FOR DEVELOPMENT WITH WOMEN'S PARTICIPATION

Throughout this paper, it is mentioned a number of times how water is fundamental to human life. It follows that peace is a prerequisite for human development, which in turn, depends on effective management of the environment.

This is a challenge for Sub-Saharan African governments to achieve national and regional goals related to peace. These major initiatives difficult to achieve include the 2002 NEPAD; the 2000 MDGs; the Resolution 1809; the Second Water Decade: Water for Life – 2005-2015;³² and those of Decade for the Promotion of a Culture of Peace and Non-violence for the Children of the World (2001-2010).³³ The latter suggests eight action fields among which are included: 1) *Sustainable economic and social development*; 2) *Equality between women and men*; and 3) *International peace and security*.

Three Pillars. GWI asserts that the above three fields are essentials in peacemaking and are pillars of sustainable economic development. At the source of security, there is environmental security for the protection of natural resources on which all human-beings rely on for their survival.

Role of Women. Women play a major role in maintaining a good balance of peace in their families and communities. Policies on water and peace would be incomplete without women's inclusion in decision-making. In the early seventies, *John McDonald*, former United States Ambassador to the UN, made a trip to India for the first time and was mesmerized to learn how much time women spent fetching water. He said to *Ndaruzaniye* how once back in his UN office in New York, his mind became preoccupied by issue of water. When he suggested that the UN adoption to a global program to help women worldwide, his colleagues laughed at him.³⁴

Since then however, water resolutions have been adopted and local and international institutions have initiated global water programs. These include, UN–Water; the African Water Facilities; EU Water, UNDP Water, UNICEF—Water, WHO Water, to cite a few. The first and second water decades followed the suite. Particularly, the Second Water Decade: “Water for Life – 2005-2015,” which began on World Water Day, March 22, 2005, puts emphasis on ensuring women’s participation. Since the adoption second water Decade, there has been consistency in the literature and practices insisting that women are better positioned to play the prominent role of managing water resources.

Research says women in Sub-Saharan Africa spend *40 billion hours* every year collecting water. The problem of fetching water by women and youth is even more severe in post-conflict countries where insecurity reigns due to the delinquency of some marginalized groups, including demobilized individuals.

For effective implementation of strategies in respect to GWI added value, GWI recommends to the AU and NEPAD the following:

The AU and its global partners shall support GWI in taking action in the following themes:

1. A gender action plan which will include campaigns for the promotion of the role of women in water resource management, including demobilized women;
2. Establishment of a fund to support the development of educational program in water, sanitation and hygiene in rural communities; and
3. Creation of safety net mechanisms linked to the environmental protection and human security that are set forth to assist demobilized forces and the communities in which they live. These mechanisms call upon the GWI added value.

OVERALL PEACE FOR DEVELOPMENT WITH DEMOBILIZED FORCES

Socioeconomic reintegration of demobilized forces in Sub-Saharan Africa is a real challenge. Although programs for disarmament, demobilization and reintegration (DDR) of demobilized forces are strategically planned by international and local institutions, programs on the ground tend to be more difficult to achieve. The reintegration phase is known to be the most difficult part in the process of reinserting demobilized forces. For this reason, GWI suggests, in Appendix B, to utilize its framework for implementation strategies. The following are resources on best practice.

The EU concept for support to disarmament, demobilization and reintegration (DDR) was approved by the European Commission on 14 December and by the European Union on 11 December 2006.^{1 2} Its added value brings together a wide range of guidance encompassing security, stability, development, democratic governance and the promotion of human rights.

In 2005, the UN established [DDR international standards](#) a useful tool for the conception, planning, implementation, assessment, and funding of DDR programs undertaken in the sub-Saharan post-conflict countries.

The Stockholm Initiative on DDR (SIDDR) was conducted as an international working process that took a year. The purpose was to enhance the international community's understanding of DDR and post-conflict processes for management of arms and armies. The final report was launched in New York and presented to the Secretary General of the United Nations. SIDDR was convened by the Swedish Ministry of Foreign Affairs in November 2004.³⁵

The Transitional Demobilization and Reintegration Program (TDRP), which replaced the Multi-country Demobilization and Reintegration Program (MDRP) is another good source on international best practice include the Multi-Country. The MDRP operated from 2002 to 2009. It has a great array of information. Its operations covered seven countries including Angola, Burundi, CAR, DRC, Republic of Congo, Rwanda and Uganda. Its mission was to improve security in the Great Lakes region. Accordingly, it was considered to be the largest DDR program worldwide.³⁶

The establishment of “the Africa-European Union Strategic Partnership,” a Joint Strategy and the First Action Plan for the period 2008 to 2010,³ officially launched in 2008, is another step towards addressing this need for consolidating effort leading to overall peace and sustainable economic development

¹ . EU Concept for support to disarmament, Demobilization and Reintegration (DDR). 2006.

² . EU and DDR: Supporting security and Development. Expert seminar, Brussels July 2006. Seminar Report.

³ . The African-European Union Strategic Partnership. European Communities. June 2008. Also available at <http://www.europa.eu>. Belgium

DDR Program: A Case of Burundi

The program of adult demobilization in Burundi consists of two parts. During the first phase, ex-combatants receive reinsertion payments, right after they are disarmed and demobilized. The amount they receive depends on their rank. More than 600,000 Burundian francs (FBU) are paid to those with the rank of corporal. FBU 566,000 is the minimum one can receive. The payment is set in 4 cash instalments over 10 months. After that, the demobilized individual receives reintegration assistance in-kind through training, equipment, and other inputs to support the development of a livelihood within a community of his or her choice. Those who are creative and can begin entrepreneurial projects, they receive in-kind support, but also sometimes financial support is provided to them for an income generating activity for a value of 600,000 FBU. Training is provided by accredited educational and training institutions and support to develop income generating opportunities is provided through NGOs subcontracted by the government.

Information gathered in 2008 by Valerie Ndaruzaniye through face to face and direct interviews with the staff of the Ministry of Defence, Executive Direction for Ex-Combatants, one former UNICEF employee and two ex-combatants).

More substantial research is required to test the results' validity on a larger scale.

WATER MANAGEMENT FOR CONFLICT PREVENTION: A POLITICAL WILL

Water management is highly complex and extremely political. In most cases, it is not the lack of water that leads to conflict, but the mismanagement. A number of reasons exist to explain why water resources are mismanaged. This includes the lack of adequate infrastructure and human capital in the fields related to water management, inadequate administrative capacity and overlapping functions due to fragmented institutional structures, lack of transparency and jurisdictional ambiguity.

Strong institutions capable of balancing competing interests over water allocation and managing water scarcity tend to be quasi-inexistent, particularly in fragile post-conflict states. A reliable database, including meteorological, hydrological, environmental surveillance and socioeconomic data, is a fundamental tool for deliberate and farsighted management of water resources. Environmental surveillance and data collection for the provision of reliable information require high technology such as imagery satellites. Yet, such logistics are not always available in low income countries. Further, disparities among riparian's capacity to generate, interpret, and legitimize data can lead to mistrust and thus hinder cooperative action. The case of the Nile River is a good example in this line.

Water management is also characterized by overlapping and competing responsibilities among government bodies in many countries. The lack of a coherent policy is at the source of disaggregated decision-making which often produces divergent management approaches that serve contradictory objectives and lead to competing claims from different sectors, be they public, private or both.

In countries where there is no formal system of water-use permits, or where enforcement and monitoring are inadequate, competing claims are more likely to contribute to disputes or social conflicts. Political will and ensuring priorities in the sectors of water and reintegration of demobilized forces in post-conflict countries are key ingredients in progress towards sustainable economic development.

To prevent conflicts over water, management decisions should be formulated with full participation by all different local communities and water users, so that local rights and practices are taken into consideration. Controversies, suspicions and revolts are prevented when the management of water resources is transparent enough and water allocations are not diverting public resources for private interest and water use rights are transparently assigned to avoid suspicion of corruption.

WHY SHOULD THE AFRICAN UNION AND AFRICAN GOVERNMENTS BE INVOLVED?

“All States and all people shall cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and meet the needs of the majority of the people of the world.”

(Principle 5 of the Rio Declaration on environment and development, 1992).

In July 2001, the thirty-seventh Assembly of Heads of State and Government of the Organization of African Unity formally adopted NEPAD, a program of the AU whose the goal is to centre on African ownership and to reflect on the African leaders' common vision and shared commitment to eradicating poverty and to placing their countries, both individually and collectively, towards sustainable economic growth. NEPAD establishes the conditions for sustainable development by ensuring peace and security, building democracy and good governance; engendering policy reforms and increased investments in priority sectors; and mobilizing resources for implementation.

Principles 2 to 26 of the Rio Declaration on environment and development articulate the importance of combining individuals and states' efforts to eradicate poverty and equitably meet current and future generations' developmental and environmental needs.

GWI stresses that it is time to make the above shared commitment real, by putting priority on water management by demobilized forces. Such a priority shall be seen as the foundation for progress in all other domains of environmental sustainability and societal stability leading to sustainable development.

MANAGING COORDINATION AND MOBILIZING RESOURCES

In general coordination, management and mobilizing funds are cross-cutting functions that are critical for the successful implementation of the coherence of the post-conflict reconstruction. These are sub-systems that require alignment because they are inter-linked and interdependent. There is no one single sub-system that can reach targeted results on its own without the implication of the other dimensions in addressing water needs and reintegration related needs for former combatants.

Laying the foundation for social justice in terms of fair distribution of water and aiding demobilized forces to return to their original communities must be a concerted function involving different policymakers and practitioners. The success of each individual program within the alignment depends on the coordination put in place.

Coordination succeeds if its strategies are clear enough to determine the goal and objectives, and the strategic plan. They must also show the division of roles and responsibilities and the process used in mobilizing funds.

GWI wants to be part of such a framework. Its mandate, roles and activities shall be synchronized with the various stakeholders working with the AU and African Governments in the post-conflict reconstruction on the African continent.

PART V

E. THE GWI OVERALL STRATEGY: WATER FOR ALL BY DEMOBILIZED FORCES

The protection of the environment and its security cannot be achieved without including demobilized forces in water—related programs to make water accessible to all the segments of a given population. Access to water by all, means a water supply to households and public places, adequate sanitation and better hygiene, etc., on one hand. On the other hand, human stability and security can only be acquired if quality programs tailored for social and economic reintegration of ex-combatants are given high priority on the agenda of national, regional and international policy makers.

GWI's suggested strategy is to exploit the enormous potential of demobilized forces who had made war, and learned strategies, which justifies their determination with much courage. That is a proof of their ability to obey, to work in teams, and acquire training within a new strategic professional orientation.

GWI proposes to re-channel this potential force for development of water programs and protection of the environment, thereby appreciating what this particular group has as intrinsic resources.

GWI suggests the establishment of a new plan for the prevention of conflicts with a global picture of what objectives and goals that take both into account *water access and sanitation* and effective *integration of demobilized forces* can be measurably achievable both in the short term and long term, respectively. Both issues regarding water access water and social and economic reintegration of demobilized forces could, thereby, find a common response.

The next diagram shows GWI's concept, an added value proposal to the African Union and African Government heads, and to the international community policy leaders.

Global Water Institute (GWI) proposes a new concept to secure the environment and stabilize populations by using water-related programs to reintegrate demobilized forces. The GWI concept was created based on the belief that a common solution to solving the issues of *access to water* by all communities and *sustainable reintegration of demobilized forces* is possible, and can lead to long lasting peace and effective conflict prevention and sustainable development.

The concept is also geared towards assisting the planning and coordination efforts of public and private institutions, local communities and civil societies, in water-related programs and in the reintegration of demobilized forces. Further, this concept is meant to help local and international policy makers and practitioners to conceptualize and prioritize policy responses to the prevention of social conflicts in Sub-Saharan post-conflict countries.

The concept is useful in identifying not only shortcomings and gaps in the reintegration of demobilized forces, but also in helping sharpen their capabilities in programs related to water resources and environmental protection and security.

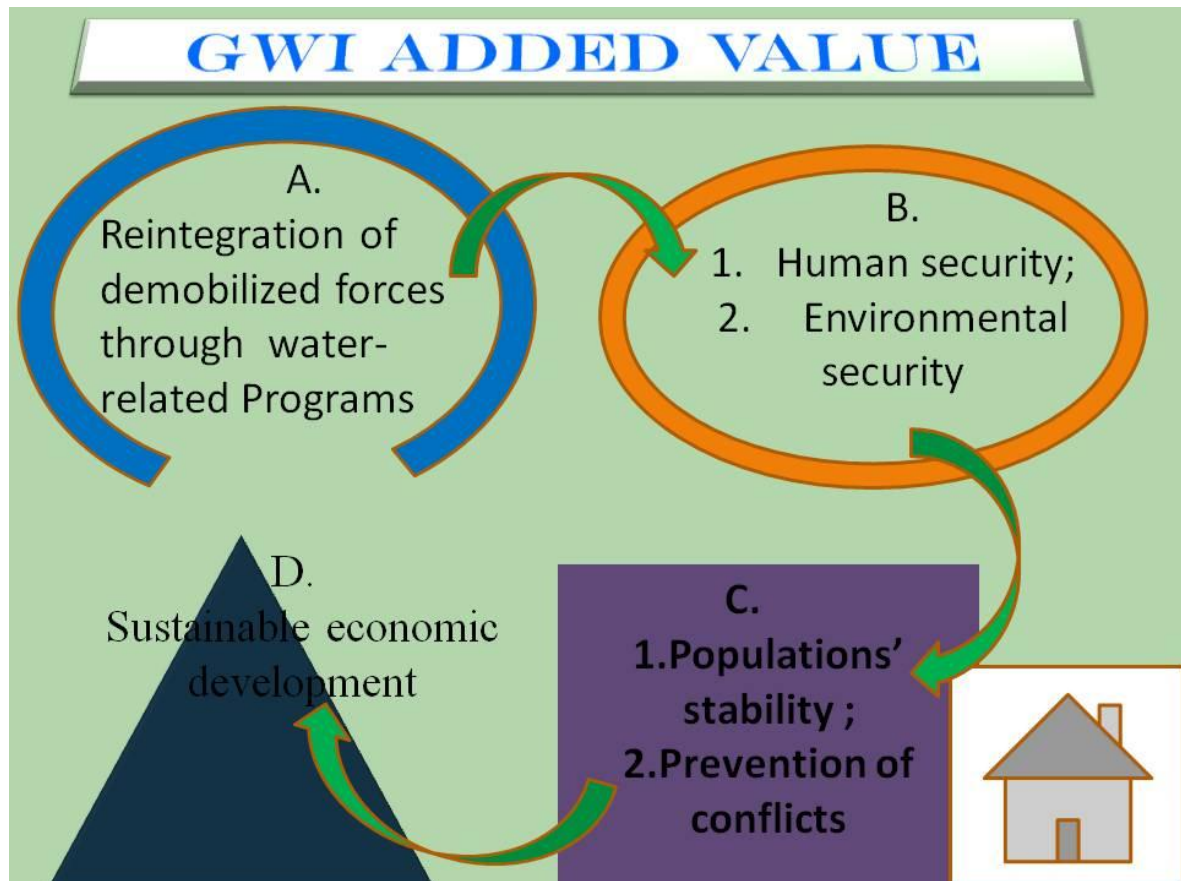
The GWI concept is not a military plan with a checklist of mandatory political activities. Rather, it suggests bringing both civilians and former military officers and ex-combatants a starting point for considering what needs to be done in water-related programs and the reintegration of demobilized individuals to ensure the populations' stability, and security of the natural resources which they all ought to share, thereby preventing conflicts.

GWI is only committed to working in the phase of reintegration which is the longest and most difficult part of the full process of the Disarmament, Demobilization and Reintegration (DDR).

For the GWI added value to be implemented as a Global Policy, policymakers have to agree that the global interdependence is an obvious fact, and they must be supportive of sustaining environmental security and national, regional and global populations' stability enabling a scalable economic development.

Policy leaders and government heads shall agree that such a global policy will be effective only if it is equipped with mechanisms for counteracting shortcomings in DDR, particularly, during the phase of the reintegration of demobilized forces.

Mechanisms of the Global Policy proposed by GWI include seven public administrative principles for the Implementing Bureau and the Implementing strategies.³⁷ These mechanisms will require that political hurdles be removed in order for the policy implementation to proceed.



For the concept to be efficiently and effectively applicable, GWI proposes that the AU and African heads of governments enact environmental legislation that takes into account and the inter-linkages between programs for the reintegration of demobilized forces and water supply.

A General Secretariat established on the African continent is projected to be more accessible for stakeholders operating in both fields in post-conflict countries. Given developing countries tend to have low capacities in human capital, a General Secretariat to monitor these programs would be more accessible and easy to reach than advisory committees.

Information on financial grants is also communicated and shared easily. The development of joint post-reconstruction projects for international funding can be dealt with in the same General Secretariat.

Appendix B provides a framework with implementation strategies

PART VI

F. MAJOR CHALLENGES

The development of new approaches such as GWI added value is quite an easy task. The real challenge is to implement recommendations resulting from the November Symposium as approved by participants. The resolution of issues raised in the paper including the IMB implementation strategies and other recommendations throughout this paper will require considerable time.

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Building national capacity is not a task feasible in the short-term. The challenge in doing this includes clearing out political hurdles by aligning sub-systems for information stove-piping to ensure that more complex political issues are addressed. Implementing such a program may take no less than three to five years and some parts of it may even take longer time. Other may never take place.

The challenge is also to facilitate the practical, timely and cost-effective implementation of the potential policy adopted by African Governments' heads while synergizing with local authorities and global policies and delivering services to beneficiaries. The implementation of existing international policies is also a very long difficult process, but fundamental, since it can serve as a basis for cooperation at various levels.

Above all, the real challenge today is to find the right equilibrium between environmental security and development. What makes it even harder to balance is adding the issues of managing water in regions that are under extreme stress due to water shortages, and reintegrating demobilized forces in countries which have experienced various groups of combatants.

Although water availability is not a big issue in the Great Lakes region in Africa, there is a major challenge in establishing policies enabling the sustainability oriented to the management of the quantity and the quality water.

Post-conflict countries in sub-Saharan Africa face the challenging hurdle of recognizing who are former fighters and who needs help. A case in point concerns Burundian former child-soldiers.

Even with the availability of financial support from the DDR program, it is difficult to recognize child soldiers or former fighters who chose to run away from their masters. In military terms, they are considered "deserters." Thus, this category of ex-combatants who joined the rebellion because they were captured and forced to enlist for fear of getting killed, if they managed to run away, they cannot and will not feel free to live in any community as long as insecurity reigns.

Ex-combatants who escaped their camps continue to fear that they may be imprisoned or killed or forced to re-enlist. They live in hiding and therefore, they receive benefits from the DDR program as if they were not formally registered as

former fighters. There are thousands of former child-soldiers living in hiding and even well-informed Burundians are not aware of their existence.³⁸

The difficulty in recognizing former fighters from the main public is a major issue in terms of achieving GWI's pre-determined objectives for contributing to the environmental security and the protection of citizens as long this marginalized group cannot be recognized from the rest of the population. The solution to the problem might be to ensure that ex-combatants work side by side with civilians and that other disadvantaged groups are included in the program, but as a small portion.

Even though local and international stakeholders understand the inter-linkages among different work fields including public health, environmental security and other types of security, socio-economic development and so on, GWI expects that there will be understandable resistance to highly coordinated multi-donor approaches. Indeed, often organizations doing different things, but oriented to a similar goals, prefer operating in isolation thereby remaining fragmented rather than combining efforts.

PART VII

G. RECOMMENDATIONS

GWJ proposes that global environmental policy leaders and policy implementers to:

1. Command AU to enact environmental legislation that takes into account the inter-linkages between programs for the reintegration of demobilized forces for the environmental security purposes and water management resources.
2. Help GWJ establish an office, known as the Implementation Monitoring Bureau (IMB). The IMB shall be managed by a person at the ambassadorial ranking level. His or her role shall be to implement a common program for the reintegration of former combatants through water programs.
3. The AU and international institutions shall grant GWJ with a minimum of a 3 year funding to set up mechanisms for the creation of the environmental security legislation.
4. The AU and its global partners shall support GWJ in taking action in the following themes:
 - a. A gender action plan which will include campaigns for the promotion of the role of women in water resource management, including demobilized women;
 - b. Establishment of a fund to support the development of educational program in water, sanitation and hygiene in rural communities; and
 - c. Establishment of safety net mechanisms linked to the environmental protection and human security that are set forth to assist demobilized forces and the communities in which they live. These mechanisms call upon GWJ's added value.

GENERAL SECRETARIAT RESPONSIBILITIES : PROPOSITION

Responsibilities of the **IMB General Secretariat** shall do the following but is not limited to

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- a. Assessing environmental issues which might underlie social conflicts such as access to safe drinking water, water for agriculture, fishery, pastoral hydrology, forest protection, etc.
- b. Supervising, monitoring and addressing needs for demobilized forces in terms of professional training vis-à-vis water-related programs.
- c. Incorporating water-sharing agreements into the process of the reintegration and reinsertion of demobilized populations.
- d. Using strict mechanisms, but flexible enough to ensure, targeted demobilized forces acquire appropriate training and remain in the same field for a minimum of two years.
- e. Coordinating and reporting to donors, national leaders and other stakeholders
- f. Ensuring the participation of local communities³⁹ and civil societies
- g. Establish a national council ((National Council for Environmental Security (NCES) that brings together all actors involved in programs that include water resources and the reintegration of demobilized. The main task of this council would be to track a common program

The NCES

- a. Shall ensure that international actors fill only key gaps during certain stages of the process, assist in building capacity among indigenous actors and institutions, and facilitate hand-offs to them are crucial to long-term success; and
- b. Shall ensure that policymakers in water-related programs and long-standing practitioners in peacebuilding and post-conflict reconstructions have the role of integrating best practices and lessons learned into the NCES, i.e., creation of social structures to ease dialogues between demobilized forces and community members, especially women and girls; and creation of other conflict preventing mechanisms that are linked to water and environment security in general.

PART VIII

H. CONCLUSIONS

The GWI's first Symposium was organized in an effort to invite street-level managers, practitioners, scholars and policy makers and governments' heads to direct more efforts towards examining inter-linkages between two deep rooted issues the continual water stress and the inadequacy in the reintegration of employment. The authors of the GWI concept are convinced that a common solution to both issues can be a part of the essence of the prevention of conflicts' recidivism in post-conflict countries.

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A global policy permitting the establishment of a General Secretariat for coordination can contribute in fulfilling the mandate of the environmental security–development nexus. The global policy as an outcome of the Symposium shall be utilized in leading policy makers in strategic planning and the implementation of both water resources and reintegration⁴⁰ programs.

The intent of this paper has, therefore, been to explain the value added by GWI and to propose the creation of a strategic planning process. The strategy explained by a diagram is simple and clear enough to help stakeholders in establishing priorities by focusing on environmental security and populations' stability while using water resources as a driving tool to reintegrate demobilized forces.

SEVEN ADMINISTRATIVE PRINCIPLES	
Principle 1.	Planning and defining clear implementation policies, assigning responsibilities that must result in specific outcomes and holding employees accountable for their performance.
Principle 2.	Investing more time in mastering the details of the legislative forces governing the program.
Principle 3.	Aligning forces around the goal of GWI-IMB and seizing national and international windows of opportunity to ameliorate targets' socioeconomic conditions.
Principle 4.	Integrating implementing agents within GWI-IMB program and ensuring that those with veto points play an important role in the achievement of GWI- NCES outcome.
Principle 5.	Equipping GWI-IMB with adaptive and easy methods of communication in order to adjust with the fast fading technology.
Principle 6.	Caring for what constituencies think and need by keeping an open ear to local environment feedback in order to serve them better.
Principle 7.	Establishing strategic directions to assist IMB General Secretary to ensure working with confidence that what he or she does is appreciated by the general public and is reaching the true constituencies.

Furthermore, in the search of making a high priority on the agenda of GWI added Value's supporters and donors of the program, the General Secretary shall be actively familiar with salient details of co-adjacent programs as these can turn to be matters of dispute. Specifically, knowing strategic planning of national and international stakeholders that are running organizations with similar goals might provide GWI-IMB with a competitive advantage on how to differentiate its own program from theirs, and at the same time, keep them as accessorially relevant in the service to demobilized forces and their communities.

In addition, GWI is planning to make a difference in its future role of leading Organization. With funding availability, the GWI shall establish the IMB with simplified contextual framework of expectations from demobilized forces in each country involved in the program. Such a framework shall structure departmental relationships and enhance national members' empowerment, thereby strengthening their trustworthiness and accountability.

The aforementioned principles of effective GWI's leadership will no doubt have additive effects on implementation results. Although the seven principles above need not all be present for implementation to succeed, Ndaruzaniye, author of these principles, is confident that each of them will positively contribute to both the outputs under the supervision of the IMB General Secretary, and to the overall implementation outcomes. It follows that ensuring the inclusion of all of them will have greater impact in the alleviation of eventual intractable events, thereby leading to greater additive effects in GWI-IMB's perspectives.

Appendix B

GWI-IMB* IMPLEMENTATION STRATEGIES			
Issue	IMB-Level	NCES** Level	Community Level
<i>What does the IMB Want to Do?</i>	<p>1. Define the public good; set the ultimate goals; specify expectations.</p> <p>2. Share risk; and manage change.</p>	<p>1. Coordinate the network comprised of public and private entities; align Page 44 values; define discretion and incentives.</p> <p>2. Share risk; and manage change</p>	<p>1. Define services needed and output; establish trust.</p> <p>2. Manage change.</p>
<i>What Can IMB Implementers Do To Reduce Delays?</i>	<p>1. Design implementation statutory principles that focus on reintegration demobilized forces, to decrease delinquency; and increase job opportunities and in-kind services for demobilized forces and their families in water-related programs.</p> <p>2. Restructure National Policies to include IMB objectives and goals.</p> <p>3. Clarify individual turf to avoid conflicts; align subsystems for information stove-piping.</p>	<p>1. Enhance staff skills in the required field. Make data available on demobilized populations country by country in Africa and their conditions of life.</p> <p>2. Implement management leadership and define tasks to be carried out by the General Secretary and two internal commissions: <i>Water Commission</i> and <i>Conflict Prevention Commission</i>.</p> <p>3. Improve technology for better communication in a network environment.</p>	<p>1. Review Demobilized individuals' conditions of life to tackle the problem from the source.</p> <p>2. Understand psychosocial factors contributing to demobilized forces' patterns of life to ameliorate their living conditions.</p> <p>3. Learn demobilized forces' needs through dialogue; include them in the water-related programs; schedule seminars to understand their needs in order to improve their conditions of life; train and provide them with employment in water-related</p>

			<p>program activities, i.e. water supply to household, school and other public places; building infrastructure for water and sanitation; agriculture; fishery; forestation, etc .</p>
		Page 44	
Funding: Where to Put Resources?	<p>1. Talk to the fixer about the new idea.</p> <p>2. Promote the idea of changing socioeconomic conditions for demobilized groups and their families through water-related programs; explain the need for an increase in funding.</p> <p>3. Convince AU, NEPAD, government heads, (i.e. Congressional officials and legislators) to appropriate more funds to the IMB, focusing on improving socioeconomic conditions of demobilized forces and groups through water-related program activities.</p>	<p>1. Convince stakeholders to support the new idea.</p> <p>2. Allocate where to put money, and inform donors how funds will be used; explain the expected outcomes; network with street-level managers and community actors to build support from the bottom-up.</p> <p>3. Distribute funds among localities, but monitor; encourage collaboration to avoid monopoly;</p>	<p>1. Encourage more participation from the citizenry to engage in lobbying to persuade Congress to allocate more funding.</p> <p>2. Call for journalists to help speak out about the need for funding reintegration's programs for socioeconomic change that promote security and stability and lead to sustainable economy</p> <p>3. Use funding wisely; report to donors.</p>
Is there Accountability Structure?	Create a flexible approach to guard against <i>creaming</i> . ¹	Encourage and allow discretion at the local level; but penalize if financial incentives are misused.	Use discretion to ameliorate programs and innovate relatively to local context.
When Initial	1. Retreat from initial statutory objectives.	1. Refine IMB plan of action; redefine	1. Change water-related

<p>Implementation Fails What Can Implementers do?</p>	<p>2. Give up vertical control to focus on compliance; use incremental ideas.</p> <p>3. Create a <i>micro-implementation</i> statute; create stronger lateral control at lower levels; ensure commitment to aggregate implements from lower level implementers</p>	<p>the global picture of what NCES' objectives and goals will be measurably achievable, both in the short term and long term, respectively.</p> <p>2. Follow guidelines as provided by IMB; establish a framework approach that is based on a <i>narrower process</i> focusing on local policy.</p> <p>3. Collaborate and allow ample discretion to lower level political jurisdictions in exercising their authority based on the contextual situation; collaborate fully with localities in the organizational change</p>	<p>activities for some demobilized groups; enhance the understanding of the situation while progressing in the new implementation process.</p> <p>2. Innovate; adopt new policies by borrowing idea champion and practices from other institutions operating in water resources and DDR program.</p> <p>3. Take into account local values for better social service delivery.</p>
<p>Is there Integration & Alignment?</p>	<p>1. Exercise leadership; design the structure; assign responsibilities for reporting.</p> <p>2. Allocate resources to include incentives in statutory objectives</p>	<p>1. Promote operational coherence and cohesion.</p> <p>2. Network; ensure coordination between AU and IMB and between NCES and country levels</p>	<p>1. Execute statutory objectives; report to superiors.</p> <p>2. Report the use of funds</p>
<p>Can IMB use trade-off among competing objectives?</p>	<p>1. Ensure the orchestration of aggregate decisions around a common set of outcomes; allocate incentives for individual countries, civil societies and localities, i.e.; organization of sponsored cultural events that maximizes participations of demobilized forces.</p>	<p>1. Work toward meeting the IMB statutory goals; provide incentives to local partners</p>	<p>1. Work toward meeting the federal statutory goals</p>

* IMB : Implementation Monitoring Bureau **NCES: National Council for Environmental Security

End Notes

1. United Nations Inter-agency Working Group on Disarmament, Demobilization and Reintegration. 2006. Integrated Disarmament, Demobilization and Reintegration Standards (IDDRS). United Nations, New York, NY., p.2.
2. Ndaruzaniye initiated, for the first time, the seven public administrative principles and public implementation strategies in 2006 at American University, Washington D.C., while she was advising worldwide stakeholders in public administration how to succeed public administration' services.
3. See UNEP. Post conflict environment assessment. 2007.
"Sudan is in the midst of a genuine deforestation crisis. Most of the resources in northern, eastern and central Sudan have already been lost and the remainder is being depleted at a rapid pace. The large-scale timber resources of Southern Sudan are disappearing quickly, and are generally being wasted as trees are burnt to clear land for crop-planting and to promote the growth of grass."
3. World Commission on Environment and Development, Our Common Future, Oxford University Press, Oxford, UK. 1987.
5. In the Glossary of this paper, the definition of "security" is provided in a broader sense.
6. The United Nations Conference on Environment and Development. Rio de Janeiro from 3 to 14 June 1992.
7. The Eleventh Ordinary Session 30 June – 1 July 2008. Sharm El-Sheikh, EGYPT. Assembly/AU/Decl.1 (XI). <http://www.africa-nion.org/root/AU/Conferences/2008/june/summit/>.
8. United Nations. Resolution 1809 of the Security Council. S/RES/1809 (2008). Adopted by the General Assembly of the Security Council at its 5868e session on 16 April 2008. <http://www.un.org/africa/osaa/>
9. United Nations. 2004. "A More Secure World: our shared responsibility," Report of the Secretary General's High-level Panel on Threats, Challenges and Change, New York, US. 2005. Retrieved June 12, 2008 from the World Wide Web: <http://www.un.org/secureworld/report.pdt>.
10. The Second Water Decade: "Water for Life – 2005-2015," began on World Water Day, March 22, 2005. The goal of this decade is to encourage stakeholders' effort to work in line with international guidelines agreed upon regarding water resource management until 2015, with a specific focus on ensuring women's participation.
11. On November 29, 2000, the UN General Assembly (UNGA) designated UNESCO to set up a framework for the coordination of activities of the UN agencies with the goals of promoting a culture of peace at local, national, regional and international levels and ensuring that governments act as world leaders. This UN Program of Action adopted with a unanimous resolution by UN members on October 6 1999, suggests eight action fields for the promotion of a culture of non-violence and peace. International peace and security, and sustainable economic development are among these action plans.
12. From Conflict to Peacebuilding. The role of Natural Resources and the environment. A foreword message by Steiner, A, UNEP Executive Director. 2009.
13. See the UN. International Decade for Action, "Water for Life."
14. UN. A/RES/57/6. Décennie internationale de la promotion d'une culture de la non-violence et de la paix au profit des enfants du monde, 2001-2010. Résolution adoptée par l'Assemblée générale, novembre 2002.
15. UN. A/CONF.199/20. World Summit on Sustainable Development. 2002. Johannesburg Declaration on Sustainable Development. Retrouve le 12 mai 2009. Accessible au: <http://www.un-documents.net/jburgdec.htm>
16. UN Millennium Development Goals. 2000. United Nations A/RES/55/2. Resolution adopted by the Resolution adopted by the General Assembly. Accessible au <http://www.un.org/millennium/declaration/ares552e.pdf>
17. See. From Conflict to Peacebuilding: The role of Natural Resources and the environment UNEP. 2009
18. UNEP. 2009. From Conflict to Peace building. The Role of Natural Resources and the environment. Published by the United Nations Environment Programme. 19p.

19. The UN. Resolution regarding the Millennium Development Goals (MDG) is one of the many other international guidelines set for poverty eradication and conflict prevention, but failed to reach goals set forth, particularly in Sub-Saharan Africa.
20. UNEP. Sudan: Post-conflict environment assessment. United Nations Program Environment. Nairobi.2007. 72-97 p.
21. Environmental security: Why nature is a matter of survival. 2000. Issue 9 Retrieved online on 12 June 2009. Worldwide Web. <http://cmsdata.iucn.org/downloads/pm9.pdf>
22. See Note 20 for reference.
23. Ndaruzaniye,V. 2008, Reintegration of Demobilization forces. Assessment on the Burundi. Interview with individuals, NGO managers and government's heads on the issues related to both water scarcity and reintegration of demobilized forces.
24. Gormely and Balla explain the concept satisficing as an option among many others used by bureaucrats or other decision makers to achieve organizational goals.
25. See. United Nations. Resolution 1809 of the Security Council. S/RES/1809 (2008). Adopted by the General Assembly of the Security Council at its 5868e session on 16 April 2008. <http://www.un.org/africa/osaa/>
26. The Eleventh Ordinary Session 30 June – 1 July 2008. Sharm El-Sheikh, EGYPT. Assembly/AU/Decl.1 (XI). <http://www.africa-nion.org/root/AU/Conferences/2008/june/summit/...pdf>
27. see. WHO and UNICEF. Water supply and sanitation collaboration council. 2000.
28. This figure is based on estimates from countries that represent approximately 96% of Africa's total population, said the WHO and UNICEF, 2000.
29. See. World Health Organization [WHO], 2003.
30. See. WHO/UNICEF, 1992.
31. Peter Lochery.2007. Beyond the Status Quo. Bringing Down Barriers to Water and Sanitation Provision in Africa through Implementation of the Senator Paul Simon Water for the Poor Act. Testimony before the United States House of Representatives Committee on Africa and Global Health. May 16, 2007.
32. The Second Water Decade: "Water for Life – 2005-2015," began on World Water Day, March 22, 2005. The goal of this decade is to encourage stakeholders' effort to work in line with international guidelines agreed upon regarding water resource management until 2015, with a specific focus on ensuring women's participation.
33. On November 29, 2000, the UN General Assembly (UNGA) designated UNESCO to set up a framework for the coordination of activities of the UN agencies with the goals of promoting a culture of peace at local, national, regional and international levels and ensuring that governments act as world leaders. This UN Program of Action adopted with a unanimous resolution by UN members on October 6 1999, suggests eight action fields for the promotion of a culture of non-violence and peace, including, 1) Education for a culture of peace and non-violence; 2) Sustainable economic and social development; 3) Respect for all human rights; 4) Equality between women and men; 5) Democratic participation ; 6) Understanding, tolerance, solidarity ; Participatory communication and free flow of information and knowledge ; and 8) International peace and security.
34. Ambassador John McDonald initiated the foundation of Global Water and the Institute for Multi-Track Diplomacy, two non-profit organizations operating under the same roof in the United States. Valerie Ndaruzaniye has worked with both organizations as a program manager under McDonald supervision. McDonald is also the Honorary President of Global Water Institute, Brussels.
35. Stockholm Initiative on DDR SIDDR - Stockholm Initiative on Disarmament Demobilization Reintegration. Available at <http://www.sweden.gov.se/sb/d/4890>.
36. Introducing the Transitional Demobilization and Reintegration Program (TDRP). The Great Lake region. 2009.

- ³⁷ . Ndaruzaniye initiated, for the first time, the seven public administrative principles and public implementation strategies in 2006 at American University, Washington D.C., while she was advising worldwide stakeholders in public administration how to succeed public administration' services.
- ³⁸ . Uvin. P.
- ³⁹ . Local actors should have the primary responsibility in the reintegration of former fighters and should play central roles throughout the reconstruction process, since it is, indeed, their own future that hangs in the balance.
- ⁴⁰ Reintegration as being the last phase in the Disarmament, Demobilization and Reintegration (DDR).

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4. The Eleventh Ordinary Session 30 June – 1 July 2008. Sharm El-Sheikh, EGYPT. Assembly/AU/ Decl.1 (XI). <http://www.african.org/root/AU/Conferences/2008/june/summit/...pdf>
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6. The Center for International Strategic Studies (CSIS) Post-Conflict Reconstruction. A joint project of the Center for Strategic and International Studies (CSIS) and the Association of the United States Army (AUSA) Framework. Also available at <http://csis.org/images/stories/pcr/framework.pdf>. [Task Framework.2002](#).
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15. World Health Organization (WHO). (2003). *Looking back: Looking ahead: Five decades of challenges and achievements in environmental sanitation and health*. Geneva: World Health Organization. Retrieved on line : 12 May 2009. World Wide Web. http://www.who.int/water_sanitation_health/hygiene/envsan/en/Lookingback.pdf
16. WHO/UNICEF. (1992). *Water supply and sanitation monitoring report 1990*. New York: WHO & UNICEF.
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