

Proceedings of International Conference on A Development Strategy for the Horn of Africa

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I. INTRODUCTION

II. Welcoming Remarks:

III. Key Note Lecture

IV. PANELS: Summary and Papers

1. MACRO-ECONOMIC DEVELOPMENT AND GLOBALIZATION

2. AGRICULTURAL AND RURAL DEVELOPMENT

3. HEALTH AND HUMAN DEVELOPMENT

4. INFRASTRUCTURE AND WATER

5. EDUCATION, SCIENCE, AND TECHNOLOGY

6. WOMEN AND SOCIAL DEVELOPMENT

V. APPENDICES

- **Conference Participants**
- **Conference Sponsors**

I. INTRODUCTION:

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Founding Director, The Africa Program

The University of Texas at Arlington

International conference on a development strategy for the Horn of Africa convened by The Africa Program at The University of Texas at Arlington (UT Arlington), as well as the Dallas-based The Horn of Africa Peace and Development Center and the Amoud Foundation. Established in 1994, The Africa Program seeks to promote business, educational, and technological relations between the State of Texas and African countries. The conference was held on the campus of UT Arlington, October 20-22, 2006. It attracted a large number of participants from the Dallas-Fort Worth area and several states in the United States, as well as overseas. Many of the participants represented local African community organizations from Ethiopia, Somalia, Djibouti, and Eritrea, as well as other regions of Africa. They included community leaders from education, business, politics, and civic organizations.

The conference was in recognition of the growing public and scholarly interest in addressing the long-term development challenges facing the countries of Ethiopia, Somalia, Eritrea, and Djibouti with a growing population of over eighty million in the Horn of Africa. The conference themes included macro-economic development and globalization, agriculture and rural development, infrastructure and water development, education, science, and technology, as well as healthcare, the environment, and women and social development. The distinguished panelists were drawn from academic institutions in the United States and abroad, The World Bank, The United Nations, and the United States Agency for International Development.

On behalf of the conference organizers, I wish to express our gratitude to President James D. Spaniolo, administrators, faculty, and students of UT Arlington who supported the conference in many ways. Our sincere appreciation to Dr. Mulu Ketsela, Alternate Executive Director of The World Bank, for delivering the keynote address at the conference. I would also like to thank members of The Horn of Africa Peace and Development Center and the Amoud Foundation for their financial and moral support of the conference. Finally, I would like to thank all the participants from Africa, Europe, and the United States who helped to make the conference a success and for their contributions to this collection of the conference proceedings.

II. Welcoming Remarks

Kidane Alemayehu, Founding President

Horn of Africa Peace and Development Center

Mr. Chairman & Ladies and Gentlemen

My address will focus on the background, reasons for having the conference, its expected outcome and future prospects. But first, please allow me to welcome you, on behalf of the Horn of Africa Peace and Development Center, to this historic, unprecedented conference and to acknowledge the important contributions of certain organizations and individuals without whom this conference would have not been possible. I am thankful to The Africa Program of the University of Texas at Arlington led by Dr. Jalloh who exerted a huge effort as chairman of the organizing committee along with his excellent secretary, Ms. Lois Lettini. I thank Amoud Foundation represented by Mr. Yussuf Kalib whose dedication and extraordinary financial support made this conference possible. My thanks are also due to the other members of the organizing committee: Dr. Habte Woldu, Dr. Dereje Agonafer, Mrs. Safia Ismail, Mr. Betru Gebre-Egziabher, Mr. Semere Habtemariam, Ms. Martha Melaku, and Mr. Solomon Haile. May I also express, on behalf of the Horn of Africa Peace and Development Center, our gratitude to Dr. Mulu Ketsela, Alternate Executive Director and, through her, to the World Bank for her support to this civic initiative and hope that our collaboration will continue.

I would like further to express my appreciation and thanks to all the speakers at this conference. As per the conference program, the six panels will conduct sessions the whole day, and night if necessary, tomorrow (Saturday) to discuss the issues and to formulate the respective development strategies for the Horn of Africa. On Sunday, we are scheduled to have our second plenary session at which each chairperson will present his/her proposed development strategy for the Horn of Africa (HOA). This will be followed by a general discussion after which the chairpersons will have a joint meeting to formulate the final resolution which will be presented to the third and final plenary session.

BACKGROUND

The idea of organizing a conference on a development strategy for the HOA was initiated at the international conference on prospects of a confederation in the Horn of Africa held in Tampa, Florida in November 2002. The outcome of that conference is contained in a document entitled the Tampa Declaration and can be seen in the website: www.hafrica.com. Shortly thereafter, the Horn of Africa Peace and Development Center was established in Tampa, Florida. The Center's vision is to see a Horn of Africa sub-region where genuine democracy, peace and stability will prevail and where the evils of poverty and deadly diseases, violence and wars will have been eliminated in the future.

The Center's main mission is to initiate research and studies on HOA issues and to generate practical ideas and strategies and action plans for implementation by the concerned countries with the support of regional, international and civic organizations as well as bilateral assistance. For more information, please visit the Center's website: www.hafrica.com.

The members of the Center's Board include Mr. Yussuf Kalib, Mr. Semere Habtemariam, Mr. Harun Musa and myself. The Center's first major outcome is this conference which was organized, as stated earlier, in collaboration with UTA's Africa Program and the Amoud Foundation.

This historic and unprecedented conference is to focus on all the major socio-economic aspects needed for the formulation of a development strategy, namely, macro-economic development and globalization; agricultural and rural development; infrastructure and water; education, science and technology; public health; as well as women and social development. Scholars from 13 universities, 8 institutions, and 3 UN organizations including the World Bank are meeting here in Dallas for the purpose of formulating the

development strategy which will be the first of its kind in the history of the Horn of Africa region. It should be noted that the Horn of Africa Peace and Development Center will collaborate with interested partners such as COMESA and, hopefully the World Bank and the UN, in promoting the outcome of this conference as well as in conducting further detailed studies for the implementation of the Development Strategy.

REASONS FOR HAVING THE CONFERENCE

There was an international hue and cry when the Tsunami hit Indonesia recently. However, not much is said and done about persistent disasters of Tsunami proportions that afflict the Horn of Africa resulting in the perennial death of hundreds of thousands including women and children. The following are disasters of Tsunami Proportions in my view.

Tsunami #1: Poverty: The Horn of Africa (HOA) is among the very poorest regions in the world. The GNP per capita income is about \$100.00 per annum. The policy of land ownership by the state has relegated 85% of Ethiopia's population, which depends on agriculture, to a status of serfs. According to the UN Development Index (HDI): out of 177 countries: Djibouti 150th, Eritrea 161st, Ethiopia 170th, Somalia (Data not available)

Tsunami #2: Problems of Health and Environmental Degradation: The people of the HOA suffer from the blight of diseases such as malaria, TB, and HIV/Aids from which hundreds of thousands die every year. The devastation of the environment is progressing at an alarming rate. Life expectancy in the Horn of Africa is 40 years.

Tsunami #3: Antagonistic and Conflicting leaders: The current leadership in the HOA countries is incapable of initiating an integrated development strategy. Some of the states are not even on talking terms let alone initiating any regional development and cooperation. Governance in the HOA is characterized by lack of democracy and abuse of individual and human rights. A heavy cloud is looming over the HOA with signs of impending conflagration: a Jihad proclaimed by Somali militants, and the worsening tension between Eritrea and Ethiopia.

Tsunami #4: Disunity: the HOA is torn into four desperately poor countries. There are both internal and external factors for such disunity.

The Glory of Distant Past: There were times in history when most of the HOA was a united entity whether known as Punt or Ethiopia. In the words of Donald Levine: "In the latter part of the 3rd century Mani wrote that Axum (Ethiopia) ranked among the great powers of the world." For at least half of the First millennium, the powers that be in the Middle East and the Horn of Africa were Byzantium, Persia, and Ethiopia. For more details, please refer to my paper entitled: "Horn of Africa: From Glory to Misery, and Hope?".

Let me quote a poem by the famous Ethiopian Poet-Laureate Tsegaye Gebremedhin entitled: "Yes, We betrayed our ancestors": "When our fathers gave us the cradle of the First World, At the beginning there was KA, the first God of Earth and Sky, On this birth land of our first ancestors. They raised for us the sacred shrine on the glowing head piece of the Horn of Africa, Where the sun first touched the body of the Earth. But, alas, now, look at us! The generation who has forgotten how to unite. The rotten link that has lost the scale of self-respect. Look at us!"

Tsunami #5: An Indifferent International Community: The international community is pursuing a policy of containment in the Horn and does very little for the region's socio-economic development for mutual benefit. There are three foreign armies located in the HOA: two belonging to USA and France are there to protect others from the HOA including the so-called "international terrorism". The UN force is simply an observer.

In his book entitled: “Arms for the Horn”, Jeffrey A. Lefebvre states that the HOA has no strategic value to USA except “its location across the Red Sea from Saudi Arabia”. According to him, USA interests in the HOA are for:

(1) Protecting the sea lines of communication or oil lanes; (2) “Supporting Egypt’s efforts to protect its southern flank and the Nile waters”; and (3) Blunting destabilization activities aimed at Saudi Arabia and other pro-western states.

In his book “The Horn of Africa – Conflict and Poverty”, Mesfin Woldemariam states: “For the US, none of the countries of the Horn have any significance outside its material interests on the Arabian Peninsula, and the prosperity and military strength of Israel.”

WHY SHOULD THE INTERNATIONAL COMMUNITY BE INTERESTED IN THE HOA?

The international community should be interested in the HOA for the following mutual benefits:

(1) With its current population of nearly 100 million, increasing to 145 million by 2025, the HOA has a tremendous trade potential;

(2) The HOA has substantial water, energy, agricultural, and mineral resources. 86% of the water flowing to Egypt originates in Ethiopia;

(3) The HOA possesses a significant cultural, historic and environmental tourism potential;

(4) The HOA is situated at a sensitive strategic location with ports on the Red Sea, the Gulf of Aden and the Indian Ocean;

(5) The HOA plays a highly significant role in international affairs as it hosts three important organizations: the African Union headquarters (AU), the Economic Commission for Africa (ECA), and the Inter-Governmental Authority on Development (IGAD);

(6) Countries surrounding the Red Sea could form a Cooperative Council which could bring together an area which has a population of 200 million, increasing to 400 million in 20 years.

These countries have mutually complimentary resources: agricultural, labor and water resources on the Horn of Africa side and investment and oil on the side of the Arab Peninsula. Such a Council could contribute immensely to international peace and development.

POLITICAL AND ECONOMIC DEVELOPMENT

Before I conclude, let me address two points that are raised regarding this conference and the previous one held at Tampa: 1. Those whose perspective of history spans only a century or so give scant regard to earlier times when the Horn of Africa was a united entity. I obviously disagree. We ignore history at our own peril. As indicated already, the Horn of Africa was prosperous and strong when it was united and weak as well as poor when, as at present, it is divided. 2. With the exception of few far-sighted scholars such as Professor Sisay Assefa of West Michigan University, current wisdom among Horn of Africa activists holds that politics should be the sole focus of attention. While the struggle for democracy and human rights should be supported, ignoring socio-economic development needs is, in my opinion, a folly of gigantic proportions. In Clinton’s campaign words: “It is the economy, stupid!”

CONCLUSIONS

1. An integrated development strategy is essential for the Horn of Africa as no such instrument has ever been devised so far. Because of leadership problems in the region, such a strategy can only be formulated through civic initiatives such as ours.
2. An appropriately formulated development strategy would facilitate a meaningful response by the international community to the desperate plight of instability, poverty and disease afflicting the Horn of Africa region.
3. In order to promote an accelerated development in the region, it is essential for the international community to encourage the governments and people of the region to strive for unity, democracy and respect for human rights.
4. It is also essential for the international community to reassess its strategy and role in the Horn of Africa so that it will, for its own interests, contribute to the region's accelerated economic development.
5. For all the above reasons, the conference is extremely beneficial for the people of the Horn of Africa and humanity at large. The Center is confident that all the scholars gathered here today will contribute effectively to the formulation of an appropriate development strategy for the Horn of Africa. It is anticipated that the chair of each conference workshop will come up with a concise identification of the issues and strategies aimed at enabling the 90 million people of the Horn of Africa to finally defeat the grinding poverty and associated diseases from which they have been suffering for so long.

In the words of US Senator and Presidential hopeful Barack Obama, our effort is inspired by the title of his recent book *The Audacity of Hope*. THANK YOU.

III. Key Note Address

Strengthening Economic Partnership and Creating a Common Vision for Sustainable Development in the Horn of Africa

Dr. Mulu Ketsela,
Alternate Executive Director, the World Bank Group

Distinguished Guests, Ladies and Gentlemen:

Let me start by saying how pleased I am to be here and for the opportunity to address the International Conference on “A Development Strategy for the Horn of Africa.” This Conference is being held at a critical juncture—marked by chains of events—where countries in the Horn of Africa are confronted with many challenges in their quest to build a stable and prosperous society. Given the multidimensional nature of today’s topic, I am confident that the move of the conference organizers to bring academics, and representatives of the public and private sectors from the region will help facilitate the articulation of a common vision on the development strategy of the Horn of Africa.

As you are well aware Ladies and Gentlemen, the people of the Horn have yearned for years for lives that are more predictable, prosperous and without conflict, so they could live in a peaceful and stable environment. Notwithstanding the sporadic political setbacks facing countries in the Horn, I will only focus on the conference agenda, i.e., “Strengthening economic partnership and creating a common vision for sustainable development in the horn of Africa.”

With your indulgence, Ladies and Gentlemen, I will be using the term Horn and the Greater Horn interchangeably to advance the view that the Horn of African countries, as customarily defined by many, need to strive towards integrating their economies not only within their boundaries, but also with the Greater Horn and beyond, if they want to succeed in the continuous creation of wealth and poverty eradication.

Most countries in the Greater Horn have made tremendous efforts to rise out of conflict and pursue sustained growth and poverty reduction over the past decade. Some advances have been made in the rehabilitation and reconstruction of roads and air transport to facilitate the movement of goods and services within the sub-region. The economic reforms being implemented since the mid-1990s are now bearing fruits in economic growth and development in countries such as Ethiopia, Uganda, Kenya, Tanzania and Rwanda. Success in these countries was a result of broad political interest and commitments by Governments in implementing wide ranging reform programs. The progress achieved in these countries is encouraging; however, countries need to continue making unrelenting efforts to ensure the sustainability of reforms. It is also important to recognize the efforts of countries such as Tanzania, Ethiopia, Kenya, and Rwanda to join the international community in adopting the goals of good governance. Like many countries, members of the Greater Horn have sought to achieve participatory, transparent and accountable governments.

It is also clear that although the goals are shared, the means of achieving them have been adapted to national conditions and contemporary political realities. Still, significant challenges lie ahead for the development of the Horn of Africa as a sub-region. Forward movement remains essential in resolving instability, food insecurity, and healthcare problems, as well as in improving infrastructure networks and services to support growth, rural development and poverty reduction.

Distinguished Delegates. To overcome these challenges, we should all seek to attain the peace and growth commitments pursued by the African continent through the African Union, and its economic arm, the New Partnership for Africa’s Development (NEPAD). We should also pursue the commitments of the Inter-Governmental Authority for Development (IGAD)—a promising vehicle whose primary mission is to achieve sub-regional economic cooperation and integration through the promotion of food security,

sustainable environmental management, peace and stability, intra-regional trade, and the development of improved infrastructure.

Against this backdrop, I would like to outline specific areas in which stakeholders here can pursue research and provide expertise to help the sub-region achieve its goals.

First, we should give priority to infrastructure development as a sub-region. Without improved transport and telecommunications links, and without better water resource management and energy sufficiency, business expansion and economic growth will remain constrained. We should also give priority to agriculture and rural development as a means of reducing poverty in a substantive manner. Second, we should establish a sustainable and safe business environment by promoting health, business-relevant education and skills development, a swift response to disaster, and efforts to enhance technology transfer and combat corruption. In this regard, specific sector issues must be addressed: Third, despite periodic droughts, the potential for hydro power in Africa, both in central and eastern regions is remarkable. Recent research has found that renewable energy can become an important energy source, resulting in a wide range of socio-economic benefits to the population in the sub-region. For instance, for just two technologies explored: biomass-based cogeneration and geothermal energy, the research finds that, if exploited, these two methods could meet as much as 10% of electricity supply in East Africa. And if these technologies are found to be affordable, there could be opportunities for the Horn of African countries to tap into the new global resources for renewable energy investment. In pursuit of improved access to energy, these countries could take advantage of the World Bank's Energy Program. Other critical areas for the sub-region include improving market and trade infrastructure; and the building of private sector trade capacity and the improvement of the financial sector infrastructure needed to support access to micro-finance and rural credit. These are areas in which the region could work with the World Bank to increase the number of activities under the Infrastructure Action Plan and the Public-Private Infrastructure Advisory Facility.

It is also imperative that we give priority to agriculture and rural development as a means to reducing poverty in the sub-region. There is consensus amongst many that agricultural growth focusing on small farmers is a central dynamic force to achieving sustained growth and development in the Horn of Africa. Notwithstanding the efforts of countries in the Horn to improve agricultural outputs, regrettably, droughts occurring with increasing frequency are reversing the modest gains made by agriculture. For the most part, this is the result of low investment in irrigation, water harvesting, and in technologies that reduce the risk of rainfall variability. Furthermore, lack of adequate infrastructure in the region has created unfeasible marketing institutions. Therefore, investment in infra-structure, particularly rural infrastructure, is indispensable, if countries in the Horn were to attain the requisite transformation of their economies. The World Bank has various agricultural and rural development support activities, under its rural development strategy (Reaching the Rural Poor). The Institution could be approached for collaboration in various core areas of agricultural productivity that increases yields, secure land tenure, enhance the functioning of markets, and promote the effective management of natural resources. Also, the dissemination of appropriate agricultural technology remains important as does the identification of local needs, knowledge bottlenecks, and trade capacity gaps. In the past, various initiatives on staple food crops such as the Pan Africa Cassava Initiative, the Global Cassava Partnership, and the Pan Africa Nerica Initiative have proved promising. The Horn of Africa region could also develop its own region-specific strategies—building on these experiences.

Human resource is potentially one of the region's most valuable assets. If the means can be found to tap this potential by developing skilled and economically productive human resource—specifically suited to the economic needs of the region—this would indeed be a breakthrough. The dividend that can be gained by productively tapping the human capital in the Horn of Africa is enormous. Appropriate investment in education and skills development to suit the particulars of the economy of the Horn is necessary, if this potential is to be tapped. Countries of this sub-region have over the past decade accorded priority to increasing enrolments in primary schools. However, countries have to also give more attention to improving the quality of education at the primary, secondary and tertiary levels so school graduates could attain the required learning standards. Still, many children have yet to gain access to meaningful education, especially in

the rural areas. Thus, the building and operation of more rural schools remains an important strategy, as does the access of students in these schools to computer technology. In this regard, a push could be made to scale up the Horn of Africa's engagement in the World Bank's Education for All Fast Track Initiative. At the tertiary level, it is now evident that a work force with predominantly academic qualifications will be ill-equipped to promote business development and private sector-led growth. The countries in the Horn could benefit from a successful Institute of Advanced Technology—servicing the whole sub-region with research capabilities and facilities that play an important role in the evolution of their business sector. Such an institute could conduct state-of-the-art research and activities in selected areas that are important for the development of the private sector.

As you are well aware, Ladies and Gentlemen, poor nutrition, a rising number of people living with HIV/AIDS, and increased trends of other communicable and infectious diseases contribute to high levels of morbidity and mortality in the Horn of Africa countries. To address this, the strengthening of health systems and services is critical. The effective provision of essential drugs and the establishment of workable structures for the prevention and control of communicable diseases are important to enhancing the health status of the population in the sub-region. The improvement of the public health systems through interventions in the areas of nutrition and reproductive health should also be considered a priority. Countries in the sub-region could collaborate in their fight against HIV/AIDS, since they share comparable value systems. The World Bank's Health and the Global HIV/AIDS Strategies could provide an important framework for enhanced collaboration in this area. Last, but not least, although countries in the Horn uphold common culture and traditions, they still possess a large and complex society made up of highly diverse local communities. Democracy in this region, like in many other regions, can only make sense if development projects are implemented through means that involve local communities to control their destiny and make governments accountable to their citizens. Decentralization of responsibilities is therefore critical to ensuring that local communities are truly empowered. In implementing decentralized development, we need to be persistent to overcome difficulties; and we also need to be patient in learning from experience as well as from the knowledge of local people.

As you know, Ladies and Gentlemen, the process of devolving power and responsibilities to local communities have been underway in some countries in the sub-region. Sharing experiences in this area, and forming partnership with the aim of refining and enhancing the implementation of decentralization is vital to ensuring that the objectives of empowerment would be sufficiently met. For instance, I think countries in the sub-region could learn a great deal from Ethiopia's experience in this area, since it has embarked upon a far reaching decentralization program throughout its territory. I am confident that all those gathered here will find ways and means in dealing with these challenges so the goals towards a common end could be attained. I wish you all success. I thank you.

IV: PANELS: Summary and Papers

1. Macro Economic Development and Globalization

REREQUISITES TO MACRO-ECONOMIC DEVELOPMENT AND GLOBALIZATION IN THE HORN OF AFRICA: HUMAN AND ECONOMIC RIGHTS

Theodore M. Vestal

Professor of Political Science

Oklahoma State University, Stillwater, OK, USA

The title of our panel today is “Macro-Economic Development and Globalization.” Its objective is to assess the Horn of Africa’s macro-economic conditions, identify the main challenges and potentials, and recommend practical medium and long-term overall development strategies. These include required capacity building measures aimed at achieving substantial poverty reduction and sustainable economic progress through increased collaboration and equitable mutual support. Macroeconomics involves the study of the entire economy in terms of the total amount of goods and services produced, total income earned, the level of employment of productive resources, and the general behavior of prices. Macroeconomics can be used to analyze how best to influence policy goals such as economic growth, price stability, full employment and the attainment of a sustainable balance of payments.

My definition of globalization agrees with that of Australian sociologist Malcolm Waters: “Globalization is theorized as a process and not as a static endpoint.”²

By the Horn of Africa, we refer to the nations of Ethiopia, Eritrea, Djibouti, and Somalia. This area encompasses 737,000 square miles, about the size of three Texas’s plus Louisiana and Connecticut, inhabited by 87.5 million people, a population larger than that of Germany, the most populous nation of Western Europe..

THE POTENTIAL OF THE HORN OF AFRICA

The Horn—or at least the highlands of Ethiopia—is a part of Africa that some of the world’s best scientists for over fifty years have been predicting should be the bread basket of Africa or the Middle East. Blessed by a splendid climate, rich soil, and intelligent human resources, the area’s potential was great. In the words of the renowned comic strip philosopher, Pogo, the region was “surrounded by insurmountable opportunities.” What happened? Instead of being a bread basket, the region suffers from a lack of food, not to mention poverty, disease, and continuous internal strife. What blocks the nations of the Horn from realizing their potential? What constitutes a realistic strategy for development in this region?

The hard answers to these questions are the substance of our conference here this weekend. From my perspective, a development strategy for the Horn of Africa must be founded upon two pillars.

The first pillar is promoting freedom, justice, and human dignity—working to end tyranny, to promote effective democracies, and to extend prosperity through free and fair trade and wise development policies. Free governments are accountable to their people, govern their territory effectively, and pursue economic and political policies that benefit their citizens. Free governments do not oppress their people or attack other free nations. Peace and international stability are most reliably built on a foundation of freedom.

The second pillar is based on the idea that many of the problems the Horn of Africa faces—from threat of pandemic disease, to proliferation of weapons, to terrorism, to human trafficking, to natural disasters—reach across borders. Effective multinational efforts by the Horn nations are essential to solve these problems.

If one accepts these two pillars as basic to development in the region, all the strategies and proposals being generated in our conference will amount to nothing unless they are built on the firm foundation of truly democratic governments in the region that get along with one another.³

To create a democratic, well-governed state that can meet the needs of its citizens and conduct itself responsibly in the international system may well be the work of generations. But this is the best way to provide enduring economic well-being for the people of Ethiopia, Eritrea, Djibouti, and Somalia.

The record of governance in the Horn is well-known and depressing. Some governments have regressed, eroding what few democratic freedoms their peoples might once have enjoyed. Tyranny persists in its harshest form in most of the nations. Tyranny is the combination of brutality, poverty, instability, corruption, and suffering, forged under the rule of despots and despotic systems. Too few governments honor and uphold basic human rights, including freedom of religion, conscience, speech, assembly, association, and press.

THE GOVERNMENTS OF THE NATIONS OF THE HORN

The governments in the Horn and their human rights records are described in the polite language of the U.S. State Department as:

1. The Federal Democratic Republic of Ethiopia under the leadership of Prime Minister Meles Zenawi and the ruling Ethiopian People's Revolutionary Democratic Front (EPRDF) coalition continues its transition from a unitary to a federal system of government. In 2005, although there were some improvements, the government's human rights record remained poor and worsened in some areas (U.S. Department of State, Ethiopia, Country Reports on Human Rights Practices-- 2005. Released by the Bureau of Democracy, Human Rights, and Labor, March 8, 2006)⁴

2. Eritrea is a one-party state that became independent in 1993 when citizens voted for independence from Ethiopia. The People's Front for Democracy and Justice (PFDJ), previously known as the Eritrean People's Liberation Front, is the sole political party and has controlled the country since 1991. The country's president, Isaias Afwerki, is also the leader of the PFDJ. The government continuously postponed presidential and legislative elections. An unresolved border dispute with Ethiopia seriously hindered international trade and affected the government's external relations. In 2005, the government's human rights record worsened, and it continued to commit numerous serious abuses. Tensions increased over the border impasse with Ethiopia, and the government increased its roundups of young men and women for national service and imposed additional travel restrictions on diplomats, humanitarian and development agencies, and UN Mission to Eritrea and Ethiopia (UNMEE) (U.S. Department of State, Eritrea, Country Reports on Human Rights Practices-- 2005. Released by the Bureau of Democracy, Human Rights, and Labor, March 8, 2006).

3. Djibouti is a republic with a strong presidency and a weak legislature. In 2005, President Ismail Omar Guelleh of the ruling People's Rally for Progress (RPP), won reelection; Guelleh ran unopposed amid an opposition boycott. The government's human rights record remained poor, and it continued to commit serious abuses; however, the government made improvements in some areas (U.S. Department of State, Djibouti, Country Reports on Human Rights Practices-- 2005. Released by the Bureau of Democracy, Human Rights, and Labor, March 8, 2006).⁵

4. Somalia has been without a central government since 1991. The country is fragmented into three autonomous areas: the Union of Islamic Courts and the Transitional Federal Government (TFG) struggle for

control in the south, the self-declared Republic of Somaliland in the northwest, and the State of Puntland in the northeast.

The country's human rights record remained poor and serious human rights abuses continued. Unemployment, malnutrition, drought, floods, ethnic fighting, the Indian Ocean tsunami, and the displacement of more than 400 thousand persons exacerbated the country's already extremely poor human rights situation (U.S. Department of State, Somalia, Country Reports on Human Rights Practices-- 2005. Released by the Bureau of Democracy, Human Rights, and Labor, March 8, 2006).

All of the governments share commonalities in abusing human rights. Among the most egregious listed by the State Department are: abridgement of citizens' rights to change their government; abuse of prisoners and detainees; harsh prison conditions; official impunity; arbitrary arrest and detention and prolonged pretrial detention; interference with privacy rights; restrictions on freedoms of press, assembly, and association; use of force to disperse demonstrators and strikers; violence and discrimination against women; and discrimination on the basis of ethnicity, nationality, and clan background.

In summary, the nations of the Horn exist in instability and perennial internal conflict based on such vulnerabilities as ethnic, religious, clan and other divisions. Deficits of democracy and abuse of human rights are rampant.⁶

THE NEED FOR HUMAN AND ECONOMIC RIGHTS

Truly democratic nations are responsive to their citizens, submitting to the will of the people, especially when people vote to change their government; exercise effective sovereignty and maintain order within their own borders, protect independent and impartial systems of justice, punish crime, embrace the rule of law, and resist corruption; and limit the reach of government, protecting the institutions of civil society, including the family, religious communities, voluntary associations, private property, independent business, and a market economy.

In effective democracies, freedom is indivisible. Political, religious, and economic liberty advance together and reinforce each other. Thus, the people of the Horn need to figure out how to successfully manage their agricultural systems and then harness the tools of economic assistance, development aid, trade, and good governance to help ensure that their governments are not burdened with economic stagnation or endemic corruption.

Elections are the most visible sign of a free society and can play a critical role in advancing effective democracy. But elections alone are not enough – as we have seen all too clearly in Ethiopia--they must be reinforced by other values, rights, and institutions to bring about lasting freedom. The goal of governments in the Horn should be human liberty protected by democratic institutions.

Participation in elections by individuals or parties must include their commitment to the equality of all citizens; minority rights; civil liberties; voluntary and peaceful transfer of power; and the peaceful resolution of differences. Effective democracy also requires institutions that can protect individual liberty and ensure that the government is responsive and accountable to its citizens. There must be an independent media to inform the public and facilitate the free exchange of ideas.

There must be political associations and political parties that can freely compete. Rule of law must be reinforced by an independent judiciary, a professional legal establishment, and an honest and competent police force. Although good governance is essential to creating the conditions needed for entrepreneurship and investment to flourish, it is the private sector that makes development and well being sustainable. As the experience of many nations attests, it is the private sector, not the government sector, that is “the driver of prosperity.” The private sector creates wealth, while the government merely transfers wealth.

The connection between good governance and globalization highlights the significance of development of civil societies in the Horn. According to Canadian philosopher G.B. Madison, “democracy” and “human rights” are devoid of meaning outside the context of “really existing” civil society.² Madison defines a civil society as one organized in a particular way, a pluralistic society that safeguards autonomy of different spheres of human agency (social-cultural, political, and economic).

Such a civil society demands individuals be accorded constitutional guarantees necessary to be able to pursue their own self-development, their own individual destiny, in freedom and security. Thus, the protection of human rights, the preservation of human dignity, is a *sine qua non* of a genuine civil society and a market economy. In other words, civil society is every thing that totalitarianism is not.

The fundamental meaning of such a civil society is that individuals must have the unquestioned right to act freely in their own interests, either individual or collective, without government interference or obstruction. That is what human rights are all about. So long as the nations of the Horn are criticized by international human rights organizations and even the U.S. State Department for shortcomings in protecting human rights, their path to economic development remains in jeopardy. Reformers in the Horn doubtlessly are aware that the most well-to-do countries enjoying the highest “quality of life” are, on the whole, those which permit the freest expression of civic spirit.⁴

What the people of the Horn want are basic economic rights: the right to exercise one’s creative abilities (the right to work), the right to enjoy the fruits of one’s labor, and the right to be secure in one’s possessions. These rights cannot exist in the absence of the appropriate legal framework. From this view, the single most important human right that is the supreme function of the State to ensure is the right to private ownership of property. The right of private property must be granted to people if their freedom and dignity are fully to be respected and if they are to be empowered to pursue their own economic well-being. According to enterprise economy theorists, where the right of private property does not exist, everyone must work for the state, and no one can be in control of his or her own destiny. Thus, the institution of private property and the free market economy are designed to serve the interests not of a minority but of society as a whole. Viewed that way, economic freedom is a moral imperative. The liberties to create and build or to buy, sell, and own property is fundamental to human nature and foundational to a free society. Economic freedom also reinforces political freedom. It creates diversified centers of power and authority that limit the reach of government. It expands the free flow of ideas; with increased trade and foreign investment comes exposure to new ways of thinking and living which give citizens more control over their own lives.

As Madison explains, “Freedom of economic activity is a common good even though some will invariably put this freedom to better use and will draw greater profit from it than will others, and the common good itself will be enhanced the more democratic an economy is, i.e., the greater the number of people there are who are able actively to participate in it and are free to exercise their entrepreneurial skills.”⁵ In the newly emerging world order, the speed and thoroughness with which countries are able to embrace free trade and affect the necessary economic and political liberalization measures will determine the pace of their development.

By definition, human rights are always universal and belong to individuals as such, in contrast to group rights based on nationalism, ethnicity, race, clan, or religion. By privileging group rights over individual rights, ethnic nationalism stands squarely opposed to the implementation of individual human rights, the condition for the creation of a civil society. In ethnic states, citizenship rights are treated not as individual rights extended equally to all, but as collective rights of ethnic or “national” groups.

Interneccine warfare becomes almost inevitable as seen in the case of Yugoslavia. There, calls for “national self-determination of peoples” meant the suppression of individual human rights for those not members of the ethnic in-group and total destruction of civil society—a reversion to the Hobbesian “war of all against all” and the very opposite of civility. According to Madison, “There is no instance where an ethnic obsession has facilitated democracy and human rights, and there is no lack of instances where it has actively frustrated democratization.”⁶ When for reasons of ethnic nationalism a people reject the idea of democracy and civil

society, “anarchy or despotism in some form is all that is left,” according to the American political theorist, Abraham Lincoln.

Related to human rights is the concept of the rule of law. Hence it will be of utmost importance for the nations of the Horn to demonstrate that they have independent judiciaries enforcing the due process of the law. Respect for minority rights and equality before the law also are fundamental in judging the effectiveness of independent courts. Increasingly the judiciary will umpire the transition of Horn nations from traditional societies to modern ones, with their concomitant gradual disintegration of traditional, collectivist value orientations, and the emergence of value pluralism. If truly independent, the courts will decide the fundamental issue in the process of modernization: how to facilitate coexistence in spite of pluralism and extensive politicization. In other words, judges will preside over the acceptance and toleration of plurality and the assurance that politicized groups are reliably protected by institutional means.⁷

Political freedom and economic freedom are inseparable. Only when the nations of the Horn bring together accountable, representative governments, respect for human and minority rights, respect for the rule of law, civil society and open markets will economic development and poverty reduction be possible.

Globalization presents many opportunities. Much of the world’s prosperity and improved living standards in recent years derive from the expansion of global trade, investment, information, and technology. Globalization has also helped the advance of democracy by extending the marketplace of ideas and the ideals of liberty. These new flows of trade, investment, information, and technology are transforming some nations in significant ways. ¹¹ To bring the benefits of globalization to more nations, the Doha Development Agenda negotiations of the World Trade Organization (WTO) were instigated.

These negotiations have worked to open markets and integrate the global economy. Ministers from participating nations agreed to adopt around 50 decisions clarifying the obligations of developing country member governments with respect to issues including agriculture, subsidies, textiles and clothing, technical barriers to trade, trade-related investment measures and rules of origin. Although many problems remain to be worked out in these negotiations, they are a start to reforms that may have a beneficial impact on the Horn. Other problems involve the health of residents of the Horn. The lack of sufficient food and malnutrition throughout the region demand government initiatives to end hunger. Ways must be found to use science, technology, and market incentives to increase the productivity of farmers in the Horn. Related to such an initiative is the pressing need to provide clean water to the poor. Governments in the Horn must continue efforts to turn the tide against AIDS and other infectious disease. Improved health programs must focus on increasing child survival and immunizations for measles, polio, and meningitis; strengthening reproductive health planning; improving maternal and child nutrition practices; treating and controlling malnutrition, pneumonia, diarrhea, tuberculosis and malaria; and improving health care systems.

Regional conflicts are a bitter legacy from previous decades that continue to affect security interests in the Horn today. Regional conflicts do not stay isolated for long and often spread or devolve into humanitarian tragedy or anarchy. Outside parties can exploit them to further other ends, much as al-Qaida exploited the civil war in Afghanistan. This means that even if the United States or the European Union do not have direct stakes in a particular conflict, their interests are likely to be affected over time. Outsiders generally cannot impose solutions on parties that are not ready to embrace them, but outsiders can sometimes help create the conditions under which the parties themselves can take effective action.

Therefore, it follows that the fewer the regional conflicts, the fewer outside influences will muddy the waters of economic development in Horn countries. In Ethiopia and Eritrea, a festering border dispute threatens to erupt yet again into open war. The conditions in Somalia may well lead to surrogate wars of Horn countries in that troubled land.

CONCLUSION

The problems facing the nations of the Horn in modernizing and establishing their rightful places in the global economy are formidable. The region's challenge will be to unleash its strengths and to realize its promise.

Countries that respect markets and the rights of the individual are more likely to grow economically. They are more likely to achieve political stability. They can raise education standards, deliver better health care and protect their environment. May the nations of the Horn soon join the ranks of such countries, and may this conference provide a helping theoretical hand in this effort.

Notes:

1. Malcolm Waters, *Globalization*, Second Edition (London: Routledge, 2001), p. 225.
2. G.B. Madison, *Political Economy of Civil Society and Human Rights* (London: Routledge, 1998), p. 8.
3. Madison, pp. 7-11.
4. Madison, p. 112.
5. Madison, p. 180.
6. Madison, pp. 22-24.
7. Dieter Senghaas, *Clash within Civilizations* (London: Routledge, 2002), p. 8. 131

2. AGRICULTURAL AND RURAL DEVELOPMENT

ABSTRACT: The International Conference on a Development Strategy assembled a group of scholars and professionals with experience and expertise in the various dimensions of human development in the Horn of Africa. This is a summary by the participants of the Rural and Agricultural Development Panel. The participants of this plenary panel and their affiliation is as follows: Dr. Sisay Asefa, Professor, Department of Economics & Director, Center for African development Research, Dr. Efreem Bechere, Senior Research Associate, Plant and Soil Science Department, Texas Tech University (TTU), Dr. Badege Bishaw, Director of International Programs, College of Forestry, Oregon State University, Dr. Haile Selassie Belay, Chief Technical Advisor/FAO/UNDP (Retired), and Mr. Michael Wales, FAO Investment Centre, Food and Agriculture Organization, Rome Italy. The panel was chaired by Professor Sisay Asefa, who also compiled this draft report based on the reports provided by the individual panelists. Those interested in the detailed paper by each participant can directly contact the individual panelist. We are thankful to the panelists and participants of the plenary session. We thank the organizers and co-sponsors of the successful international conference on the development strategy of the Horn of Africa: The University of Texas-Arlington Africa Program, and the Amoud Foundation, and the Horn of Africa Peace and Development Center. Information on the conference including the final agenda can be accessed at website: http://www.uta.edu/africaprogram/upcoming_new.html 1

SUMMARY AND RECOMMENDATIONS

Dr. Efreem Bechere, Texas Tech University

Even by African standards, the Ethiopian agricultural system is quite young. Formal agricultural research started only about 50 years ago. Unlike many African countries, Ethiopia has not been colonized by any European power and subsequently did not benefit from the research infrastructures left behind when these powers left Africa. Whatever achievements made so far is solely accomplished through the national efforts. The national agricultural system has evolved through three different systems – a feudal system, a totalitarian socialist military junta, and the current ethnic based federal form of government. All systems restructured the system to fit their specific ideologies. This has created a significant level of instability in the agricultural research system and created havoc and disenchantment in terms of the outcome expected from investment on agricultural research.

During the socialist government, 1974-91, thousands of the intelligentsia fled the country and during the fall of that government, local people stormed the local research facilities and looted everything from microscopes to research seeds. These are some examples in recent memory. Despite these ups and downs, the research systems has gradually evolved through the years and contributed its part to the betterment of agriculture and the national economy. The last decade has seen more focus on the agricultural research system and the outcomes has also been relatively more promising. Unfortunately, these outcomes have been neutralized and diluted by some controversial government policies which have created bottlenecks to the implementation of agricultural research outcomes. Some of these bottlenecks which require urgent attention are enumerated below.

1. **Irrigation:** The Problem is out of 11 million hectares presently farmed; only 190, 000 hectares are under irrigation. Ethiopia is the water tower of Africa. Rainfall is becoming more erratic and unreliable. **Suggestion** – Promote low cost water harvesting irrigation technologies such as construction of earth dams, river diversions, and hand pumps. On the research side, crop varieties and management practices for irrigated agriculture should be given due emphasis.
2. **Fertilizers:** The Problem is Ethiopia totally depends on fertilizer imports. Even though farmers are fully aware of the use of fertilizers, the cost is becoming prohibitive. One hundred kilograms of DAP

and Urea costs 318 birr and 380 birr, respectively. Fertilizer and other inputs totally cost the farmer about 1000 birr/hectare. A poor subsistent farmer cannot simply afford this. **Suggestion** – Until such time that farmers can afford these inputs, the government should help with subsidies or reduce the current interest rate which is about 7.5 %. Micro-credit mechanisms such as those in the Grameen credit system of Bangladesh should be adopted

3. **Improved Seeds:** The Problem is only about 2% of the seeds used by farmers are improved seed. The rest are all local, low yielding, disease susceptible varieties. **Suggestion** – The increase and distribution of improved seeds at a price the farmers could afford should be given serious consideration.
4. **Population Growth:** The Problem is one of the greatest development problems facing Ethiopia today is population explosion, especially the young. Research achievements and other development outcomes are negated by the astounding increase in population numbers. At the current rate of growth (2.2 – 2.9%), by the year 2050 Ethiopia's population will be 169 million, the largest in Sub-Saharan Africa. Suggestion – A strict national policy to reduce the current birth rate should be in place. Education and family planning should be expanded to the rural communities. All avenues, including contraceptives and other birth control methods, should be pursued. Better employment and educational opportunities for the poor, especially the female population, should be rapidly promoted.
5. **Land Policy:** The Problem is land tenure security is vital for a successful agricultural development, especially in Ethiopia where 85% of the population lives in the rural area. Tenure security will provide the right incentives to invest or make improvements in land and to protect natural resource degradation such as soil erosion and deforestation. In the central and northern highlands, land holdings have dwindled from 0.5 hectares/per farmer in the 1960s to only 0.11 hectares/farmer in 1999, showing rapid decline of average farm size to uneconomic units. **Suggestion** – This fragmentation and abuse of land will continue until land is privatized and the average land holding of farmers increase and land markets operate that optimize farm sizes aimed at increasing farm productivity. The population pressure on the land has resulted in loss of fertility, degradation and ecological imbalances with far reaching consequences. The government's and the private sector's responsibilities will be to create alternative sources of employment for farmers displaced from their lands in the rural areas.
6. **Underdeveloped Rural Infrastructure: The Problem** – Road networks are limited and do not reach many villages in the rural areas. Farmers do not get fair prices for their produces. This discourages farmers from adopting new technologies to increase yield of their crops or livestock. It is also difficult to transport heavy items like seeds and fertilizers especially during the rainy season. **Suggestion** – The government should make investment in rural roads a serious priority. Railways will be a cheaper alternative and these will carry much heavier loads. There has been some promising progress in road building in recent years, which must be accelerated further. Current effects with expansion of roads in the country are encouraging. In conclusion: For outcomes from agricultural research to bring about meaningful development in Ethiopia, these issues, among many others, need to be addressed by the current and future Ethiopian Governments. Research and development issues do not function in a vacuum. Realities on the ground should create enabling environments for research results to translate into success and lead the country to food self-sufficiency.

AGRICULTURAL & RURAL DEVELOPMENT ISSUES IN THE HORN OF AFRICA

Dr. Haile Selassie Belay (Retired), FAO/UNDP

INTRODUCTION

The Horn of Africa was not only the origin of mankind, but also one of the few origins of food production in the world which has regrettably been better known, during the last three decades, as the land of famine, hunger, and poverty.

Recent information derived from relevant sources has identified six major possible causes for the undesirable current situation that include: 1 War, violence and conflict, 2. Government policy failure, 3 Insecure Land tenure system, 4. Lack of Capacity building, 5. Natural hazards, 6. Degradation of cultural and Social values. The participants believe that the above mentioned are reversible; and therefore, having discussed the necessary measures to correct the bottlenecks, the conference has indicated its recommendations below under each category.

1. WAR, VIOLENCE AND CONFLICT

The Horn of Africa, which is the poorest region in the world, is spending billions of dollars on military expenditure and that in some instances the conflicts were fermented by their national or tribal leaders, as well as external elements. This was for their political ends at the expense of valuable human lives. The conference, therefore, appealed to all the leaders at every level to stop any conflict or violence including the spread of hatred using religious and ethnic differences. Furthermore, the Conference emphasized their appeal to cease conflict and confrontation in order to: a. Create an environment for durable peace and stability in the region, b. Enable effective use of scarce resources, and c. Consolidate their economic and social activities for the peoples' welfare making it a prosperous and powerful region.

2. GOVERNMENT POLICY FAILURE

Though the Horn of Africa (HOA) has immense wealth of natural resources, dysfunctional administrative organizations and misguided execution of agriculture and rural development programs have hampered its full potential and support provided through external assistance.

Hence, the panel recommended that corrective measures be made on the following issues mentioned under the following categories:

Policy Regarding Maladministration Organizations: The policy problems include organizations with no clearly defined purpose (or goals and objectives) that lack clearly defined functions, delegation of responsibility commensurate with authority, proper coordination within and between related rural agencies, and policy regarding Dysfunctional Program Execution. Management by objectives is replaced by crisis management and politicization of public administration; frequent changes or turnover of staff; rules and regulations hampering the flow of resources to rural areas; religious, ethnic or tribal politics interfering with local interests as well as normal organizational and managerial practices; lack of incentive policies to encourage the retention of competent staff to work in rural areas. There is also lack of effective measure to discipline corrupt officials, lack of freedom of choice – education not force should be used to persuade farmers to adopt modern practices including absorptive capacity for knowledge and professional skills. There is also contempt of trained manpower and reluctance to use their services

2. INSECURITY IN LAND TENURE SYSTEM & LAND TENURE POLICY:

As vast experience throughout the world has demonstrated, private ownership of land is a prerequisite to agricultural development. The present systems in Eritrea and Ethiopia are the major causes of low production in agriculture. The conference, realizing that reform will increase production of agriculture and encourage investment of capital, recommends that the two governments establish ownership of land as well as fix viable economic size of holdings for each type of farm practice.

3. LACK OF CAPACITY BUILDING

The development of agriculture is directly dependent on farmers' ability, knowledge and skills and the primary measure of increasing the capacity of farmers in the region is to equip them with technological know-how for the purpose of harnessing natural resources. The Conference recommended that the following socio-economic and technical services be made available:

A. An integrated system of agricultural education, research and extension: B. Basic education and health (including birth control), C. Farmers cooperatives, D. Credit and marketing facilities, E. Improved inputs including: Seeds, farm implements both for crop and animals, farm practices and fertilizers, F. Pest and animal disease control; and that in order to ensure their application are technically sound, economically feasible and socially acceptable to the rural people of the Horn of Africa, the services should be staffed by professionals and trained technicians.

4. NATURAL HAZARDS & DISASTERS

The Conference, realizing that draughts were the major natural hazards causing repeatedly serious famine in all countries of the region, recommended the establishment of grain storages at selected critical locations.

5. SOCIAL & CULTURAL VALUES

The panel was fully aware of the observance of numerous religious holidays in at least two countries of the Horn; and that timing in agriculture being a critical factor, the Conference has recommended that the two governments and their relevant churches persuade communities involved by various means and ways to gradually eliminate or minimize the observance of such holidays.

Integrating Agro forestry into Rural Development for Food Security and Environmental Protection

Badege Bishaw, PhD

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Introduction

Ethiopia is situated in the Horn of Africa, and has an area of 1,100,000 km² (472,000 square miles). It has a population of 75 million with annual rate of growth of 2.9 percent (World Resource, 2005). Ethiopia is the second most populous country in Sub-Saharan Africa after Nigeria and in land area it is the ninth largest. Ethiopia lies within the tropical latitudes; the climate is cool in the highlands and warm in the lowlands. It has very diverse agro-ecology ranging from highlands with 4,200 meters above sea level (Ras Degen), to the Dallol Depression -100 meters below sea level. These varied physiographic features and climate regions have endowed Ethiopia with diverse and extensive natural resources.

Ethiopia's key assets are its diverse natural (water, soils, forests and wildlife) and human resources. The country is home to over 6,500 species of plants (12 percent of which are endemic), 240 species of mammals, and 845 species of birds (EFAP, 1994). The vegetation (forest and woody vegetation) cover large tracts of land. The country has also vast water resources, with high potential for irrigation, hydroelectric generation, fishing, and other uses.

Agriculture is the dominant sector of the Ethiopian economy, with 85 percent of the population living in rural areas. Agriculture provides about 52 percent of the country's gross domestic product, 85 percent of its employment and 90 percent of its export earnings. The direct contribution of forestry to the national economy has not been surveyed systematically; however, recent estimates indicate that forestry accounted for about 6.7 percent of the national GDP (MEDaC, 1999).

Despite the efforts made to develop Ethiopian agriculture over the years, the problems of hunger, famine, and malnutrition and land degradation still linger and present the greatest threat to the survival of the nation. The traditional diversification of farmlands, which arguably has been the source of sustenance in rural Ethiopia since time immemorial, has largely been abandoned. Furthermore, deforestation, accelerated soil erosion, and land degradation are now serious problems in Ethiopia. As a result crop and livestock yields are generally very low and the recurrent drought has aggravated the situation. The land use system is associated with the decrease in the size of holdings both for arable and grazing lands. Thus, there is a continued trend toward the conversion of forested and marginal lands to agricultural lands, resulting in massive environmental degradation and a serious threat to sustainable agriculture and forestry.

Development Strategy for Agro forestry and Natural Resources

Various international organizations including the World Bank, in the Ethiopian Highland Reclamation Study (Constable 1985); FAO, in Preparatory Assistance to Research for Afforestation and Soil conservation (Davidson 1988); ICRAF, in Agro forestry Potentials and Research Needs for the Ethiopian Highlands (Hoekstra, Torquebiau, and Bishaw 1990), all have emphasized in their recommendations the need for conservation-based integrated development as a strategy to overcome the degradation of land resources and improve agriculture and forestry development in Ethiopia. To overcome deforestation and land degradation in Ethiopia and to provide the rural people with food fuel wood and fodder for their livestock on a sustainable bases, three natural resource management strategies are proposed: (1) implementation of agro forestry in the rural areas where subsistence farming is practiced, (2) expansion of plantation forestry on currently uncultivated and sloping lands, and (3) conservation of the remaining natural forests to conserve species, biodiversity and the environment (Bishaw, 2001).

I. Potential of Agro forestry in Ethiopia

There are many ways to reducing poverty, increasing food security and safeguarding the natural resource of Ethiopia. Agro forestry can be an important pathway to lead to prosperity through addition of trees to the farming systems. There is a huge potential for agro forestry development in Ethiopia – if properly practiced and managed, it can make a significant contribution to food security and environmental rehabilitation. The diversity in altitude, climate, soils and other physical features have created a variety of agro-ecological zones that give rise to a diverse forest flora and agricultural systems with opportunities for agro forestry in different settings.

Agro Forestry and Soil Conservation: Agro forestry has the potential to mitigate land degradation by controlling soil erosion (barrier approach), maintenance of soil organic matter through mulch and biomass transfers; the barrier approach to erosion control by checking runoff and keep valuable top soil in place. The contour hedges created by multipurpose trees provide soil erosion control through barrier approach mechanism.

Agro Forestry and Food Security: Agro forestry can contribute to food security through provision of edible products such as fruits and seeds. Trees can also improve soil fertility by fixing nitrogen from the air and recycling nutrients, thereby helping to increase crop yields. Trees provide valuable supplemental fodder for animals to enhance livestock production. Trees provide household energy for cooking, heating and lighting.

Agro Forestry and Income: Agro forestry provides farmers with products, many of them high in value, which can be sold in rural and urban markets such as selling timber, poles, charcoal and honey. Many trees and shrubs have medicinal value that keeps the farm family healthy and generate additional income. Trees that adapt well to the environment and drought tolerant tree species are insurance mechanism against crop failure.

Agro Forestry, Biodiversity and Environment: Many trees and shrubs planted through agro forestry can increase plant and ecosystem biodiversity; trees are also helpful in ameliorating global climate change by sequestering vast amounts of carbon.

The physical presence of trees on farm boundaries serve as living fences and protect home gardens from free grazing livestock. In order to realize the full potential of agroforestry in Ethiopia it has to be supported by ongoing and completed research results from the Ethiopian Institute of Agricultural Research (EIAR), higher learning institutions and regional research institutes. Such existing data can provide a good background for future research and development activities including scaling up of successful experiences.

The International Center for Research in Agroforestry (ICRAF) which deals with agroforestry research, extension and information exchange should play a leading role in improved land husbandry and agroforestry in Ethiopia. This would help Ethiopia in its efforts to attain food and income security for millions of rural poor and help in rehabilitation of the environment.

II Expansion of Plantation Forestry

Private forestland ownership is not common in Africa. Most of Africa's forests belong to the state, although some countries have maintained traditional forest land tenure rights, and smallholder farm forestry is widespread. South Africa is the only country where private sector-dominated forest ownership exists in Africa. There are more than 70 percent plantations and 43 percent of natural forests in private hands, producing over 80 percent of total commercial round wood in 1996/97 (DWAF, 1997). There are large areas of land suitable for tree planting for industrial purpose in Ethiopia. Expansion of plantation forests on privately owned or leased lands by private industry or individuals is an attractive business. The size of this operation ranges from small-scale woodlots to large-scale industrial and non-industrial plantations.

The most common objectives of private forest owners include: profiting financially from sale of different forest products; supplying raw materials to wood processing industries; making the best use of land holdings that are not suitable for other purposes; providing habitat for wildlife, promoting recreation, and fostering ethics of stewardship for ecosystem and social services of forest resources. The participation of the private sector in forestry is shaped primarily by public policies, product markets, and biological and biophysical conditions that influence productivity of land and alternative land use options. Some of these forces are linked to local – and national level socio-economic systems.

Ethiopia heavily depends on forest products for various domestic, industrial and cultural purposes. Over 90 percent of the population is dependent on biomass fuel as its major source of energy for cooking, heating and even lighting. Wood fuel accounts for about 95 percent of the total biomass fuel (EFAP, 1994). Presently this is met primarily by overexploiting the natural forests and woodlands. The current domestic wood supply which is 14.4 million m³ satisfies only 30 percent of the total national demand for forest products. There is a big gap between the demand and domestic supply for various forest products. In order to supplement the limited supply of wood products from domestic sources, the country is importing lumber, plywood, and panel products from abroad. The total annual import value of sawn wood and other processed wood products including pulp and paper was about \$35 million for 2001 (<http://www.efi.fi/databases/tradeflows/>). There is a great potential for Ethiopia to export round wood and other processed wood products to neighboring countries. Ethiopia is situated in close proximity to Middle Eastern countries that do not have suitable biophysical features to easily grow trees. These countries import huge amounts of forest products from countries farther way.

Private forestry has a potential role to play in Ethiopia's economic development. It can substantially raise the supply of forest products for domestic consumption as well as for export markets. Expanding domestic supply saves the country foreign currency (\$35 million in 2001) that the country spends on the import of forest products; this suggests market availabilities for the private sector. There is also a huge potential market for forest products in the Middle Eastern countries, to which Ethiopia has a comparative advantage due to its close proximity to the region. Other outputs of the private forestry sector might eventually provide recreational and ecosystem services as well. The expansion of the private sector is a shared responsibility between the government, the community, and individual investors.

Forestry investment should be market focused, and upheld by supportive policy and regulatory framework based on the economic, social, and environmental objectives of the country.

For the private sector forestry to develop and flourish in Ethiopia, land and property tenure guarantees are required for investors in large-scale plantations.

Different levels of government are also critical players in company-community partnership models because they provide an enabling policy framework, facilitate negotiations, and can support implementation. Concerned government institutions should also educate about the realizable opportunities from forestry investments and assist in providing indirect incentives, such as market information, extension, education and research. Private forestry and agriculture are complementary rural endeavors, and, therefore, both sectors must be treated equitably in order to achieve the desired integration of rural development and poverty alleviation and the enhancement of the economic, social, and environmental well-being of Ethiopia as a whole.

III. Natural Forests Protection and Conservation

According to different literatures, high forests, either coniferous or broad-leaved vegetation, covered 35 –40 percent of Ethiopia's land area before human settlement. Over the last 3,000 years there has been progressive deforestation, which has accelerated tremendously during the last century.

Rapid population growth, extensive forest clearing for agriculture, over grazing, movement of political centers and exploitation of forest for fuel wood without replanting reduced the forest area of the country 16 percent in the 1950s to 3.1 percent by 1982 (UNEP, 1983). Further estimates of the distribution of forests and woodlands indicate 2.8 percent of the land is under forest and woodland cover (Kuru, 1990; MOA, 1991). The remaining natural forests are located primarily in the southern and southwestern Ethiopia. These High forest areas have been identified and designated into 57 National Forest Priority Areas (NFPA). However, the proper protection and management of these National Forests are questionable due to lack of clear and efficient forest policy in the country. At present, accessible high forest areas are exposed to various development project pressures, including coffee and tea cash crops, human resettlement, grazing, and logging operations (MOA 1991). The forests of the country have been sources of different forest products for local consumption and industrial purposes. Forests provide different goods and services, which include fuel wood, construction wood, gums and incense, foods, fodder, recreation etc. Effort should be made to conserve, protect, and manage the remaining natural forests to benefit the current as well as the future generations. Since the best way to maintain species is to maintain their habitats, protected areas are an essential means to sustaining biodiversity. Protected areas also help stabilize the local climate, protect watersheds, and prevent erosion, and constitute the most widespread mechanism for conserving Ethiopia's remaining natural forests. Protected areas will contribute to the conservation of Ethiopia's remaining natural forests if they are able to meet the legitimate development aspirations of the people who live in and around the forests. Participatory forest management which promotes the involvement of the local communities in the identification of the complete range of relationships between the people and the forests that they use or manage is critical.

It is important to create a policy and legal framework to allow the participation of local communities in co-management of the resources and provide a mechanism to put this into practice. There is a strong relationship between environment and poverty and food security. Existing government policies and international agreements provide some basis for more active linkage between poverty reduction and the environment. There is an urgent need to incorporate environmental strategies, targets and indicators for better monitoring and evaluation of the outcomes of activities. Inclusion of environmental programs into the macroeconomic policies is not only important for the sustainable management of natural resources, but it also helps for sustainable growth of the national economy and the improvement of the livelihood of the rural households.

To ensure the success of food security efforts and poverty reduction programs, still the conservation of the remaining forest resources is very critical. The sustainable management of these resources and rehabilitation of degraded areas through soil and water conservation, closing of sloppy areas from agriculture is essential. Protection and conservation of the remaining natural forests play greater role in the environmental protection, soil and water conservation, biodiversity conservation, maintenance and improvement of micro-climate. Adequate agroforestry and natural resource education, research and extension service are needed to meet the demand for and challenges of managing natural resources on a sustainable base. Strengthening the countries education and research institutions to train qualified agroforestry and natural resource professionals with appropriate knowledge of forestry and agriculture in Ethiopia is required.

Finally, establishing a responsible and transparent independent natural resource organization to sustainably manage, protect and administer the natural resources of Ethiopia is needed.

A DEVELOPMENT STRATEGY FOR AGRICULTURE IN THE HORN OF AFRICA

Summary of Proposed Policy Actions

Michael Wales

Private Investment Centre, Food and Agriculture Organization (FAO)

Food security requires peace and stability. Governments will, therefore, need to ensure swift and effective forms of mediation at local and national levels to prevent conflict and to restrict the flow of arms. Governments must continue with institutional reforms. However, opening the door to the private sector and civil society does not mean they will develop automatically. Governments will have to pave the way by reducing and simplifying their trade regulations and establishing strong legal systems as part of enhancing the enabling environment for development.

Within the agricultural sector, the most important critical elements include:

- Increasing productivity by improving the effectiveness and efficiency of research and extension, making agents more relevant, demand driven, and accountable to farmers
- Enhancing the role of the private sector
- Improving incentives by making markets more efficient and competitive
- Improving the risk environment to promote investment
- Infrastructure development – especially rural roads , communication and irrigation
- Developing rural financial systems
- Moving from large-scale food aid to cash, investing in information and supply chains for high value exports, and developing rural towns
- Expanding safety net mechanisms to help vulnerable people
- Improving land security that will provide incentives for farmers to increase productivity and reduce natural resource degradation such as soil erosion, and deforestation.

Rural Poverty and Food Insecurity in Ethiopia: The Quest for Sustainable Rural Institutions and Technologies

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INTRODUCTION: This paper addresses the issue of rural poverty and food insecurity in Ethiopia, with the aim of exploring some policy options for their eradication. Specifically, it discusses the role of agriculture in alleviating poverty and food insecurity. The paper also explores the general problem of ‘Environment-Food Security-Rural Poverty cycle’, with emphasis on the need to develop productive and sustainable institutions and technologies aimed at eradicating absolute poverty, food insecurity and natural resource degradation (soil erosion and deforestation). Based on data from the First Round Ethiopian Household Survey conducted in 1994, using an analytical model (known as Social Accounting Matrix or SAM) the paper shows the nature of linkages within the agricultural/rural economy. Based on household data from peasant associations (PAs), the analysis also provides production trends and determinants or constraints of food crop production for selected provinces or zones. The paper shows the weak linkages among the sub-sectors of the rural economy, and concludes by drawing some policy implications from the literature reviewed and the results of the analytical case model. An important policy implication of the paper is the critical need to develop market and non-market institutions to increase agricultural productivity and to overcome crop production constraints and the weak linkages in the rural economy, in order to alleviate absolute poverty and food insecurity.

Summary and policy Implications:

A decade after its first report on poverty in 1990, the World Bank published a second comprehensive report on poverty. The first report characterized poverty as a condition of low income and consumption resulting from low returns to labor and other assets of the poor. The second or the 2000/2001 report extended poverty to be a result of low investment in education, health, nutrition, including deficiency in the other areas of human development such as powerlessness, lack of voice, vulnerability, and fear that poor people around the world express themselves in their own words. The second report also recommends three policy actions to combat poverty in general, by: 1. Promoting opportunity: enhancing economic opportunity for poor people by promoting poverty-focused economic growth and by increasing the productivity of their assets (land and labor-through education and health), and increasing the returns to these assets through a combined market and non-market actions. 2. Facilitating empowerment: making public institutions more accountable and responsive to the poor, strengthening their participation in the decision making process that affect their lives, and removing or dismantling social barriers that result from gender, ethnicity, race, religion, and social distinction and discrimination. 3. Enhancing security: Reducing poor people’s vulnerability to ill health, crop failure, policy induced dislocations, natural disasters, and violence. The advances in each of the above three areas are complementary. Each is important in its own right, and helps to enhance the others. While the report does not envision a simple blue print, it underscores the crucial notion that, “priorities must be made at the national level, but action and implementation must take place with local leadership and ownership reflecting local or community realities” and needs. (World Development Report 2000/01, p. VI)

The focus of this paper is more limited than the one addressed by the recent report by the World Bank. The emphasis here is on the problem of rural poverty in general, and on the relevance of an agricultural based employment strategy in alleviating poverty and food insecurity in particular. The paper explored the general problem of ‘Environment-Food Security-Rural Poverty cycle’, with emphasis on the need for productive and sustainable market and non-market institutions aimed at eradicating absolute poverty, food insecurity and natural resource degradation (soil erosion and deforestation). Based on data from the First round Ethiopian Household Survey conducted in 1994 and an analytical model (known as SAM), it has shown the weak nature of linkages within the agricultural/rural economy.

Based on community level data of a sample of provinces, the analysis has revealed production trends, including some production determinants or constraints for selected crops by provinces. Policy implications that can be drawn from the analysis of this paper include. First, for the officially adopted ADLI policies to succeed in meeting the goal of eradicating poverty in Ethiopia, private and public investments must be made on institutional technologies that increase crop production and improve the weak linkages within the rural economy. This will involve developing or strengthening marketing and credit institutions that provide market access and opportunities for the poor in the farm and non-farm sectors. Public and private investments must be channeled to overcome the weak linkages that exist in the rural economy particularly in agricultural crop production and non-farm sub-sectors. Public and private investments on sustainable agricultural technologies that focus on the existing potentials of each region and provinces should be made to exploit the regional comparative advantage and productivity gains. Public and private investments must be encouraged in agriculture and related enterprises in these regions. In other words, regions and provinces with agricultural potential should be fully supported (or not to be undermined) if the desired goal of an agricultural based economic growth or the ADLI strategy is to become a reality in eradicating poverty and food insecurity. In the other regions and provinces, with no comparative advantage in agriculture and crop production, appropriate non-farm enterprises should be developed to increase incomes and employment in these regions. Regional states or provinces should then be linked by free trade of commodities, and free mobility of labor and capital. Institutions and policies should be developed to facilitate this important process, and those that retard it should be removed. For example, this paper has confirmed the fact that Arsi is among the provinces with comparative advantage in agriculture in general and food crop production in particular. Other provinces such as Wello may, for instance, have comparative advantage in non-farm enterprises that can be developed. Economic policies should encourage such (natural) patterns of comparative cost advantage and link such provinces through free interregional trade, and mobility of labor and capital, especially by encouraging private investment based on regional cost (comparative) advantage to break the degradation-food insecurity trap.

This is not to undermine the need for public policy to seriously address regions and communities that may experience extreme economic dislocation or deficiency due to external shocks such as natural disasters or war. These are legitimate areas for policies to deal with at all levels of government. But, it is crucial to point out that such public transfer activities do not crowd out or substitute the challenge of addressing the long term problem of promoting productive investment activities in high potential productive areas aimed at sustainable economic growth and development and the eradication of absolute poverty and famines..

Public and private investment potential areas where there is regional comparative advantage in agriculture is the historical process of economic growth followed by nations that succeeded in using markets and agriculture as a vehicle of alleviating poverty and achieving economic development. For example, in the United States, most food crops such as wheat and maize are produced in Nebraska, Kansas and Iowa. Other states such as Michigan and Florida generally specialize in non-farm enterprises (Michigan in Automobiles and Florida in Tourism, for example). The federal states are then linked through free interstate trade of commodities and free mobility of labor and capital resources. Such regional specialization based on cost-advantages, and investment in agriculture has fueled the historic growth of the U.S. economy. This process has allowed the United States to achieve a successful economic development or structural transformation over time. Today, although only about 2 percent of the U.S. population is in the agricultural sector, the sector produces enough for the entire population as well as for exports and food aid to the rest of the world.

The paper has also argued that appropriate technologies that enhance the productivity of rural poor people's assets (such as labor and land) through improved seeds, fertilizer, and improved farm implements are also consistent with reducing resource degradation in general, or soil erosion and deforestation in particular. In other words, technologies and institutions that enhance agricultural productivity can simultaneously reduce natural resource degradation problems.

In conclusion, the challenge for eradicating absolute poverty and alleviating hunger in Ethiopia is best achieved by pursuing an economic growth strategy that transforms the currently low productivity and huge agricultural sector, where 85 percent of the population makes it's livelihood. This challenge can be met by

developing private and public institutions that promote the four prime movers of agricultural development identified earlier in this paper: 1. Appropriate technologies- produced by public and private investments in agricultural research; 2. human capital investments and vocational skills of poor people by investment in private and public schools, training programs, on-the-job experience and health; 3. investment in infrastructure such as dams, irrigation facilities, telecommunications and roads; and 4. investments in farmer support institutions such as marketing, credit, fertilizer, and seed distribution systems. Each of the above movers is important and complementary.

The analysis of this paper underscores the critical need to develop agro-ecologically or locally specific technologies to raise crop productivity, and to invest in infrastructure and in agricultural support institutions such as marketing and credit in order to overcome problems of productivity and weak linkages within the rural economy. The paper also implies that success in transforming agriculture along these lines can reduce natural resource degradation, and thereby enable Ethiopia to break out of the absolute poverty-environmental degradation cycle.

3. HEALTH AND DEVELOPMENT

Introduction: The Panelists included Paul Ehmer, USAID Global Bureau – President’s Malaria Initiative (PMI), Dr. Iyasu HabteGabr, Hurley Medical Center, Flint Michigan – Impact of Famine and Drought on Health Status and National Responses – The Case Eritrea, Dr. Ahmed A. Moen, Howard University, Washington, DC – Lessons Learned from Institutional Twinning of the Carter Center Public Health Initiative in Ethiopia through USAID Cooperative Agreement, and Richard Seifman, AIDS Campaign Team for Africa, World Bank – WB Initiative in the Horn of Africa

KEY ISSUES OF HEALTH AND DEVELOPMENT

Executive Summary

The panel focused mainly on the partnership and collaboration of regional and international stakeholders to combat emerging infectious and communicable diseases such as malaria, HIV/AIDS and TB and promotion of sustainable development, peace and stability of the Horn of Africa. Indeed, the presence of these opportunistic diseases coupled with endemic malnutrition, famine and drought in the Horn of Africa is not only germane to endless external dependence and fragmented food security policies, but also a barrier to capacity building, human resources and economic development and access to health care in underserved areas in the Horn of Africa. Of the 42 million people who suffered from AIDS, 26 million live in Africa and 3- 5 million AIDS orphans are in the Horn of Africa. The highest death occurs among 15-25 year old and adults in their prime life. Despite advances in drug therapies, the disease is nowhere near contained. A new case erupts every five seconds around the world. About 12-15 million people who are at risk of famine and drought related health problems in the Horn of Africa for the past five years die from preventable diseases.

Every 30 seconds an African child dies of malaria and of 1.2 million people who die each year from malaria twenty-five to thirty-five percents are children. The panel examined the issues of self-sufficiency and new paradigms of multilateral and bilateral technical and financial assistance policies of donor countries and nongovernmental organizations such as the European Union, World Bank, USAID, WHO, UNICEF, FAO and UNDP, Clinton Foundation, Millennium Development Goals as well.

The panel presented case studies and regional pilot and permanent projects some of which are using ongoing bilateral partnerships to enhance quality of life and capacity building in selected countries in the Horn of Africa with especial emphasis on Ethiopia and Eritrea.

For example, one case study demonstrated the value of twinning American with Ethiopian institutions in curriculum designs and standardization and pre-service competency based skills, an initiative supported by cooperative agreements between USAID and the Carter Center Ethiopian Public Health Training Initiatives and the Ministries of Education and Health. Others involved the role of multilateral technical and financial assistance by the World Bank HIV/AIDS - Multi-Country HIV/AIDS Program (MAP), and USAID PEPFAR and President Bush Malaria Initiative have been presented as examples of long-term strategies to promote health and development through regional partnership involving governments and civic organizations. The integrated concurrent plenary sessions accentuated the need to address gender equity, disease burden and fragmented health care delivery services impacting maternal and child health and internally and externally displaced populations due to war and political instability driven by deteriorating environmental degradation, lack of sanitation and chronic drought.

The panelists agreed that the solution for the Horn of Africa is to engage in peaceful dialogue, promote partnership and collaboration at regional and country levels. There are common cultural, social, economic and religious underpinnings that can propel these countries to collective actions, cooperation and partnership to change from confrontation to cooperation and from conflict to dialogue and from violence to peace and co-existence. While there were cases of successful examples of partnership and collaborations in many other

development sectors, there were several major issues which need immediate consideration in the short and long run development framework as follows:

- The threat to health and development is directly linked to high infant and maternal mortality rates, inadequate access to primary care for the majority of the population, high morbidity and deaths due to HIV/AIDS, Malaria and TB, lack of drugs, food security, malnutrition and lack of political will.
- Some of the successful policies were the product of collaborative activities involving twining approaches involving academic institutions, public and private foundations in the region and their counterparts in high resource countries such as the United States of America.
- The endless dependence on food aid and external assistance to relieve the region from hunger and famine seems to produce negative impact on sustainable development, especially in regions that lack political stability, perennial armed conflicts, endemic displaced populations, as well as weak and corrupt governance, especially in the so called “failed states” in the region.
- Given the fact that donor countries face competing demands for humanitarian assistance from other regions such as Darfur, Iraq, Afghanistan, Western and Central Africa, the compassion fatigue for palliative measures to prevent man-made and natural disasters are expressed in continuous erosion of funds by donor countries and private charities.
- The flight of expertise and trained human resources to lucrative and safe havens in Europe, America and Southern Africa is the underlying cause for stagnant capacity and fragmented infrastructures in underserved areas.

I. MULTILATERAL ONGOING INITIATIVES IN THE HORN OF AFRICA

The World Bank:: The World Bank has 29 countries + 4 sub-regional projects. It has committed \$1.12 billion for five years (2001-2006). Of this \$800 million was disbursed to fund more than 60,000 civil society subprojects. The Bank has laid the groundwork for other donors. The second phase prepared or being prepared in 5 countries includes Eritrea and Ethiopia.

☐ The Basics: The Bank supports key elements for national action and ownership, viz. the “Three Ones”. One national AIDS Strategy, One national AIDS coordinating mechanisms and One AIDS monitoring and Evaluation System. The participants in joint reviews include Ethiopia, Kenya, Rwanda.

☐ Short Term Attention: This strategy allows the Bank to join Multi-donor pooled funding support (ex. Malawi); provide substantial, flexible, streamlined resources; engage with civil society, including the private sector and faith-based; treat HIV/AIDS as a multi-sectoral problem (ex. education, defense, transportation) and learn-by-doing approach should form new projects and programs.

☐ New WB HIV/AIDS Initiative:

- Member States: Djibouti, Eritrea, Ethiopia, Kenya, Somalia, Sudan and Uganda (HQ in Djibouti).
- Grant Recipients: Inter-Governmental Authority on Development (IGAD) – 4 Year Program
- Expected implementation: Begin in early 2007 and will build on work done under the existing Grant
- Partnership: Member countries, UNAIDS, UNHCR, African Development Bank, bilateral: HIV/AIDS Support to Refugees,

☐ Initiative Components

- 1: HIV/AIDS Support to Refugees, Surrounding Areas, IDPs, Returnees and Cross-Border Mobile Populations
- 2: Support to Regional Health-Sector Collaboration
- 3: Project Management, Capacity Strengthening, Coordination and M&E

☐ Deliverables:

☐ Cross-border Monitoring and Evaluation

☐ Program Management and Coordination

☐ Share lessons learned among the countries

☐ Annual reviews of programs to improve implementation, coverage, and to fill persistent gaps

☐ Capacity enhancement of financial management and program coordination.

Next Step: World Bank

☐ Horn of Africa Task Force (TF) meeting in Hargeisa November 13-15, 2006 (develop annual action plan for TF, and agree on operational structure)

☐ World Bank preparation mission with other partners in January 2007, in close collaboration with TF.

☐ Horn of Africa Initiative to be ready by mid 2007, adding value to other initiatives in the region, an approach lead by the countries, involving all key stakeholders.

II. PRESIDENT MALARIA INITIATIVE (PMI) – USAID

President Bush announced in June 2005 that the U.S. Government will invest \$1.2 billion over five years to fight malaria in 15 sub-Saharan African countries. Ethiopia has qualified for the assistance in FY 2007. The other African countries are Malawi, Mozambique, Rwanda, Senegal, Tanzania, Uganda and Angola.

PMI is a collaborative U.S. Government effort led by USAID, in conjunction with the Department of Health and Human Services, Centers for Disease Control and Prevention, the Department of State, the White House and others. PMI assists national malaria control programs to achieve the President’s goal of cutting malaria-related mortality by 50 percent in target countries. Its goal will be achieved by reaching 85 percent of the most vulnerable groups – children under five of years of age and pregnant women – with proven and effective prevention and treatment tools. PMI funding in fiscal year 2006 is \$30 million, and it is expected to increase to 135 million in fiscal year 2007, \$300 million in each of fiscal years 2008 through 2010. PMI uses comprehensive approach to prevent and treat malaria. The initiative’s support for key tools: Spraying with Insecticides (“indoor residual spraying” or IRS) in communities; insecticide-treated bednets (ITNs); lifesaving drugs and treatment for pregnant women (Intermittent Preventive Treatment” or IPT). PMI coordinates with national and multilateral partners, including the Global Fund to Fight AIDS, TB and Malaria;; the World Bank Malaria Booster Program, Roll Back Malaria Partnership, nongovernmental organizations (NGOs), including faith based and community groups, and the private sector.

RECOMMENDATIONS:

1. Recognizing that health is an important component of development and precondition to complete state of physical, mental and social well being including and not limited to peace, stability and economic progress;
2. Recognizing that emerging infectious, communicable and sexually transmitted diseases such as Malaria, TB, HIV/AIDS are threatening the life of peoples of the Horn of Africa and constitute major killers of millions of young and adults in their prime age, as well as women and under five children;
3. Recognizing that health promotion, education, prevention and treatment cannot be achieved without strengthening academic institutions and human resources capacity building and revitalizing fragmented and decaying health delivery services;
4. Recognizing that multisectoral development strategy can only be achieved by initiating collaboration and partnership with national, regional and international technical and financial assistance using twining approaches between US learning centers and their counterparts in the Horn of Africa;
5. Recognizing that the peoples of Africa are exhausted from recurrent drought, famine and armed conflicts driven by ethnic and clan based warfare leading to failed state situations;
6. Recognizing that peace and development are preconditions for rational planning and strategies for comprehensive development and complete state of health;
7. Recognizing that children and women are the most vulnerable segments of the population and prevention of early death is within the reach of modern technology, medicine and indigenous expertise;
8. Recognizing that the flight of health professionals in search of lucrative jobs and relatively safe environments deprived the poorest of the poor from access to health care and fundamental human rights to be free from unnecessary disease burden expected to be delivered by culturally competent health

professionals educated at the expense of the national treasuries. But, these professionals cannot be blamed; since it is the responsibility of the states to enable the institutional environment for reversing the brain drain of health professionals. There are “push”(bad government policies and corruption) and “pull” (better opportunities and salaries) factors which are equally important.

9. Recognizing that there shall be incentives to promote brain gain and prevent hemorrhage of the scarce human resource;

O Resolved that the Conference adopt the following recommendations, among other lessons learned from pilot and upscale projects supported by multilateral, bilateral and national initiatives, the aim of which is to share and promote collaborative models.

O The health initiatives should be viewed as an integral component of plans and strategies embedded in the national framework and priorities suitable for each country of the Horn of Africa. The purpose of sharing resources and technologies must be driven by common understanding, tolerance and peaceful accommodation of diverse political, cultural and religious orientation impacting the health status of the people of the Horn of Africa:

O Action Plans

- Be Strategic in terms of what you want to do with regard to health systems (management, infrastructure, drugs, protocols) and disease initiatives (AIDS, Malaria, TB, Childhood Illnesses)
- Get the data/information so it is Evidence Based
- Develop a Results-Driven, cost based action plan
- Consider a phased approach which is realistic (2 years; five years)
- Approach non-traditional large donors to finance the technical assistance, such as the Gates Foundation, even the Clinton Foundation

O Development Assistance Framework

1. Develop Strategic national frameworks responding to nature of epidemic, whether generalized, concentrated, or mixed
2. Develop transparent and performance and results based disbursement standards
3. Scale up good practices, including those of civil society
4. Balance prevention and treatment.
5. Develop more explicit gender dimension including the “feminization” of HIV epidemic in Africa
6. Integrate WHO Roll Back Malaria and TB Initiatives with World Bank Global Fund, U.S. President’s Malaria Initiative (PMI), and MAP with public and private sectors nationally and regionally.
7. Promote civic and nongovernmental initiatives in conflict resolution and people-to-people diplomacy in all health care initiatives nationally and regionally
8. Targeted approach--where appropriate-- to vulnerable or neglected groups and high risk groups (refugees, IDPs, ex-combatants, etc)
9. Establish centers for health research and development through collaborative and partnership initiatives

O Implementation Phase

1. Employ multi-Sectoral Response to disease control and treatment
2. Apply exceptional and flexible implementation arrangements
3. Develop flexible and diverse national AIDS capacity building
4. Give priority to demand-driven local response initiatives
5. Enhance new decision making paradigms such as bottom-up and top-down comprehensive approach as applicable
6. Develop national framework and strategies that emphasizes learning-by-doing and value accountability and transparency to achieve balanced development and democratic culture.

4. INFRASTRUCTURE AND WATER DEVELOPMENT

The Impediments to Building the Common Infrastructure in the Horn of Africa

BY

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Synopsis:

The infrastructure affects growth and development. It assists in coping with population growth, in improving environmental conditions, in raising output and in lowering production costs. It also helps to diversify production and to expand trade. Safe water is essential for everything. The provision of energy and hydro-electricity is a must for development. In effect, the infrastructure opens the path to sustained growth. If we relate all this to the Horn of Africa, we will discover that the countries of the sub-region have not made any appreciable headway in building the common infrastructure because of the legacy of unresolved conflicts. Since so many interest groups are also involved in their conflicts, no solution seems to be in sight. Among the conflicts are the territorial disputes between Somalia and Ethiopia, Eritrea and Ethiopia, Djibouti and Somalia, Kenya and Somalia, Djibouti and Eritrea. In a situation where the governments of the sub-region do not therefore even have normal working relationships, to propose that the common infrastructure be built would be either outright disingenuous or naïve. One can write on each conflict. However, since time does not permit such a luxury, this paper will examine in some detail the conflicting stakes of Somalia and Ethiopia to show how irreconcilable their positions have been. It will then present a brief account of the serious internal and external problems which confront the sub-region, and which need to be addressed, and then conclude by making some observations regarding the infrastructure.

Ethiopia's Position:

With regard to the Ogaden Province of Eastern Ethiopia which Somalia claims, Addis Ababa maintains that the province had been an integral part of Ethiopia since the reigns of Emperors Amde Tsion[1312-1342], Dawit[1382-1411], Yeshaque[1414-1429], Zere Yacob [1434-1468], and Sertse Dingil [1563-1597]. Furthermore, Addis Ababa also argues that its dispute with Somalia center only on the demarcation of the borders of former Italian Somaliland and Ethiopia. The northern portion -i.e. the Ethiopia-British Somaliland border, it says, has already been demarcated, and therefore, cannot be a subject for discussion, let alone negotiation. The fact is Ethiopia maintains that its borders with Somalia are internationally recognized, and have been confirmed on ten different occasions from 1897 to 1988. Here are some historical agreements and facts:

1. On July 28, 1897, when the Anglo-Ethiopian Boundary Treaty was affirmed by the British Parliament and duly ratified by Queen Victoria;
2. On June 16, 1908, when the Italian Parliament ratified the Italo- Ethiopian Boundary Treaty of 1897 and the Convention of 1908. Duly concluded, signed and ratified, it legally binds the signatory parties and their successors, either directly or by right of devolution;

3. In 1923 when the League of Nations registered these treaties (art.1, para.3 and art.18), by the very fact of Ethiopia's membership to the League of Nations;
4. In 1934, when the members of the League of Nations accepted the 1908 Convention as the legal basis for solving the Italo-Ethiopian boundary dispute, and when Ethiopia went to war with Fascist Italy (1934-1941) in the defense of the very same province now claimed by Somalia;
5. In 1945, the United Nations registered these treaties;
6. In 1950, the United Nations General Assembly approved the Trusteeship Agreement of 2 December 1950, affirming that Somalia's boundaries with Ethiopia shall be those fixed by international agreements. In so far as they are not delimited, they shall be delimited in accordance with a procedure approved by the General Assembly;
7. In July 1964, when the OAU Heads of State Summit in Cairo adopted the Resolution (AHG/Res.16 (I) on the inviolability of state frontiers;
8. In 1964, when the Non-Aligned Heads of State Summit in its meeting in Cairo also decided that existing frontiers should be maintained;
9. In 1981, when the OAU Heads of State Summit in Nairobi adopted the Recommendations of the 1980 Lagos meeting of the Good Offices Committee, and declared that "the Ogaden is an integral part of Ethiopia."
10. In 1988, when the late President Siad Barre of Somalia signed an agreement in Djibouti with President Mengistu Haile Mariam of Ethiopia renouncing Somalia's claim to the Ogaden.

Somalia's Position:

For the Somali Republic, the dispute with Ethiopia has nothing to do with problems associated with border demarcation. Rather, it is a question of respecting the rights of the people of the Ogaden to self-determination, and of recovering land, which Mogadishu claims, that it "lost" because of the 19th century treaties that Ethiopia signed with the various European colonial powers.

1. Somalia contends that both the U.N and OAU Charters affirm the rights of peoples to self-determination, and that Article 103 of the U.N. Charter on self-determination prevails over rights which Ethiopia claims under treaties that it signed with the various European colonial powers;
2. Somalia accuses Ethiopia of being a colonialist state, and argues that the people of the Ogaden are under alien domination. They must therefore be beneficiary to all the relevant resolutions on de-colonization in order to be able to exercise their rights to self-determination;
3. Somalia contends that it was never a party to these treaties, and as such, it should not be expected to accept them;
4. That such resolutions adopted by the OAU and the Non-Aligned countries refer to new disputes, and not to those which already exist; and

5. That it has registered its serious reservations to such resolutions and therefore is not bound by them.

The Ethiopians have challenged Somalia's position by contending that, to begin with, a state has to have defined boundaries. Since there was no state in history called "Somalia" before 1960, they could not have taken land from a non-existent entity. Ethiopia has also referred to Article 62 (a) of the Vienna Convention on the Law of Treaties, which provides that "A fundamental change of circumstances which has occurred with regard to those existing at the time of the conclusion of a treaty, and which are not foreseen by the parties, may not be invoked as a ground for terminating or withdrawing from a treaty, if the Treaty establishes a boundary." Addis Ababa has also referred to the International Law Commission's Report that was approved by the U.N. General Assembly, which maintains, "that the clean state principle does not in any event relieve a newly independent state of the obligation to respect a boundary settlement and certain other situations of a territorial character established by Treaty."

For Ethiopia, therefore, the right of self-determination cannot have preponderance over the principle of sovereignty, and it emphasizes that Ethiopian Somalis, who live in the Ogaden Province, enjoy the right to govern themselves, to establish their own regional constitution, to elect their own representatives to regional and federal assemblies, and to use their language as a medium of instruction in schools, and in that way, they exercise the right to self-determination. One could also add that if Somalia's views on self-determination are to be taken seriously, it should be the first to recognize the Republic of Somaliland because the majority of its citizens have already voted for independence.

Unfortunate as it is, Ethiopia and Somalia have gone to war five times in the last forty seven years over the Ogaden. Similarly, Kenya and Somalia have also fought three times over the Northern Frontier District. In both cases, the result has been thousands of deaths, destruction of property, and the displacement of millions of people. Is Mogadishu now prepared to renounce its claims to Djibouti, the Ogaden province of Ethiopia, and to the Northern Frontier District of Kenya? Ethiopia and Eritrea fought over a territorial dispute which resulted in the death of close to 100,000 people, in the displacement of millions and in the destruction of property. In this case too, is Ethiopia prepared to give up Bedame to Eritrea? Has Somalia solved its internal problems of national unity to be able to cooperate with its neighbors? Should its neighbors deal with the Republic of Somaliland and Puntland or with Somalia? What would be the reaction of the Ogaden Liberation Front to the construction of a series of roads linking Ethiopia with Somalia? These are all legitimate questions that should be considered when one speaks of building the common infrastructure.

The Inroads of Islamic Fundamentalism:

Islamic fundamentalism which thrives in areas of poverty and destitution has already begun its creeping inroads into the Horn of Africa and has established tentacles throughout the sub-region. The chaos in Somalia, fractured as it is along clan lines, and immersed in inter-clan struggle for power, has made segments of the population and some of their leaders amenable to close cooperation with the fundamentalist leaders of the Sudan, Saudi Arabia, Iran, and Afghanistan, as well as Osama Bin Laden. In spite of the existence of a Transitional Government that has been recognized by the African Union and the United Nations, the Union of Islamic Courts who harbor al-Qaeda members, and who are being bankrolled by Saudi Arabia and other Arab countries, want to establish a fundamentalist Muslim theocracy and to turn Somalia into a safe haven for foreign terrorists.

The Islamists also want to unite Somalia, but Somaliland and Puntland are resisting their attempt to impose a form of Talibanism on Somali Society. Furthermore, Somalia's Islamic leaders have revived the claim to the

Northern Frontier District of Kenya and the Ogaden Province of Ethiopia to be part of Somalia. The situation is complicated further because a recent report to the United Nations Security Council reveals that powers far and near are involved in the conflict in Somalia.

Eritrea wants to get even with Ethiopia by serving the Arabs as a major link between them and the Somalis. Syria and Libya are training the Islamic fighters. Saudi Arabia and Egypt continue to provide military aid. Iran has supplied 125 shoulder-fired surface-to-air missiles. As we can see, the making of Somalia a safe haven for terrorists and Islamic fundamentalists can only complicate matters. Each of the external powers has its own agenda. Saudi Arabia is driven by the prospect of expanding Islam. Egypt wants to get closer to the head waters of the Blue Nile. To that end, Cairo had signed an agreement with the late General Aideded to settle some three million Egyptians in the fertile river basins of southern Somalia.

To help them achieve their objectives, Somalia's Islamic leaders have been soliciting aid and support from their co-religionists including Yemen, Syria, Iran, Egypt, Libya, Saudi Arabia, Sudan, Djibouti, and the U.A.E. Ethiopia and Kenya which support the Transitional Government have legitimate reasons for taking more than a casual interest in what is going on in Somalia. Ethiopia opposes the Wahabist Islamists' expansionist agenda and links with terrorism. As a result, they have declared "jihad" on Ethiopia.

Nevertheless, the governments of Somalia and Ethiopia appear to have defeated the radical Islamic Courts Union by military means. However, the insurrection is on the rise.

In making a public declaration of its intent to fight against the Islamists in Somalia, the regime in Ethiopia has its own agenda. Its public declaration of fighting Jihadists in Somalia may be promoting unintended opening of Ethiopia's doors to Jihadists, Wahabists and Islamic fundamentalists, who have become very active throughout Ethiopia. According to the New York Times, "Fears are mounting again among Christians in Ethiopia about another onslaught from Muslim Fundamentalists. The government led by Meles Zenawi is not only unsympathetic to the church but accommodating to Islamic Fundamentalism."

In 1996, a series of bomb blasts rocked hotels in Addis Ababa and in the eastern Ethiopian town of Dire Dawa. Al-Itihad al-Islami that is based in Somalia, and that has links with al-Qaeda, has been blamed for it. There was also an attempted assassination of President Mubarek of Egypt on June 26, 1995, in Ethiopia. In January 2002, five Somalis who belonged to the Al-Itihad al-Islamiya were sentenced to death by an Ethiopian court for carrying out a series of bomb attacks in the country. These terrorist activities have continued.

Building the Infrastructure:

The countries of the Horn of Africa have complementary resources. Indeed, in an ideal situation, if they were to build the common infrastructure and concentrate on development, the sub-region could be transformed. Somalia's population is overwhelmingly nomadic. It has been observed that the average cow requires annually some 18 sq.miles of land for grazing purposes. Under such conditions, it may be more appropriate to portray the conflict as a conflict that has been driven principally by economic interests and by the effort to control scarce resources. Indeed, the uneven distribution of resources, environmental degradation, drought, desertification, and widespread poverty creates propitious grounds for violence. Hence, economics is overlaid on ethnicity, and economic problems pass either for border disputes or for ethnic and religious conflicts between these countries.

There is a symbiotic linkage between peace and security on one hand, and economic growth and social development on the other. If the sub-region is not to continue being synonymous with violence, hunger, poverty and destitution, ways and means will have to be found to speed up economic growth and social development. In fact, once an atmosphere of trust and confidence prevails, cooperative agreements in different areas could be advanced to pave the way for joint exploration and exploitation of resources for mutual benefit. Perhaps development cooperation may be the way out. It is an approach worth taking. The resumption of trade, communications, and other exchanges between formerly warring parties has been known to ameliorate historical enmities between states. It could be conducted under the umbrella of the Intergovernmental Authority on Development (IGAD). Cooperation in such area as agricultural research, education and public health, forestation, settlement of nomads, integrated rural development, could be tried. The building of roads and the common infrastructure for carrying out even such modest activities will be crucial.

The creation and establishment of transport and other means of communication which link these countries is absolutely essential for effective cooperation. Cooperation in trade should not be seen in isolation from cooperation in other sectors, whether industry, agriculture, energy, or the development of human resources. There may be commodities of which there is surplus production over and above domestic requirements which are at the same time imported from outside. There may also be commodities of which the production in one, small at present because of the small domestic market, would probably increase in proportion to the expansion of the market. According to the IMF, in 1982 for example, Somalia's imports from Ethiopia were valued at nearly 156 million Somali Shillings, while its exports to Djibouti were valued at nearly 3 million. Given a common cooperative policy, and better means of transport and communication, these trade figures can increase considerably because there would be opportunities for trade creation and trade diversion.

If the transport cost of say an Ethiopian product being exported through the Port of Massawa, which is more than 1,000 kms from Southern Ethiopia, can be reduced by 50% through the use of the Ports of Mogadisho or Kismayou in Somalia because of distance and better means of transport, the ultimate effect would be to lower delivery prices, to stimulate volume of sales and hence to increase employment opportunities and the gross national product in both countries. The labor force in all Somalia's ports in 1980, which served 656 ships, was only 2,800. But if Ethiopia were to use them, the labor force could increase substantially, and there will be increased revenue for the central treasury.

In the conditions of the Horn of Africa, it is estimated by civil engineers that on the average, primary roads can cost \$150,000 per km. Secondary roads can cost \$100,000 per km, and feeder roads even less. The building of artery roads or upgrading existing ones should be left to the governments concerned. Our major concerns should be the roads that will open productive lands and that are sub-regional in character.

Let us conclude by observing that even some measure of development cooperation can open possibilities for political accommodation, and once the benefits of cooperation, however limited, are demonstrated, they may have multiplier effects to change perceptions, and open the way for increased cooperation and integration. The envisaged cooperation can assuage internal frictions, minimize external interference, especially that of Islamic fundamentalism in the affairs of these countries, and create propitious conditions to help address various developmental questions, including the overlapping problems of nomadism and incessant drought, and facilitate the wide-spread mobilization of resources for growth and development. As the economies of these countries evolve into modern economies, the interdependence between the different regions for sources

of supply and markets can be enhanced, and that would contribute to peace and stability. In time, the border would lose its significance and meaning.

Summary: Infrastructure and Water Development Panel

It was reported that the countries of the Horn of Africa sub-region have complementary resources, and that the disparity in factor endowments can be compensated for by some arrangements. Having presented the conflicting positions of Ethiopia and Somalia on the status of the Ogaden province of Ethiopia that Somalia claims, the paper indicated the complexity of the problems that have negatively affected their relations. It also draws attention to the sub-region becoming a haven for terrorists.

Under such circumstances, if ever the common infrastructure is to be built, and to open the possibilities for further cooperation, it was recommended that the causes of the conflicts be addressed. With regard to water development, it was also reported that water scarcity has become one of the major obstacles to sustainable development. Its quality is also poor. The total amount of renewable annual fresh water ranges from 110km³ in Ethiopia to 2.3km³ in Djibouti, 8.8km³ in Eritrea, and 13.5km³ in Somalia. Yet, there is sufficient quantity of underground water in the sub-region that can be exploited with simple technology. To that end, it was recommended that a comprehensive sub-regional development plan be worked out.

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WATER SCARCITY IN THE HORN OF AFRICA AND ITS DEADLY CONSEQUENCES

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ABSTRACT: In general, the Horn of Africa countries are arid or semi-arid with limited precipitation. Rainfall is extremely erratic and occurs in a few months of the year, and within those months, it usually occurs in days causing devastating floods that are usually followed by drought (abundance versus scarcity). For the rest of the year, the Region is dry and there are few perennial rivers when evapo-transpiration is 2000 mm/year...annual rainfall ranges from 220mm in Djibouti to 848mm in Ethiopian highlands. Additionally, available surveys show that the Region's water quality is poor due to human misuse and animal wastes. Conductivity, fluorides, salinity, dissolved solids, etc. are high (conductivity up to 11,000 mS/cm) and the few bacteriological total coliform screens available are >200/100ml mostly due to animal pollution (world standard zero) making present drinking water from lakes, wells, man-made catchments and springs unfit for direct human consumption. Today, access to clean water in the region is one of the lowest in the world, below 30% for urban areas and for rural communities which make over 60%, access spirals to fractions when access to sanitation is extremely low. Consequently, many waterborne diseases are rife, endemic and epidemic in the region raising the morbidity/mortality rate of the people and hundreds of thousands, mostly children, die yearly.

Water scarcity, therefore, is a major deterrent to sustainable socio-economic development; and meeting the Millennium Development Goals, (MDGs, whether on poverty, health, environment or hunger requires action on water! (World Water Magazine Feb. 2005), and will remain elusive unless "a benevolent world community" comes to the rescue!

INTRODUCTION

The Horn of Africa countries are arid or semi-arid with limited rainfall, yet large amounts of water annually flood out to the sea. While some of this floodwater is necessary to flush salt and other harmful products out of the system, in many cases, floodwater is not fully utilized. This phenomenon is characterized in the region where annual precipitation occurs only in few months of the year and within those months, it occurs in no more than an aggregate of few weeks. For the rest of the year, the region is dry and there are few perennial rivers while evapotranspiration is estimated at 2000 mm per year.

Despite the sporadic and temporal distribution of precipitation in the region, one way water supply can be controlled to match demand is through storage. This is true whether the demand is for natural processes or human need. In natural systems, precipitation may be intercepted by vegetation and temporarily stored on plant surfaces and on the soil surface. Aridity of the region does not favor this. When water infiltrates the ground, it is stored in the soil and may percolate to groundwater storage. On land, surface water is stored in watercourses and other water bodies.

However, with present technology, man can create and enhance water storage by such activities as water conservation, tillage, constructing of dams and dikes to impound water and artificially recharge groundwater. And regardless of method or type of storage, the purpose is to capture excess rainwater and avail it at times of need. Considering the large amounts of rainstorm runoff that flood out to the sea yearly, utilizing simple water storage technologies alone could significantly reduce water scarcity in the region. These actions could at least partially help the region meet the Millennium Development Goals (MDGs), the target set by the UN, that call for, among other things, halving the number of people without safe water and halving those without sanitation by 2015.

WATER RESOURCES AVAILABILITY IN THE REGION

In general, the Horn is considered freshwater scarce (<1000M3 per person per year FAO) with few perennial rivers, though available information is limited. When it is available, it is scattered and needs enormous energy to gather. It is estimated that annual average rainfall of the region is very low (except in the Ethiopian Highlands 884mm), while potential evapotranspiration is estimated to be 2000 mm/year.

According to EarthTrends Environmental Information/World Resources Institute, Djibouti's per capita (IRWR, 2001) is 460 M3, Eritrea's per capita (IRWR, 2001) is 701M3, Ethiopia's per capita (IRWR, 2001) is 1,666M3 and Somalia's per capita is (IRWR, 2001) 628 M3.

And according to FAO Water Report 23..."Review Of World Water Resources By Country", Horn of Africa's Renewable Water Resources) can be roughly summarized as follows:

Country	Total Annual Renewable Freshwater (Km3)*	FAO/AGLW model to assess IRWR ...(Km3/Y)
Ethiopia	110	108.7
Djibouti	2.3	0.05
Eritrea	8.8	1.6
Somalia	13.5	0.7

*Source: Population Action International Total 1995

Source: FAO/AGLW model to assess IRWR (based on rainfall, evapo-transpiration and calibration on flow measurement); Revision is by Jean Margat in 2001 & 2005; by IWMI 2000; and by FAO/AQUASTAT1995 and 1997. (With the exception of Ethiopia, national figures are much higher than those of the model). NB: Figures in FAO/AGLW model are oversimplified. Reported National Figures are much higher in most cases. Improving the model by nationals or experts is highly encouraged. Information can be sent to Aquastat@fao.org The Region is prone to devastating droughts, followed by floods (the September 2006 Ethiopian floods a case in point) which often flush out junks of productive lands to the sea. Recurrent droughts often severely affect human and animal life that any sign of them are generally received with fear and worry.

The region experiences different types of scarcities: (A) Natural water scarcity due to its unfavorable climate. The region is generally arid or semi-arid (B) Demographic scarcity because of its huge livestock populations which often pollute available resources (dirty water is similar to one that is not available) exacerbating scarcity and (C) Technical scarcity because of its low level of development. These problems are further compounded by the lack of financial resources, political turmoil and lack and exodus of trained manpower resources (the brain-drain problem). Consequently, water scarcity is a major deterrent to sustainable economic development in the whole region. Because of lack of development in the Horn, where the majority of the people are agro-pastoralists or live in rural areas, access to water is limited to rainfall for both human and animal use and in most cases people have no access to safe water especially in dry seasons. When available, access is limited to only a small percent of the population mostly in urban areas. And for rural communities, it is extremely low. Access to sanitation is even worse.

In addition, due to the arid climatic conditions, the region is often hit by droughts and famine that are usually followed by torrential rain floods that devastate the landscape. These problems are exacerbated by overgrazing, salinization and water logging all of which cause extensive soil damage. In addition, human

activities have a damaging effect on the environment often worsening the situation exacerbating droughts and natural disasters. In Somalia, for instance, uncontrolled cutting of Acacia forest for the export of charcoal and firewood are badly damaging the rangelands. From 1997 to 2003, it is estimated that charcoal production has increased by 70%. Like in many parts of the region, such as the fertile lands of the south, soil erosion is extensive and has devastating impact on agricultural land. Erosion has also been accelerated due to land that has been left fallow. Persistent crop pests are common, affecting quantity and quality of the harvest. High incidence of malaria and tuberculosis, which are the two main human diseases, occur during the wet season. In the rural areas, domestic water supply is derived from surface dams, shallow wells and springs. However, to meet the demand, the region needs to utilize water-harvesting technologies. This can be done by capturing more water above the ground during the wet season and allowing it to percolate down into aquifers or store in dams and reservoirs and then pump it out to provide water in the dry season. Seasonal torrential rainfall, in catchments, which are often filled by one run off, could further water availability. In urban areas water availability is occasionally enhanced by rainwater collection from house roofs made of tiles, slates, corrugated/galvanized iron and aluminum sheeting. So, it may be helpful to arrange down-pipes that would flush foul which can be diverted from the clear water container and collected to run waste.

UN studies on groundwater show that there is sufficient quantity of water to cover the domestic needs of the whole population, but governments must establish strong water management and conservation practices to further water availability while avoiding misuse of water sources that are heavily devastated by human and animal pollution. So, rural Horn of Africa's communities mostly depend on four sources of water: The shallow wells, the open water holes, pools that hold rainwater, and man-made water catchments and boreholes that serve most towns people. Most villages depend on rainwater storage tanks and sub-surface dams. Today, livestock and agriculture are the two major traditional socio-economic activities of the region. In this region where water is of vital importance, communities fight over access to land and water resources. However, development of water wells, dams and catchments is becoming increasingly common though provision of water sources must be carefully controlled because doing that may cause immense environmental degradation due to the potential influx of huge livestock that may expose topsoil making it susceptible to erosion after heavy rainfalls.

DROUGHT, WATER QUALITY AND THE HEALTH DIMENSION:

- Cloudless skies over the Horn of Africa are always a threat to the health and well-being of millions of people in the region.
- Severe drought conditions plague the Horn, Eritrea, Ethiopia, Somalia and Djibouti, where the difference between life and death can be decided by the weather.
- Widespread crop failures and political instability disrupt life, making a difficult situation worse. With no place to graze or water their livestock, farming families are forced to migrate in search of better land.
- As livestock perish, families are robbed of their primary source of food and income.
- Many are reduced to eating once a day and malnutrition reaches dangerous proportions, especially among children, the elderly, pregnant and nursing women....
- In rural areas, women and children walk hours just to collect water.
- When available, people collect water from shallow, unprotected ponds which they share with animals or collect water from shallow wells. Both of these sources are subject to contamination as rain water washes waste from surrounding areas into the source.
- Women and girls carry large clay jugs of water back to their villages. These jugs can weigh up to 40 pounds!

- Often, young children are left home by themselves while their mothers and older siblings collect water when their fathers are tending to animals or trying to earn money in jobs outside (19).

The causes of this gloomy scenario of the Horn of Africa are multiple: (A) Natural water scarcity due to unfavorable climate (B) Demographic pressure because of its huge livestock populations which often pollute available resources, (dirty water is similar to one that is not available), and hence this exacerbates natural scarcity (C) Technical scarcity because of the region's low level of development. These problems are further compounded by the lack of financial resources, political turmoil and lack of trained manpower. In fact, available water sources are often polluted mostly due to misuse and discharge of wastes into waterways. Where proper sanitation facilities are lacking, water borne diseases are rampant, endemic and epidemic and often spread rapidly. This is because untreated excreta carry disease organisms that wash or leach into freshwater resources contaminating drinking water and food. According to well-documented reports, one gram of feces of a healthy person is estimated to contain no less than 10,000,000 viruses, 1,000,000 bacteria, 1,000 parasitic cysts and 100 parasitic eggs.

It is unfortunately common that sewage generated by houses and runoffs from pit latrines or septic tanks often wash into water sources reducing available water quality. This is because water, like blood, is subject to degradation and when we drink polluted water, we are building, over a period of time, the basis for sickness or diminished health. In fact, use of contaminated water gives rise to a myriad of waterborne diseases, creating epidemics. So, in the region, diarrhea alone claims hundreds of thousands of deaths per year, mostly children as water quality and health go hand in hand. In fact, scientific studies show that water has a profound effect on our health because there is a relationship between the quantity and quality of water supplied and sanitation and human health. And according to a recent BBC report, "for many third world people, water is still a deadly drink". According to Karin Strohecker of Reuters, worldwide, an estimated 4,000 children will die from unsafe drinking water and poor sanitation a day! Today, according to UNDP Human Resources Development Report 2005, Horn of Africa water quality versus child mortality is as follows:

ACCESS TO CLEAN WATER VERSUS CHILD MORTALITY IN THE HORN OF AFRICA

Country	Latest Year On Record	Child Mortality before 5th birth day
Ethiopia	2003	169 per 1,000
Eritrea	2003	85 per 1,000
Somalia	2003	225 per 1,000
Djibouti	2003	138 per 1,000

Source: UNDP Human Resources Development Report 2005

Moreover, according to Earth Trends International, the need for water and sanitation is severe in the Horn of Africa. Only a tiny fraction of the population has access to an improved water supply and an even tinier fraction of the population has access to adequate sanitation services. This fact is especially more pronounced in rural areas and there have been recurring droughts for the last 20 years which are often followed by food shortages. Along with limited food supply during times of drought, water-related diseases are rampant. Surface water sources such as springs and ponds dry up. What limited water sources remain become heavily contaminated by environmental waste, such as human and animal excreta which is washed in when the limited rains do come.

Stagnant water also serves as a breeding place for mosquitoes. In this region, in addition to being at risk for contracting diseases through drinking dirty water, there is another risk at times of drought. It is common that people do not get enough water to bathe regularly. As a result, people especially children, suffer from scabies and eye infections (trachoma) as hygienic practices dwindle simply because there is no water to combat.

MDGs CAMPAIGN TO IMPROVED WATER AND SANITATION COVERAGE IN THE HORN

Despite the 1980s International Decade of "providing safe drinking water and sanitation services for all mankind", the Horn of Africa today has one of the lowest coverage in safe water and sanitation services and, though it has made impressive achievements, provision of enough safe water for most of the people of the Horn of Africa remains elusive. Today, few international projects in the Horn of Africa address water shortage problems or control of waterborne diseases. Improved, inexpensive and simple drinking water technologies must, therefore, be made available if safe water and sanitation coverage for the region is to improve and if the MDGs promises are to be at least partially met. Present safe water and sanitation coverage of the region is as follows:

Improved Water & Sanitation Coverage for Horn of Africa Countries (WHO/UNICEF 2002)

Country	Improved Water Coverage	Sanitation Coverage	Live urban	Live rural	Urban covered	Rural covered
Ethiopia	15%	85%	81%	11%	19%	4%
Djibouti	83%	17%	82%	67%	55%	27%
Eritrea	20%	80%	72%	54%	34%	3%

Somalia	34%	66%	29%	27%	47%	14%
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Source: WHO/UNICEF August 2004

According to UNICEF, access to safe drinking water is estimated by the percentage of the population using improved drinking water sources. Similarly, access to sanitary means of excreta disposal is estimated by the percentage of the population using improved sanitation facilities both of which have direct effect on human health. So, in the region today, there is a high need to: build sustainable water supply systems in the urban and rural areas; ensure access to both services for most vulnerable and poor members of communities; carry out specific social mobilization campaigns such as hygiene education; introduce hand-washing practices in schools; and train people on how to safely store household water.

Additionally, there is a need to support governments and local administrations in formulating policy on all domestic and related water supply sources; help improve the quality of planning, implementation and supervision of water and sanitation projects. There is a need to help in all activities that should focus on rehabilitation and/or construction of water supply services, hygiene and sanitation services promotion.

Private sector investment and management of the water and sanitation sector must be encouraged; advocacy efforts and extensive community involvement at local government levels must be further enhanced. On-site training on pump and generator maintenance must take place in all zones in conjunction with construction of new water sources and rehabilitation of old facilities. Likewise, there is a high need to provide latrine facilities for the communities in the region and create technical teams who devise cost-effective ways of promoting behavior change. People must be trained on ways to improve personal hygiene and environmental sanitation at the household and community level. Training in the operation and maintenance of existing water sources and sanitation facilities can best be achieved by training school teachers in hygiene education by including sanitation and hygiene programs in the school curricula. In other words, the region's overall environmental sanitation and hygiene program must be given a priority.

In urban and rural areas, sanitation tools (shovels, wheelbarrows, rakes and brooms) must be distributed to assist communities in cleaning up their environments. During the cholera 'season' (cholera outbreaks normally occur from December to June annually), there is a need to provide disinfectants like chlorine to susceptible areas and train communities on how to prevent outbreaks. Training school children would help spread the know-how of combating waterborne diseases. In short, there is an absolute need to realize that international organizations provide resources and training programs and delegate indigenous community professionals to carry out projects themselves. This is because one major problem in most internationally financed projects is that a major part of project costs are consultation fees, salaries and, when applicable, financing services charges by the financing organizations.

The international community should realize that Africa in general and the Horn of Africa in particular are in no need of more loans simply because financial debts are already a major burden to the continent and region causing devastatingly untold financial pain and suffering!

In conclusion, despite some encouraging signs, the region is far from meeting the international humanitarian organizations' goal of delivering the promises of the Millennium Development Goals. Therefore, a far more benevolent world community, a world community that should fund local projects by closely working with the private sector; community-based organizations and non-governmental organizations (NGOs), needs to come to the rescue. Only such means could lift the region from its current debilitating poverty; rampant water-related diseases and help achieve the provisions promulgated in the MDGs program.

SUMMARY

- Water is plenty in nature as the hydrosphere covers over 71% of the earth, yet less than 1% of freshwater is accessible for direct use.

- Unfortunately, the natural uneven distribution of water worldwide places the Horn of Africa at a disadvantage as its average annual rainfall is low with few perennial rivers.
- The Horn of Africa experiences different types of scarcities: (a) Natural water scarcity due to its unfavorable climate (b) Demographic pressures because of its huge livestock populations (c) Technical scarcity because of its low level of development.
- Fortunately, according to UN studies, there is sufficient quantity of groundwater in most areas of the region. With simple technologies, this can be exploited.
- In addition, the region can establish rainwater harvesting techniques by catching more rainwater to replenish the groundwater; capture more water above the ground during the wet season and allow it to percolate down into aquifers or store in dams and reservoirs and pump it out to provide water during the dry season.
- Safe water and sanitation services are lacking in the region due to inadequate assessment and underdevelopment of water resources, lack of technical and institutional infrastructure as well as lack of investment in water resource development (UNEP).
- Records show that few people in the Horn of Africa region have access to clean water and almost none have access to sanitation.
- Today, the use of contaminated water gives rise to waterborne diseases, creating epidemics. Diarrhea alone claimed about 100,000-210,000 people, mostly children, in 1998. 308,000 people died from wars in Africa; but more than 2 million died of diarrhea disease alone (a water-related disease).
- Lack of basic health services, education, food supplies, shelter, water and sanitation services are leading to prevalence of preventable infectious diseases in the region.
- There is a dire need to improve water quality, sanitation and personal hygiene which can reduce the spread of many diseases.
- Finally, even though provision of good human health, safe water, sanitation, hygiene and education must be considered as a basic human right, achieving such rights remains elusive for the people of the Horn.

SUGGESTIONS ON HOW TO OVERCOME WATER SCARCITY IN THE HORN

Water Scarcity In The Horn Of Africa Can Be Overcome By:

1. Developing comprehensive regional master plans for sustainable water strategies for all basic human and livestock requirements
2. Exploring ways to acquire simple, inexpensive and effective technologies for the exploitation of groundwater
3. Establishing rainstorm runoff storage facilities such as dams, water catchments, reservoirs, while at the same time carefully preserving, national watersheds and the environment.
4. Promoting self-help reliance schemes in water development and water conservation programs at local and national levels

5. Protecting available water resources from animal and human pollution that wreak havoc on public health by polluting available supplies. 20% of the children in the region die before their 5th birthday and people suffer from parasitic infections from human and animal excreta wastes.
6. Fully utilizing urban water-harvesting techniques
7. Acquiring modern techniques to control livestock overgrazing.
8. Prioritizing formulation policies and measures to ensure adequate and clean water sanitation practices including the safe disposal of wastes and garbage.
9. Establishing massive, national training programs for both rural and urban communities and educating people on water conservation techniques
10. Raising community awareness about the role human and animal wastes and water scarcity play in the propagation of poor health. According to WHO, 80% of death and disease in Africa can be linked to water-related diseases.
11. Encouraging gender participation in community leadership especially in the communal water and sanitation sectors
13. Educating the public about the advantage of sound hygienic and sanitation practices so that they break away from their traditional habits.

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5: EDUCATION, SCIENCE, AND TECHNOLOGY PANEL

There were 3 presenters at this workshop. They were: Dr. Dereje Agonafer, The University of Texas at Arlington, Dr. Wole Soboyejo, Princeton University, Dr. Guebre X. Tessema, National Science Foundation. The participant's presentation and recommendations for two of the presenters is summarized individually. In the future, this will be expanded to include inputs from faculty from Horn Universities as well as experts from around the world.

Professor Agonafer's input: Professor Agonafer divided his presentation into two parts: education and technology. The major focus was education. While the application is primarily engineering, the ideas are equally applicable to other fields. The following is a summary of his presentation and recommendation:

Education: K-12 Education: Roadmap – at an early age, students should clearly be informed about roadmaps leading to a career in a particular field. These roadmaps, in the form of posters, should be placed in a visible area so young people do not have to dream about a career without knowing a viable path on how to get there. For example, in order to study engineering, it is important to have a focus on math and science.

Once again, a student will have to be on track to take calculus and physics in high school in order to have a good chance of having an engineering career. Unfortunately, many children are disqualified from such considerations early in life based on the choices that they make regarding course selections. Children and parents should understand the ramifications of course selections as it relates to career choices.

Guest Lecturers – it is important to bring the workforce into the classroom to help make the classroom teaching exciting and practical. The guest lecturers could come in at a juncture in the course where application needs to be discussed. As an example, a mechanical engineer could come and discuss about aerodynamics during a classroom lecture on Newton's Law in a physics class. As many as 8 guest lecturers a year is recommended.

Video Broadcasting – At The Nobel Laureates Legends Reception held at a recent conference in Texas on nanotechnology (http://www.nanotx06.com/nobel_legends.php), 6 noble laureates discussed many issues including education. During the panel discussion, it was stated that the old adage "A Picture is Worth a Thousand Words" can be expanded to "A Video is Worth a Million Words." With the ever increasing speed of video streaming and corresponding low cost, it is possible to include multi-media in providing education at all levels. These videos can be information that is readily available on the internet or some that can be made by volunteers. DVD's are very cheap (about few cents each) and can be easily made by volunteers across the nation or world. http://www.lv-em.com/product_whosusing.html

At Howard University, Washington, DC, "Dr. Gary Harris had this enthusiastic idea – why not make a lab that showcases nanotechnology research, and put it on a mobile van that can be taken right to where people can be educated about the advances and promises of nanotechnology. Crazy? We are pleased to introduce you to the Nanoexpress, the mobile lab that includes an AFM, a chemical handling section, a furnace and, of course, an electron microscope. Well, which electron microscope – TEM and SEM - would you think fits in a mobile van? Right, there's a fully functional LEVM5 right inside the Nanoexpress." The above program can also be video broadcast to make it available to young children and make them enthusiastic about science.

Critical Thinking: It is really vital that students are taught the value of questioning all facts and thinking critically. Every class should have a "critical thinking" component. A teacher's role should be as much facilitating and inspiring as it is presenting facts. Children should be encouraged to question their teachers no matter how uncomfortable the teacher or student feel about it. It then becomes an educational process for all.

Technology complemented classes – as an example, use TI-89 to teach differential/integral calculus, differential equation, calculus based physics, etc. One may argue that students need to differentiate and

integrate without using a calculator. It can be argued that once a student learns the fundamentals well, the technology will in fact enhance and speed the learning process. The calculators can also be used for graphing purposes so students can visualize different functions and especially in an application format.

The MIT-Africa Internet Technology Initiative (MIT-AITI) – (<http://web.mit.edu/mit-africa/www/about/vision.html>) “is an innovative program started by MIT students to integrate computers and Internet technology into the education of students in African schools. The program uses innovations such as cutting edge programming tools and free open-source systems to introduce students in Africa to the Internet, and to equip them with skills that will allow them to be creative and resourceful. Given that information technology carries the potential to empower people around the globe with knowledge, African students need to be equipped with the tools and skills needed for the development of information technology. The vision of MIT-AITI is not only to teach students in the classroom, but also to have an impact on the participating schools and communities.

In the past years of the program, students have succeeded in getting jobs in their local IT industry. They also have been involved in web development for local community initiatives. The program aims to serve a wide audience across gender and income levels. Finally, MIT-AITI has succeeded in improving the quality of education at the schools by teaching African teachers and equipping them with the necessary knowledge set, thus enabling sustainable development of the curriculum at each school.”

Undergraduate Education:

Roadmap – having followed roadmaps at an early age, students are now much better prepared to pursue a specific field of study and be successful. It does not at all mean that they can’t pursue a different career. On the contrary, a broad and carefully designed K-12 education will give the student the freedom to pursue a wide range of potential fields.

Research – all undergraduates should do research whether they get paid for it or not. Even with a small resource, it is still possible to work with a faculty mentor and do some research.

It is also possible for faculties to team up with Professors from technologically advanced countries like the US and perform research that includes undergraduate students. Professor Soboyejo, Princeton University, has established some really exciting programs to involve African Professors to perform research. It is possible to expand on such programs.

Co-op – it is strongly recommended that students get involved in working in a local industry at least a semester but preferably for one year. For example, this will be important for engineering students who can then benefit greatly when they get back and finish off their engineering science courses as these courses are heavily applied.

Critical Thinking – once again, it is really vital that students are taught the value of questioning all facts and thinking critically. In college, one way of achieving this objective is by including open ended problems that require new ideas and creativity to come up with one of several possible solutions.

Guest Lecturers – it is important to bring the workforce into the classroom to help make the classroom teaching exciting and practical. At the college level, it is suggested to have 4 guest lecturers per course.

MIT Open course ware (OCW) – this is one of the most exciting programs that is available from the leading engineering university in the US. These courses can complement classes taught by Professors in African nations and can be used either as a resource material for Professors or as a potential to individualize and customize education for students. <http://ocw.mit.edu/index.html> - a free and open educational resource (OER) for educators, students, and self-learners around the world. It is true to MIT's values of excellence, innovation, and leadership. MIT OCW: The basic features of these resources are: Is a publication of MIT course materials?, does not require any registration, it is not a degree-granting or certificate-granting activity, it

does not provide access to MIT faculty. The reaction to the above program has been overwhelming. <http://ocw.mit.edu/OcwWeb/Global/AboutOCW/worldreaction.htm>

Users from around the world have overwhelmingly endorsed the concept of open sharing of educational materials and information as it is exemplified in the MIT Open Course Ware (MIT OCW) web site. Since it opened to the public on September 30, 2002, users from more than 215 countries, territories, and city-states around the world have visited MIT OCW. Utilizing our Feedback Form, educators, students, self-learners, and MIT alumni have sent us more than 25,000 email messages, recognizing MIT's leadership in providing free and accessible information on the Web. Read what MIT OCW users are saying about this bold MIT initiative, and about the promise of the open sharing.

Graduate Education: Future – it is important to anticipate future technology trends and look for areas that a nation can make a contribution.

Looking back in the last two decades, several countries such as Singapore, South Korea and Taiwan have made a significant economical gain by focusing on high technology. The fundamental basis of their success is a solid education. See: <http://www.nae.edu/nae/engeducom.nsf/weblinks/MCAA-5L3MNK?>

Recently, “the National Academy of Engineering (NAE) Committee on Engineering Education (CEE) has launched a two-phase vision-casting initiative on engineering in the future and educating engineers to meet the needs of the new era. The first phase of the project, The Engineer of 2020: Visions of Engineering in the New Century engaged a diverse group of stakeholders to the engineering enterprise in a series of activities to gather facts, forecast future conditions, and develop future scenarios of the possible world conditions for the 2020 engineer. The phase one initiative revealed several creative visions of engineering's future, and engaged the participation of key constituent groups, including young people, practicing engineers, and industry and government employers. The phase one report was released on May 17, 2004.

The second phase of the project will build on the phase I visions of engineering to develop strategies and concrete plans for engineering education. A national summit of current and emerging leaders in engineering education will be convened to outline a strategy for ensuring the currency and vitality of 21st century engineering education. The agenda will include a renewal of curricular and delivery models, and a reassessment of institutional policies that will affect the growth and development of engineering professionals.” It is important to read the document carefully. In particular, an area of big growth is biotechnology. Fifty years ago, it was solid state that was a revolutionary technology that has led to a trillion dollar business and has changed the way most people in the planet operate. Now and in the coming decades, Nanotechnology and Microelectromechanical systems (MEMS) will be the new revolutionary technology enabling the production of devices that were too small and impossible in the past and will have a huge impact on future industries.

Mentoring – Faculty from Horn countries can work with counterparts in developed nations like the US on research topics. Again, Professor Soboyejo's model at Princeton is exemplary.

Technology : Alternative Energy – scaleable energy such as solar energy will be an exciting area of study. Water Salination – this will also be a key issue and will almost match energy shortage soon. See CNN Report last year at: http://www.autogrow.com/1_information/1_water_resource/info_water.html

Already there are 80 countries with inadequate water supplies and almost 40 percent of the world's population must struggle daily to try to meet water needs . While a growing world population must meet its needs with a finite amount of water, usable supplies are being reduced by pollution from industries and sewage, waste through leaking pipe systems, and human greed. Nanotechnology- the ability to make new materials will have a huge impact in future technology. For example, new materials such as high-k dielectric is critical to continue following Moore's law in semi-conductor development. Many High-k Dielectric materials are currently under

consideration and Intel is expected to use such a material in their 45nm node. HOA nations can get involved in this area. MEMS – new manufacturing capabilities are now enabling the development of low cost MEMS devices. Such devices can be used for broad applications such as drug delivery. The major cost of such devices (over 70%) is packaging. HOA nations can get involved in such development.

EDUCATION, SCIENCE, AND TECHNOLOGY WORKSHOP

Dr. Guebre X. Tessema

George Washington University

Summary Statement:

The Horn of Africa group should convene a panel of stakeholders, including policy makers from government, local experts and civil society, the Diaspora, donors and other international experts. Broadly speaking, the charge of the panel would be to conduct a study of the status of education, science and engineering in the Horn of Africa countries. The outcome of the panel should be published in a report that would be widely accessible to policy makers, educators and donor countries as well as all other stakeholders. The panel should conduct on-site visits, meetings with the public and other officials using face-to-face meetings and cyber infrastructure. In addition to addressing the specific charge, such a study will plant the seed for the creation of a stable institution such as an East African Academy of Sciences or the Horn of Africa Academy of Sciences, which will study and formulate recommendations concerning strategic issues and challenges facing these countries. This will bring local perspectives in defining development strategies and will truly empower all people of the region with their own destiny.

Background

It is widely known that the Horn of Africa is challenged with recurring famines and regional conflicts, low literacy and widespread poverty. The region is highly dependent on foreign aid. Ethiopia is the second-most populous country in Sub-Saharan Africa. The 2006 UNDP human development index (HDI) Report ranks Eritrea and Ethiopia 157th and 170th, respectively, out of 177 countries.

According to UNDP report, 44% of Ethiopia's 77 million people live below the national poverty line, and repeated droughts have contributed to regular food shortages and famine. Other challenges include stemming HIV/AIDS, reducing discrimination against women, building infrastructure and creating jobs. In light of this situation, it is important to keep in mind that a strategy for human resource development which includes education and training, and science and technology must serve the region with the goal of overcoming the following long term and short term challenges:

- Eradicate extreme poverty and hunger
- Achieve universal primary education
- Promote gender equality and empower women
- Reduce child mortality
- Improve maternal health
- Combat HIV/AIDS, malaria and other diseases
- Ensure environmental sustainability
- Develop a global partnership for development
- Achieve universal primary education

Overcoming these challenges requires commitment and partnership of all stakeholders: the government, the international donor countries, and the Diaspora. Governments seem to be constrained by limited capacity, low domestic revenues and consuming regional conflicts. The countries also receive millions from the Diaspora in the form of remittances.

On the international arena there seems to be a more supportive international aid environment. In Ethiopia alone, foreign aid financed 37% of public expenditure, totaling US \$1.4 billion in 2003. This is in addition to international debt relief.

Another dimension is globalization: Globalization opens up unprecedented opportunities for third world countries including Horn of Africa states in terms of access to the markets of advanced countries and investment. However, success in the global village implies a stiff global competition of people with different levels of human resource development between poor countries like the Horn countries and advanced countries such as the US. Success in the “flat” world requires a very highly skilled workforce that will be challenged by competition from all over the world. This brings us to the issue of human resource development based on education, training and science and technology.

The education and training of a future workforce that is globally competitive at all levels of the enterprise is a crucial and perhaps this is even the most important factor in overcoming the ills of the region. Many broadly accepted indicators show that this is the most important factor that differentiates the most economically developed countries from those at the lowest scale of the index. Possession of raw materials in itself is certainly not the only factor. Statistics from the World Bank presented at this workshop clearly indicate that “... 80% of world wealth is produced by 29 high-income countries, relying on inputs from human resources.” Education and training of the future generation should be designed to equip future generations with a solid foundation in scientific disciplines. It should allow flexibility and adaptability to ever changing market situations. However, education and training for the Horn should also nurture the future generation of scientists and engineers who will empower the region over the natural resources and creation of knowledge based on the rich natural local resources. It should provide people of the region to have their impact on the international agenda.

As stated by Abdus Salam, the late Pakistani Nobel Laureate in Physics in 1979, “In the final analysis it is basically mastery and utilization of modern science and technology that distinguishes the South from the North.” The comments submitted above are a bit too preliminary and I would like to refrain from making a full recommendation concerning a development strategy for the Horn at this time. However, I do concur it is an excellent idea and should be followed through.

The best approach is for the Horn of Africa committee to convene a panel of stakeholders, including leaders from government, local experts and civil society, the Diaspora, donors and other international experts. The Horn of Africa group should draft a specific charge for the panel. In a broad brush stroke, the panel would conduct on-site visits, meetings with the public and private sector officials as well as educators and scientists. Meetings could be face to face meetings and/or using cyber infrastructure. This could be one or two years long study at the end of which the panel will publish a report and recommendations. Such a report will be broadly available to all stakeholders. Funding for such an activity can top \$100K but a specific budget will need to be developed. The proposal is modeled on the recent study of the National Academy of Science and Engineering. The NAS report entitled ‘Rising above the Gathering Storm Energizing and Employing America for a brighter Future’ (<http://www7.nationalacademies.org/gatheringstorm/>).

The report discusses the challenges the US is facing due to globalization and makes recommendations to the US. A similar study for the Horn would be credible and useful. It would have broad acceptance.

It will clear the ground for future cooperation between all stakeholders. In addition it may also be necessary to create the seed for a stable institution such as an “East (Horn) African Academy” which will address long term issues and challenges facing these countries. Such an academy would bring together the best minds of the region and outside the region in providing guidance to all stakeholders independent of which side is the holder of the reigns of power. It will truly empower the region of its own destiny. In conclusion, based on a brief assessment of the prevailing conditions in the Horn, I believe that a study panel with a well thought out charge and timeline is the most important recommendation at this time. It will be instrumental in developing a sound approach to developmental issues in education, science and technology.

Some noteworthy information and ideas to consider

[from *SHAPING THE FUTURE OF PHYSICS IN SOUTH AFRICA, REPORT OF THE INTERNATIONAL PANEL APPOINTED BY THE DEPARTMENT OF SCIENCE AND TECHNOLOGY NATIONAL RESEARCH FOUNDATION, SOUTH AFRICAN INSTITUTE OF PHYSICS APRIL 2004*]

Below we are listing some indicators supporting these views:

Among 192 countries a World Bank study shows that 63 are classified as raw material exporters, and contribute 5% to world wealth. At the other end of the scale, 80% of world wealth is produced by 29 high-income countries, relying on inputs from human resources. East African countries certainly do not belong to latter group neither are they major raw materials exporting countries, at least not yet. Their contribution to the global economy is minimal. They are ranked at the bottom of the poorest countries in the world. With exploding young demographics it is clear that for now their main asset is their human capital. It is therefore crucial to develop this human capital with broad based education which includes not only technological and vocation-based training, but also education that provides a key to thinking about fundamentals, and to dealing with complexity. As stated by Abdus Salam, the late Pakistani Nobel Laureate in Physics in 1979, "In the final analysis it is basically mastery and utilization of modern science and technology that distinguishes the South from the North."

A prominent South African CEO declared in 2003: "In SA we are living in a colonial knowledge economy era. My engineers will produce designs and make progress based on imported Intellectual Property, but I can't re-export that IP. It's the scientists who contribute to IP that is owned by South Africa, and for that reason I employ them. We need to generate unique technology in niche areas." A young student added: "We need to grow, to compete globally, and not just be users. It is very important for us to be trained as inventors."

The report of the international advisory panel on Physics in SA states: "We believe That people originating on the African continent should not be restricted only to problems evaluated by someone else as "relevant"; Africans (including South Africans) should contribute to the global advancement of science."

The economically more successful countries have a greater R&D spending per unit of GDP than is the case for poorer countries, with the "top" countries investing as much as 2% of their GDP in R&D. Unless there is some increased spending in this area, the East African countries will at best stagnate if not spiral down into further poverty. (Actually, we need to include some statistics here. What fraction of the budget do these countries invest in education? We may find out that in terms of %GDP these countries spend a higher fraction of their GDP than the advanced countries.)

World wide, technological regions can be put into 3 categories: "innovators" (10 patents or more per million of population), "technology adopters" and the "technologically excluded", East African Countries belong to the last group and steps have to be taken to get out of this situation.

What can be done?

- Create the environment that nurtures an educational system that liberates the creative minds of the millions of young people.
- Educate the population at all level from literacy to tertiary and postgraduate education.
- Encourage research and systematic study of the environment, biodiversity and raw materials.

- Use the biodiversity as a driver for the nations to become contributing partners in the global enterprise
- Develop cooperation between scientists within the region and with others in similar geographic and socio economic environment.
- Create regional centers of excellence, and user facilities to bring expensive and yet critical expertise to the region as well as tools and infrastructure that cannot be afforded or justified by the needs of one country alone.
- Think of a flagship project that will capture the imagination of all in the region. Like the athletes have done in Ethiopia and Kenya
- Create think tank groups that transcend political hostility and focus on common interest of the region, example, i.e. East African Science Academy.
- Develop attitude that embraces all stakeholders.

In education:

- Build a cadre of educators that can relate to the local population
- Make appropriate use of technology (use opportunities created cyber infrastructure to get access to knowledge at the frontiers)
- Develop partnership with institutions in developed countries.

Specific to governments:

- Relax control on information highway
- Improve connectivity with education and research institutions world wide: Create a dedicated internet broad band backbone for education and research
- Use Diaspora as a resource for leapfrogging into modern education/ research using cyber infrastructure
- Organize East African summer school for math, science, materials science.

6. WOMEN AND SOCIAL DEVELOPMENT

Dr. Hodan Said Isse

Assistant professor, University at Buffalo

1. **Objectives:** The objective of the presentation is to shed some light on the character and the nature of economic growth and development in the Horn. The dismal experience of growth of the Horn and how it has affected the region in general and women in particular will be assessed. While external factors such as increased oil prices, world inflation and recession, recurring famine and a shortfall in exports played an alarming role in declining living standards, this presentation will consider internal factors such as government policies and the lack of security.

2 **Why dismal experience in The Horn?** The performance of the Horn of Africa economy as a whole has not been impressive in many ways. According to 2003 World Development Indicators, poverty and hunger have increased in the Horn with the majority of the population living below the poverty line. Contrary to Millennium Development Goals of the UN in 1995 of reducing poverty, hunger and infant mortality, among others, poverty, malnutrition, food and physical security, war, instability and lack of sustainable economic development characterizes the social, political and economic landscape of the Horn and is on the rise.

3 **Why dismal experience in The Horn?** To understand the dilemma of why once prosperous nations of the Horn are considered the poorest of the poor today while some countries with similar endowments grow so quickly, this presentation scrutinizes the nature and the character of economic development pursued for the past decades. Four factors merit examining and scrutinizing in attempting to understand, evaluate and find solutions to the present and precarious situation of the Horn.

4 **Why dismal experience in The Horn?** 1) What if any of the following economic value has been created or achieved, namely long-term growth, food security, economic and political stability, gender equality and poverty reductions. Did government policies engage in pro growth programs or did they merely squander and impede the riches of the Horn. 2) Which sectors of the economy are prioritized and at what cost? A dichotomy exists in the area such as urban versus rural, agriculture versus industry, rich versus poor, women versus men. One must examine and assess who gained and who lost from the development policies implemented for the past decades.

5 **Why dismal experience in The Horn?** Did government implement policy of self-positive sufficiency in food production and meet people's basic daily food needs or did they just become increasingly dependent on food aid which became a perfect substitute for local food production? Ineffective government policies exacerbate the Horn's ability to feed its people. 3) Who has participated in the development pattern for the past few decades? Women, children, small farm holders, herders and rural economy are disproportionately poor, and since they have no political clout, are greatly underrepresented in political decision making and matters that impact their lives in a positive manner.

6 **Why dismal experience in The Horn?** 4) and finally government policies and institutions are implemented and advanced. Have these institutions and policies been the building or stumbling blocks of the ensuing economic specter of the Horn. First and foremost prerequisite for any development is government's role and ability in creating institutions that are conducive to the stability and enhancement of its people. This role includes a safe environment without wars and violence, an environment where merchants can feel safe that their lives and wealth are protected. It means also a well defined and enforced property right and rule of law.

7 **Why dismal experience in The Horn?** Physical insecurity such as war and violence are abundant and the precariousness of the people of the Horn is now greater than ever. Nothing destroys wealth creation and

peaceful existence like war and violence. Without deeply delving into the market and government failure analysis of the Horn, higher level of wealth can only be created where there is improved governance.

8 Why Dismal Experience in The Horn? Government should engage in activities that can create wealth or increased efficiency. Rent seeking, ineffective policies and wealth extractions waste both human and physical capital. Unchecked government power wastes resources and impairs the living standards of millions of the people in the Horn. Government that does not impede the welfare of all its citizens and engages in mutually advantageous policies, programs and institutions is the type of government the Horn needs.

9 Prioritizing Agriculture is the Remedy for the Chronic Food Shortage: The greatest hope for the countries in the Horn stems from agriculture. A large percentage of labor force earns its living from agriculture. A large percentage of the foreign exchange is also earned from the agricultural sector. While agriculture is the largest contributor to the distortions in developments, unemployment distortions are caused by government policies which are skewed in favor of urban development, industry and elites. Since agriculture has not been developed, a lot of people shifted to the large cities. This has accentuated both increased unemployment rate and GNP, and the share of Gross Domestic Product devoted to agricultural investment has been dwindling. The nations of the Horn have adopted an economic system suffering from an extreme structural dualism that causes social and economic underemployment and incidence of poverty and disparity among the income of the poor and of the rich.

10 Prioritizing Agriculture is the Remedy for the Chronic Food Shortage: In addition to giving agricultural investment a low priority, the Horn increases its reliance on food aid. Not only did foreign aid become a perfect farmers substitute for local food production but it also handicapped agriculture's productive capacity. To make matters worse, governments followed food price policies that appease urban consumers but which consistently discourage farmers and development that translated into lack of self sufficiency in meeting people's basic daily food requirements and often resulted in disastrous food shortages and worsening economic position of the poor, particularly women and children. As a result, the majority of the people of the Horn are food insecure due to distortion in the price of domestic food production relative to food aid, a development pattern that neglected agriculture and rural development.

11 Prioritizing Women and Social Development: Much progress has been made in helping women attain some basic level of needs. Nonetheless, experience has shown gender inequality is pervasive and might be on the rise. Allocation of economic and social resources such as education, health care, nutrition and political voice is skewed against women, marginalized minorities and the weak. War, violence and famine in the region increased the women's burden tremendously. Four disadvantaged groups are victims of poverty, namely the landless, the pastoralists, women, and children.

12. Prioritizing Women and Social Development: To break the cycle of poverty, hunger and underdevelopment, we must enhance gender equality through empowerment of women. To stimulate sustainable economic development, various important factors such as education, health and employment for women should be achieved. Though government policies bypassed the development of the agricultural sector, it still remains the mainstay and backbone for the nations as a whole and women and the poor in particular.

13. Prioritizing Women and Social development: Institutions that empower women through prioritizing agricultural sector will not only increase women's livelihood, but will also bring about a faster poverty reduction. This in turn would allow women to have control over decisions and resources that affect their lives. Women should be given an opportunity to have political voice so they can influence institutions and policies that promote their well being. Institutions that focus and pay attention to issues of gender issues must be implemented. Explicit emphasis should be put on policies that empower women through education. Public policies that are specific to improving women's employment, access to credit, and improved health will not only advance gender equality and social development, but also serve as a prerequisite for

sustainable economic growth.

14. Prioritizing Women and Social Development: Due to recurring famine, war and instability, high fertility, infant mortality and maternal death are among the highest in the world. The implication for this fact for the women of the Horn is that the best way to combat higher fertility is to afford the women with incentives to learn and consequently opportunity to earn equitable wages. Experience has shown that as women get more education the opportunity cost of having many kids decreases. This empirical fact is confirmed by the experience of both developed and some of the developing countries.

15. Future Prospects for Women and Social development: Lack of education is a handicap and insecurity for many people in the Horn. Women and young girls suffer the most as they are less able to go to school due to the increased pressure to nurse, look after, and nurture their families. Societies where the benefit of having more children outweighs its cost and likelihood of survival for their children is uncertain, parents are unable to forego the opportunity for having many children.

16. Future Prospects for Women and Social Development: Therefore, policy goals that reduce the women's dependence through increased resources devoted to better education and earning, improved health care, better nutrition will lower infant mortality and that would check population explosions that are prevalent in the Horn. Increased saving, financial freedom and improved credit systems for women would reduce their dependence on the number of children for later age. This is particularly true in the Horn where social security systems and social safety net in the older age are absent. Maximizing the number of children one could have or bear seem to be the only way to hedge against increased infant mortality and lack of saving in these countries.

17. Future Prospects for All: After analyzing the cause and consequences of the present situation of the Horn, various self-perpetuating problems are seen. Some of the things that need to be changed are highlighted in the following paragraphs. Giving priority to agriculture, livestock and rural development will be the key factor to poverty reduction and improving women's livelihood. Increased agriculture production and distribution through well organized and watchful planning is required. Proper land distribution must be the first step toward attaining self sufficiency. It is the procedure through which income can be distributed and equalized across groups.

18. Future Prospects for All: Experience has shown that large farms are less productive because they are underutilized. If this land is put into proper use many of the landless will be able to produce food for themselves as well as for surplus. However land distribution by itself contributes little unless it is incorporated with farm policies, with deliberate emphasis on the poor and women, who need to be given equitable shares of both the food land and agriculture inputs. Productivity can be increased by improved traditional methods of farming, constructing irrigation channels and dams and introducing agriculture inputs, which are locally available, easily accessible and equally distributable.

19. Future Prospects for All: If agricultural-led growth and rural development are achieved and emphasized, agriculture will be sufficient for both local and export use as well as provide employment to millions of jobless people in the Horn.

Final Notes: In passing, while the specter of economic and social disaster is looking the people, governments, the concerned intellectuals of the Horn in the face, the opportunity to reverse and learn from the past mistakes is plenty and available.

20. The future could be brighter and hope could be nearer, but the people of the Horn must know that without peace, there is no security and without security there is no development and without development poverty, hunger, internal displacement will continue to characterize the social and economic landscape of the Horn of Africa. The future of the Horn and of all of Africa will be one of their own design and the option for

remedies are possible if the people and governments are willing and able to adopt the institutions and policies necessary for increased well-being and sustainable economic development for all.

21. **How the World Can Help:** For the world community, it would be wise to heed this Chinese proverb: “Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime.” Policy distortions such as food aid and government-to-government aid hurt the economy of the poor if proper policy and accountable government is absent. Opening up international markets and offering these nations a favorable term of trade is in all likelihood a superior development strategy to food aid that has handicapped the production capacity of agriculture and eroded the livelihood of the women and the rural poor.

ETHICAL GLOBALIZATION AND MICRO-CREDIT INITIATIVES: Sustainable Development, Women & Micro credit Empowerment, and Poverty Reduction, *Focus: Horn of Africa (HOA)*

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Ethical Globalization is one of stark contrasts; more connections exist: markets, people and ideas linked as never before. These connections provide great opportunities while at the same time, globalization, can deepen divisions: North and South; rich and poor; the powerful and powerless. What is Ethical Globalization? Ethical globalization requires us to share responsibilities for addressing global challenges, affirm that our common humanity doesn't stop at national borders, *recognize that all individuals are equal in dignity* and have the right to certain entitlements, rather than viewing them as objects of benevolence or charity, *embrace the importance of gender* and the need for attention to the often different impacts of economic and social policies on women and men, *affirm that a world connected by technology* and trade must also be connected by shared values (such as environmentally friendly, sustainable & inclusive development), norms of behavior, and systems of accountability.

Small Businesses: An Engine of Growth

Access to credit is often the primary barrier to business start-ups globally, but especially among the poor, "uncreditworthy" women. The Horn needs to lobby for more microcredit initiatives & programmes.

What is Microcredit? General Features of Grameen credit:

(Is an innovation by Professor Muhammad Yunus, Nobel Peace Prize Laureate, 2006 of Bangladesh. It promotes credit as a human right. Its mission is to help poor families help themselves to overcome poverty. It is targeted to the poor, particularly poor women. It is not based on any collateral or legally enforceable contracts. It is based on "trust" of members and not on legal procedures and systems.

What is Microcredit?

Credit offered for creating self-employment for income-generating activities & housing for the poor, as opposed to *consumption*. Initiated as a challenge to conventional banking, which rejects the poor by classifying them to be "not creditworthy". Micro credit has its own methodology for deciding who receives credit, how loans are delivered (generally through non-profit organizations or through institutions primarily owned by the borrowers) & re-paid.

Micro credit & Building Social Capital: High priority is given to building **social capital** → instrumental to empowerment of poor women. *Why?* Based on the premise that the poor have skills which remain unrecognized & under-utilized. It is not the lack of skills which make poor people poor; poverty is not created by the poor; but rather by institutions and policies that surround them.

Microcredit & the HoA: No *a priori* blue-print can be used; microcredit programmes for the HoA need to be as diverse as the countries & cultures themselves. Cultural customization of the concept is key to its success.

Microcredit & the HoA: The large informal economy Urban/Rural differences integrate & utilize local institutions in design, management & delivery of programmes. Target the wealth producers – women Non-interest loans, consistent with the Bai- Muajjal mode of Islamic Banking, will be most appropriate in many regions.

Microcredit & the HoA: Integrate with NEPAD, lobby ADB, UNDP to offer more microfinance initiatives in the HoA. Microfinance programmes must be part of a holistic framework for poverty reduction in the HoA - link to social development, education, health, nutritional, financial education/awareness.

Case Study: Aisha's Story of Assamo, Djibouti

\$500 loan from the Near East Foundation, granted to Aisha after her husband was killed & her small farm was devastated by a bad storm; she used the loan to buy men's underwear & shirts from Ethiopian traders; she in turn sells them in her village & in Ali Sabieh. The loan also permitted her to hire a farm worker & the storm damage is gradually being repaired & her land is becoming productive again. Aisha now has two sources of income & her children remain in school.

BUILDING PEACE IN THE SPACE OF CIVIL SOCIETY: THE CASE OF SOMALI WOMEN

Shukria Dini, York University, Canada

First, I would like to thank Dr. Jalloh and the Conference Organizers for inviting me to this conference. In this short presentation, I will provide discussion on women's gains in the civil society space, the origins of women's organizations, their activism and their roles in peace building in Somalia. I will also address some of the challenges facing them.

INTRODUCTION:

War affects everyone negatively but also transforms people positively, including women. In Somalia, the heroes have been Somali women who have been saving their war-ravaged nation. I would like to say that: "There are only two things going for Somalia: God and women. Both God and women have not let Somalia down. The war provided Somali women opportunities to re-examine their own identity as women (their status) and recognize their own agency and capacities. Of all the Post-Cold War conflicts to arise in Africa, one of the most disastrous has been the collapse of the Somali state (legally and administratively) following a civil war in which Somalia degenerated into a collection of feudal enclaves, each controlled by a self-appointed 'warlord' and Islamic courts. The current Transitional Federal Government faces enormous challenges to assert its authority beyond Baidoa (a tiny town). Somalia is a nation plagued by hunger, disease and poverty. It is a nation facing a very complex humanitarian crisis.

The people of this nation have been experiencing economic, political and environmental insecurities. Women have been particularly affected as there are no publicly funded social services available (these include: employment, healthcare, education and protection). Even some of the gains which women made in education and politics were rolled back (the lost decade for Somali women).²

In fact, the status of Somali women ranks at the lowest rank in the United Nations Development Report. Such setbacks will be costly for Somali women as well as the nation in the post-recovery stage. The international community has attempted since 1991 to resolve the political fragmentation of Somalia.

The needs of the people within the country have been the focus of sporadic relief efforts by humanitarian and development agencies. In addition, there are local organizations in Somalia that have been responding to the humanitarian crisis which this presentation touches. A question which needs to be asked is what contributions are Somali women making to building peace in their country? The Somali case tells us many stories, a collapsed state in the 21st century, a nation facing complex humanitarian emergency, a peace issue, civil society and women's activism in a stateless nation.

Civil society is the arena in which people, associations voluntarily advance common interests. In this presentation I am using Habermas' concept of civil society which means the nexus of non-governmental or secondary associations ranging from churches, cultural associations, academies, independent media, sports and leisure clubs, debating societies, groups of concerned citizens, occupational associations, political parties, labour unions and alternative institutions. Civil society as a space, a site (for governance and strategic actions) of action and agency (actors). Civil society in Gramsci's conception becomes the site for the construction of a counter-hegemonic narrative.

Can we actually discuss about civil society in conflict zones (where the required resources and infrastructures do not exist)? Is there civil society in Somalia? Yes.

Micheal Edwards argues that the site of civil society is a potential site. It is where progressive politics including human rights, women's rights, good governance, sustainable development, peace and security do take place and emerge (2004). Civil society institutions are crucial agents building new society out of the

ashes. They are the best hope for promoting democracy, peace, women's rights and human rights. When I was in the field, I was really amazed by how the NGOs and civil society have both sensitized and educated their members about human rights, women's rights, sustainable development and environment and governance discourses. Somali women have been using the civil society space to deliver services to vulnerable groups and build peace. Scholars on post-conflict societies point to the ever-growing number of women-led non-governmental organizations in post-conflict societies. Women's activism in various war-torn societies has been visible and continues to be a force which has not only been responding to the needs of their communities but also to the processes of peace building and post-conflict reconstruction (Cockburn, 1998; El-Bushra in Jacobs et al., 2000; Kumar, 2001; Sorensen, 1998 and Tripp, 1998). In Somalia, due to the insecurity, international humanitarian aid agencies had to rely on the partnership of local organizations, and have contributed to the growth of local NGOs in Somalia and Somaliland. One of the positive outcomes of the collapsed state and the civil war is that women gained a space that they never had before. Women have been using it very effectively. It was not an easy experience for women to occupy this space. Harassment and violence was unleashed on them. Most of the leaders of these organizations whom I interviewed stated that the community which they were serving misunderstood their work and their properties were vandalized and looted. They were stoned at and accused of indoctrinating women (it was women, children and youth they target through their programmes). Patriarchal institutions weaken temporarily due to men being involved with the clan-warfare and the power struggle. It is important to understand the ways in which women are using this space as a form of resistance to violence, statelessness, poverty, and underdevelopment.

Factors Which Led to the Formation of these Organizations:

1. The following driving factors led women to organize and establish their own non-governmental organizations and to respond to the needs of the war-affected population. They include: The fall of the Somali state (statelessness, lawlessness and power vacuum). It was violently removed by armed opposition groups; the rupture of gender relations (men being occupied with both clan warfare and power struggle). As a result, patriarchal structures weakened (temporarily). Somali women got the opportunity to reinvent themselves and reassert their agency in a lawless nation.
2. Women-led NGOs are organizations initiated, formed, and sustained by women. Women's leadership is very much pronounced in these organizations. I define peace building as the rebuilding of relationships between groups in conflict. In the Somali context, this requires a re-achievement of the social relations of respect and cooperation between various clans which had existed prior to the civil war.
- 3 Thus, civil society, including women's organizations are products of the civil war (humanitarian crisis). Somali civil society emerged out of crisis – collapsed state, civil war and its humanitarian crisis negatively impacting on the people.

All the leaders of women-led organizations whom I interviewed in Bari, Nugal, Mudug, Sanaag and Hargeisa, had no previous experience of working in the NGO sector. Most of the leaders of women's organizations are educated, urban and middle class. They stated that they were compelled to assist vulnerable groups – women and children. "We had to do something to save the lives of our people. We could not ignore the humanitarian crisis affecting our people and community". These leaders have sold their meager assets (jewelry) to set up feeding programs, schools and so on. As the suffering of the Somali people intensified in the 1990s, Somali women were confronted to respond to the humanitarian crisis. Some of these women's organizations may have lacked the skills, capacity and the required resources to carry out such daunting tasks. Similarly, Somali women living outside of the country were compelled to do something for their families, neighbors, people and communities. Somali female activists who were inside Somalia sought the support of Somali Diaspora, particularly women, to finance some of their relief projects. Somali women abroad have organized various events such as luncheon, dinner to collect funds from every individual who attended such events. There were even times when the clan card was used to encourage people to support their clansmen and women who were

in need of humanitarian assistance. Women's organizations have been delivering much needed services to women, children and other vulnerable groups. They have built schools, clinics, wells, and supported number of micro-credit programmes for children, youth and women. It is their services that reduced the vulnerabilities of people, particularly the youth (who can easily be recruited to militia groups). Many slogans are used by these organizations to promote the education of the youth – pick up the pen and put down your gun” – qalinka qaad qorigana dhig. Somali women's activism and organizations in various communities in Somalia have been visible (even in remote places, you can find community-based organizations operating in one tiny rooms) and continue to be forces which have been responding to the needs of the needy and traumatized groups of the population (mostly women and children). Women in Somalia and Somaliland have developed their own networks. There are three major women's networks (which 90 percent of women's organizations are members): The Coalition of Grassroots Women's Organization (COGWO), NAGAAD in Somaliland and We are Women's Activists (WAWA). They cooperate and do carry out nation-wide campaigns including FGM.

Their contributions to community development and peace-building initiatives are small-scale but yet are having enormous impact on the lives of ordinary people living in fragile situations. Their programmes are building new communities. In spite of the absence of state, war, lawlessness, chaos, poverty and under-development, Somali women have been participating in a new and vital civil society development in war-torn Somalia. The activities of such organizations are crucial and highly needed in post-conflict situations such as Somalia. According to Edwards, these organizations are strategically located at what he calls the space of “microclimates in which skills are learned, values and loyalties are developed, and caring and cooperation – instead of competition and violence – become the rational ways to behave” (2004:41). Trust has been one of the casualties of the civil war. Women's organizations' programmes are formulated and implemented in a way to foster unity, cooperation and trust among their beneficiaries. Various groups belonging to different clans residing in one locale are encouraged to work together in all stages of these projects. It is through these projects that people from various ethnic groups have been brought together to interact thus contributing to social peace. At the beginning each clan refused to work with each other due to mistrust and fear of the other. However, women's NGOs have assisted these groups to overcome such fears. There were clan leaders in certain villages that were adamant about not cooperating with other clans. Women's NGOs pulled their operations in these places and rewarded (with more projects and assistance) to other villages and towns where their inhabitants were willing to cooperate and manage their projects. Both their humanitarian / community development activities and the space of civil society which women have been occupying is and can be political – where women are /can pursue (ing) their political struggle in a war-torn country. It is their work and this space where women's organization can advocate for gender equality and resist new oppressive forces.

Somali Women's Roles in Peace building:

Somali women's activism in peace building is linked to their activism in war. Some of their contributions to the war included songs, poems, encouraging men to fight, collecting funds and resources to finance the war, providing food, medicine and water to fighters. Women have been resourceful peacemakers/peace builders and have been building peace from the bottom up. Somali women and their organizations have been making their share to the peace-building and conflict resolution efforts in their communities. There have been numerous peace making and building initiatives carried out by women in every corner of this troubled nation. During periods of tensions, women established their own peace envoys and delegates (known as Ergo Nabadeed) who have certain skills (good nature, personality, charisma, well versed with the traditional and customary laws). Whenever violence erupts between two groups, women study the conflict, assess the impacts of the conflict on women and also study the prospects for peace. For example, the war between Ali Mahdi and the late Aideed – two powerful warlords who controlled Mogadishu and led to the division of the city of Mogadishu into two parts – North and South. A green line was set up to divide the people. Women who belonged to both of their clans (the Abgaals and Habar Gidir) crossed the check-up points as well as the green line to check upon other women (from the other side), and provided assistance to women and children affected by the violence. Often, women used various excuses to cross checkpoints and used excuses that they

are simply crossing these checkpoints to borrow salt and sugar from a friend who resides on the other side of the city. In addition, they have mobilized resources and facilitated contacts and communication between the warring groups. In many communities in Somalia and Somaliland, women have traveled many miles to carry peace and reconciliation messages between warring factions. Women have also pressured local authorities to keep the peace in their cities. There is an initiative called Hufan – Hufan is the name of the leader who organized an all-female boycott. Hufan and thousands of women in Bosaso sat in the Bosasso port aimed to disrupt economic activities for the local authorities/militia groups. Women did this sit in to pressure local authorities to establish law and order in Bosasso town. It led to results. Even women have promoted peace and averted conflicts by pressuring their spouses in the bedrooms. Thus, women's organizations have been pushing for an alternative – a bottom-up approach to community development, gender justice and peace building and rebuilding in war-torn Somalia. There are many challenges facing women's organizations in Somalia. They include: 1. Lack of sufficient resources for them to meet the needs of the population. This is where the Somali Diaspora can help 2. Insecurity can hamper their activities. 3 The lack of infrastructure, investment, high unemployment, and environmental degradation (charcoal burning) are barriers to both social and economic recovery – thus, making difficult for women's organization to do their work.

Conclusion:

It is the space of civil society where Somali women are not only building social peace but also transforming war-torn Somalia. I argue that it is the civil society space where women are clearly expressing that they are not accepting the tragic situation that engulfed their country. Women have been using their own experiences as victims, perpetrators and active agents to create a sustainable peace in a nation ravaged by unending civil war. The future of women's organizations and their activism in the space of civil society will depend upon a number of things: the new government, the Islamist group, their policies and actions towards civil society as well as their commitment to democracy, social justice, and gender equality in a war-torn country.

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