EASTWEST INSTITUTE
Forging Collective Action for a Safer and Better World

RESILIENCE IN THE HORN OF AFRICA AND THE ARABIAN PENINSULA: WATER, FOOD AND CLIMATE

Executive Summary

The Horn of Africa and the Arabian Peninsula need new policies to ensure sufficient supplies of food and water in the future, according to consultations led by the EastWest Institute (EWI). Without new approaches, water and food scarcity in the region could increase the potential for political conflicts that could in turn lead to violence. Two years of EWI consultations among regional and international experts and leaders found that three major groups can address these critical challenges: national governments in the region, G20 governments, and investors from near and far. Moreover, geopolitical and business ties among the wealthy countries of the Arabian Peninsula and their poorer neighbors in the Horn of Africa will be increasingly important in the search for solutions to challenges posed by climate change and resource scarcity.

The EWI consultations sought to combine approaches from various streams of policy and from diverse international organizations and national actors. For example, we examined the policy differences and commonalities between those focused on: humanitarian relief for drought-stricken communities; response to other natural disasters (such as floods); traditional development assistance for eligible countries; new funding programs for climate change adaptation in developing countries; biodiversity issues; the emergence of new forms of fast-track finance for adaptation; weak rule of law and land ownership; and the long term food security policies of wealthier countries in the region. The EWI consultations were premised on the view that the G20 must take a leadership role on these issues, because other international institutions are failing to make the necessary connections between these diverse policy areas with sufficient urgency.

Taking a lead from the Rockefeller Foundation's commitment to building resilience in Asian cities, the EWI consultations confirmed that the concept of resilience was a powerful tool for connecting diverse policy needs in a way that would benefit countries with small or weak national planning capacities. In particular, a focus on resilience has great potential to move traditional aid recipients away from dependence and toward greater self-reliance in the face of diverse challenges. The concept of resilience is equally applicable for wealthy countries in the region, such as Saudi Arabia, that are also facing water and food security threats.

As the high point in this series of consultations, EWI, in partnership with the Rockefeller Foundation, convened a five-day retreat on "Resilience in the Horn of Africa and the Arabian Peninsula" at the Bellagio Study and Conference Center on the shores of Lake Como, Italy, from October 17–21, 2011. The retreat brought together some twenty specialists and officials from the

region. Other consultations in group formats or private meetings in Brussels and Washington, D.C., over the previous two years involved some forty recognized global and regional policy leaders, high-level private sector actors, and world-renowned research specialists.

The main goal of the consultations and the Bellagio retreat was to shape a set of recommendations for G20 governments. The following recommendations emerged.

> The G20 members should agree on an action plan to strengthen resilience of developing countries that face the greatest challenges in security of water, food, and energy where these are creating socio-economic stresses that threaten political stability. This action plan should be premised on the goal of achieving sustainable responses to resource scarcity, climate threats, and natural hazards, through short-, medium-, and long-term measures such as:
>
> 1. Strengthening relevant scientific research and linking it more effectively and consistently to policy development (through more intense sharing of information), possibly through a standing G20 Track 2 mechanism
> 2. Empowering national and local actors, with special emphasis on women, youth, and institutions, for greater leadership in climate adaptation (forging partnerships)
> 3. Creating a foundation for new G20 action by large-scale support for policy development think tanks in countries in the Horn of Africa and the Arabian Peninsula, possibly focused on a regional policy research center for resilience
> 4. Implementing innovative development finance based on each country's unique needs
> 5. Promoting linkages between national and international private sector actors, especially through renewed efforts to integrate the private sector more closely into existing international organizations with roles in water and food security
> 6. Mobilizing the private sector, community leaders, and civil society organizations for education about resilience needs
> 7. Strengthening innovation and technology transfer, especially at local levels
> 8. Undertaking specific new initiatives to address the link between declining livelihoods and conflict, not least through a renewed commitment to ending the civil war in Somalia.

Report prepared by Greg Austin, Nathan Wendt, and Irini Tseminidou
Completed January 5, 2012

BELLAGIO RETREAT ON NATIONAL RESILIENCE AND RELATED CONSULTATIONS

In partnership with the Rockefeller Foundation at the Bellagio Study and Conference Center on the shores of Lake Como, Italy, from October 17–21, 2011, the EastWest Institute convened a retreat on "National Resilience in the Horn of Africa and the Arabian Peninsula." The retreat was organized as an informal roundtable facilitating a free exchange of opinions by some twenty participants including representatives of the African and Arab civil society organizations, academics, private sector leaders, local and regional policy-makers, and representatives of intergovernmental organizations. See Attachment A for a list of participants in the Bellagio retreat and Attachment B for a list of the presentations that served as the basis of discussion.

This retreat was supported by a series of other consultations on the same subject which ran from mid-September until the end of October. These discussions engaged some forty additional recognized leaders in global and regional policy, high-level private sector actors, and world-renowned research specialists in Brussels and Washington, D.C. Attachment C provides a list of participants in seminars, round-tables, and one-on-one discussions undertaken by EWI in late 2011.

EWI's partnership with the Rockefeller Foundation aimed to help strengthen the position of developing countries in the highly polarized and confusing debates around national resilience in the face of demands for adaptation to climate change. The Bellagio retreat addressed key issues related to fundamental economic security with an emphasis on the water-food-energy nexus, including the links between these components and debates around climate security.

Using as a case study the Horn of Africa and the Arabian Peninsula, the retreat aimed to identify proposals for two innovative action plans:

1. **An International Action Plan for the G20** for improving the resilience of developing countries facing economic security threats from water or food scarcity, other resource pressures or extreme environmental conditions, including those induced by climate change; and

2. **A Regional Action Plan for New Capital Investment in Resilience** oriented to private and public lenders and donors which will catalyze an immediate shift in the practices of lending institutions to more effectively address current and future resilience needs in recipient countries in the region (EWI will seek and promote the scaling up of "game-changing" ventures in the water-food-energy nexus in *selected critical localities*).

The EWI consultations were premised on the view that the G20 must take a leadership role on these issues because other international institutions are failing to make the necessary connections between these diverse areas of policy with the needed urgency.

Beginning in late 2009, EWI had undertaken a number of related consultations and activities to understand how leadership groups and specialists in critical localities understood and responded to climate threats—both those that exist now and those that may emerge as global warming intensifies. Attachment D includes a list of participants in EWI sessions or people consulted individually.

RESILIENCE: WHAT IS IT, AND WHY IS IT IMPORTANT?

Resilience, as outlined by the Climate Change Resilience Initiative of the Rockefeller Foundation, is the capacity to deal with imminent environmental change.

Many countries and distinct communities struggle with responses to current climate threats, regardless of the prospective climate change threats of the future. Certain developing countries or poor communities faced with recurring large-scale disasters (heavy flooding, persistent drought, typhoons/hurricanes, massive earthquakes, wide-spread disease, etc.) find it almost impossible to rebuild before facing new disasters or their consequences. These communities have little interest in complex and obscure arguments about the uncertainty of future climate change or elaborate plans for future climate change adaptation that will be handled through notoriously slow and inefficient mechanisms for delivering international economic assistance. For these communities, and for many others, reliance on building national resilience can provide a more compelling line of policy engagement even as it prepares them for the consequences of climate change. The attention to resilience has great potential to move traditional aid recipients away from a relationship of dependence in narrow sectors of aid to one of self-reliance in the face of diverse challenges.

The EWI consultations sought to bridge existing approaches in various streams of policy and in diverse international organizations and national actors. For example, we assessed the policy gaps and policy commonalities between humanitarian relief for drought-stricken communities, traditional development assistance for eligible countries, new funding programs for climate change adaptation in developing countries, the emergence of new forms of fast-track finance for adaptation, and the long-term food security policies of wealthier countries in the region. Taking a lead from the Rockefeller Foundation's commitment to building resilience in developing countries, the EWI consultations confirmed that building for resilience is a powerful tool for bridging the diverse policy needs in a way that would benefit countries with small or weak national planning capacities. In particular, the focus on resilience has great potential to move traditional aid recipients away from a relationship of dependence in narrow sectors of aid to one

of self-reliance in the face of diverse challenges. Resilience is equally applicable for wealthy countries in the region, such as Saudi Arabia, that are also facing water and food security threats.

There is an urgent and unmet need to develop new directions for policy consensus to overcome gridlock in international climate negotiations. Resilience has a greater potential for immediate and visible political outcomes. At the same time, the resilience argument should not be regarded as a substitute for successful mitigation process. These political outcomes can be achieved without focusing on emission targets. A valuable example of a more indirect approach to create positive momentum to tackle climate change is the REDD+ Partnership, which was founded in the aftermath of COP 15 as an evolution of the U.N. program of reducing emissions from deforestation and forest degradation (REDD).

Building national resilience does not concern only *developing* and *less developed* countries. The absence of a universally binding treaty does not prevent individual nations and governments from acting on resilience at the local level.

The frequently observed divergence between *social* and *institutional resilience* measures could be overcome through building an international framework where social dynamics are given due normative consideration. It is highly unlikely that internationally devised adaptation (resilience) will be absorbed by all societies similarly, and that is why it is imperative to find a common ground for mutually beneficial forms of cooperation. In this process, enhanced roles for several elements will be vital:

- Education and knowledge transfer
- Private sector involvement
- Civil society engagement.

THE GLOBAL POLICY SETTING FOR MANAGING SCARCITY

The international community is increasingly integrating threats from non-traditional sources (like scarcity of water and food) into broader strategic security concerns. However, up to this point, the G20 nations have not conferred extensively on non-traditional security threats, for example water security and national security linkages. Food security was addressed in the first ever meeting of G20 Agriculture Ministers in June 2011. France, in its capacity as chair of the G20 for 2011, convened the meeting, which adopted an “Action Plan on Food Price Volatility and Agriculture.” The plan called for greater international attention to increasing agricultural productivity, improving international coordination (including reforming the Food and Agriculture Organization), and the role of increased liberalization of agricultural trade in addressing food security. The meeting did not seriously address linkages between agriculture and water scarcity. More systematic institutional responses in managing resource scarcity that recognize such linkages are needed from the G20 countries.

The prospect of global resource scarcity is now much greater than it has been in the past, and there may already have been a permanent paradigm shift in the economics of scarcity. On October 31, Earth passed the 7 billion global population mark. As populations grow and global economies develop, there is also an increase in per capita resource consumption toward more resource-intensive goods. Global international security will become more complicated with new pressures on resource security—and resource geopolitics will become a reality for the global community to manage.

The pressures within the resource nexus are mounting quickly, and there is an urgent need for greater G20 joint planning and assigning new values to resources before we get too involved in scarcity control. Private industry must partner more aggressively with governments to uncover new approaches, new technologies, and new concepts which can begin now to mitigate and adapt to the coming impact of increased global resource scarcity.

At the global policy level, there are still fundamental disagreements over global resources and how to manage them. For example, is water a human right or an economic commodity? Within the global resource and security community, consensus does not exist. Moreover, there is a void in global leadership, inhibiting concerted action towards common goals. The United States, a large emitter of carbon and consumer of resources, has difficulty in attaining credibility on resource scarcity issues due to political infighting, and as a non-signatory of the Kyoto Protocol, effectively created a global leadership gap.

Further, the global community needs more information on resources. More data is needed on water to study the food-water-energy nexus. Current resources are out of date (e.g. the 2006 Joint Monitoring Program), only focus on individual countries, or simply do not exist. This is an asymmetry unique to water; in energy the EIA/IEA exists, for food the FAO and other resources. The time may be right to create an International Water Agency for the global community which would be a guaranteed repository for data and produce research for the community.

GLOBAL POLICY SETTINGS FOR PROMOTING RESILIENCE

In spite of a high degree of mobilization of political will for funding adaptation programs in poorer or most threatened countries that would support their resilience, it appears to be the case that efforts to date are barely scratching the surface of needs. According to a 2011 academic study of the adaptation plans of the United States, the United Kingdom, and Australia:

> These results suggest adaptation plans are largely under-developed. Critical weaknesses in adaptation planning are related to limited consideration for non-climatic factors as well as neglect for issues of adaptive capacity including entitlements to various forms of capital needed for effective adaptation. Such gaps in planning suggest there are opportunities for institutions to

> make better use of existing guidance for adaptation planning and the need to consider the broader governance context in which adaptation will occur. In addition, the adaptation options prescribed by adaptation plans reflect a preferential bias toward low-risk capacity-building (72 per cent of identified options) over the delivery of specific actions to reduce vulnerability. To the extent these findings are representative of the state of developed nation adaptation planning, there appear to be significant deficiencies in climate change preparedness, even among those nations often assumed to have the greatest adaptive capacity.[1]

This conclusion has been borne out by EWI consultations so far with developing country representatives, donor agencies, and development banks. Highlights of results or views expressed so far in those consultations:

- When asked, few people who should know could name the "most successful adaptation project" or the biggest success in adaptation funding. The international community needs compelling evidence base, both of the problem and the response.
- The EU in its foreign aid policies does not pay much attention to projects specifically designed for adaptation, but rather scores the adaptation "friendliness" of projects devised through other methods.
- Official development assistance (ODA), what we know as foreign aid, is a very poor instrument of adaptation funding for a number of structural reasons.
- Development bank lending does not usually take a multi-sector adaptation approach in analyzing new projects.
- We need something that can escape "national prerogatives" of current aid and lending approaches and get to the community and regional basis.
- Agriculture and water, the most sensitive aspects of environment which need most attention in adaption, receive too little attention.
- The first set of evaluations of spending initiatives under the U.N. FCCC Adaptation Fund was due for completion in late 2011.
- Initiatives funded by the adaptation fund are likely to be only "demonstration projects" that cannot offer comprehensive long term adaptation itself.
- Not all forms of adaptation are going to be cheap and comfortable. There will be more crises not fewer, greater stress, greater deprivation, and greater political conflict,
- We need new approaches that can unleash the profit motive and get the private sector more deeply engaged.
- There are too many differing government perspectives, and consensus is not attainable in current debates. Adaptation solutions have to be cast in a new light where governments work with what works in any given particular country through the private sector, civil

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[1] See Climate adaptation planning in practice: an evaluation of adaptation plans from three developed nations, Benjamin L. Preston, Richard M. Westaway and Emma J. Yuen, Mitigation and Adaptation Strategies for Global Change, Volume 16, Number 4, 407-438.

society, and social norms, and the approaches should be customized based on local norms and accustomed incentives.

A BROAD OVERVIEW OF THE BELLAGIO CONSULTATION

Participants from the Horn of Africa and Arabian Peninsula regions and associated international organizations provided a rich overview of local initiatives, both governmental and private sector, to address the challenges of maintaining resilience for water and food security in the region. For example:

- The OIC has an active and effective water management program that includes trans-border stakeholders and local communities, and relies on a wide variety of policy instruments.
- In 2008, the African Union adopted the Sharm El Sheikh Declaration on water security and sanitation.
- There is wide acceptance that water and food security issues cannot be addressed only at the national level.
- Saudi Arabia is revising its national water management and food security strategies after concluding that heavily irrigated farming in the desert was threatening the long term viability of its aquifers.
- Ethiopia has one the most comprehensive water development plans in the region, while all governments have highly creditable ones or are developing them. Ethiopia is one of the few countries where the ministries of water and energy have a common plan. Saudi Arabia has a Ministry of Water and Electricity.
- Somalia has an elaborate and effective early warning system for drought and food shortages (but not the capacity to respond)
- Food security is the highest policy priority for the Nile River secretariat.
- "Living with Water Scarcity" was to be a key theme of the 2nd Arab Water Forum in Cairo in November 2011.
- CISCO and the United States Centers for Disease Control have delivered advanced technologies and scientific support for managing the already visible disease impacts of rising temperatures in the Horn of Africa.

Having examined current resource scarcity situation in the Horn of Africa and the Arabian Peninsula through the prism of the water-food-energy nexus, participants identified the following major challenges:

- Climate change impacts in the Horn of Africa have already been severe and have fuelled conflicts that are now so intense that they will be difficult to reverse.
- National programs for adaptation to climate threats will be useless if they do not provide adequate resilience at the community level.

- In the global community, only seventeen countries ratified the U.N. Convention on Water Sharing.
- There is very little research even in the wealthiest countries in the region on when environmental degradation (such as desertification or drying up of aquifers) can no longer be reversed.
- For most of sub-Saharan Africa, responding to climate change is yet another onerous burden on communities and national governments already struggling to meet other challenges. Only a broad unleashing of entrepreneurship can provide the underpinning for the necessary responses.
- All governments in the region have weak enforcement mechanisms for water and food security or related environmental policy.
- Food security is not well understood or managed at global level. The complexity of the issue needs to be brought into immediate short-term focus for political leaders. On the one hand, agriculture and fuel subsidies in the EU and the United States, along with trade policies for agriculture in other large importers have a negative impact on food security elsewhere. On the other hand, there is no credible planning at a global level for response to sustained drought across a number of regions simultaneously. In one view, there needs to be a focus on sustainable desert development. An opposing view is that sustaining communities in desert environments will become untenable or simply too costly, and these communities and their governments will need to consider developing alternative ecological zones.
- Despite the existing investment opportunities and the interest of the private sector to work together with local communities in transition to a sustainable economy, there is still distrust governing the relationship between national and local governments, and any cooperation attempts between the two appear uncoordinated.
- The intervention approach is unbalanced: instead of basing intervention on the needs and requirements of the local communities, stakeholders attempt to introduce measures according to the perspective of the western states. The leadership mentality is biased and outdated, prioritization of climate change is low, approval and implementation of measures are slow, and it is difficult to convince decision makers to change political attitudes.
- There is a misconception that developing countries should be allowed to address the issue of climate change themselves without any external intervention. In reality, while these countries should be allowed to lead the political process and formulate their own policies, they are too economically weak to support it. There should be a right balance of regional economic cooperation in natural resources management and local policy implementation and enforcement.
- Policy for transfer of land ownership has become a particular concern, with traditional owners often being forced out in favor of wealthy foreign purchasers and being left with

little or no access even to traditional water sources. There may be insufficient recognition of customary rights in the legal practice of key states.

- Institutions lack the basis and policy implementation mechanisms, limiting political momentum and potential impact. Instead of relying on development agencies, local think tanks and research centers must be established to navigate policies and implement national programs while simultaneously acting as intermediaries between the national and local levels. There has to be more focus on managing vulnerabilities, and less on broad-based development.
- In the Horn of Africa and the Arabian Peninsula, water and food scarcity is extremely dire. Furthermore, action is inhibited by lack of political security in some places such as Yemen and Somalia. That absence will keep outside investors away. Dealing with resources becomes extremely localized down to clan levels.
- Somalia is resource rich, but the distribution systems are very weak. Control of water points is highly politicized. Somalia, like other countries, needs water for energy production, but there are very few water catchments. Gas imported into Somalia is very expensive for local communities. The export of charcoal to Saudi Arabia has had a detrimental impact on the environment in Somalia.
- The coast of Somalia could support a vibrant fishing industry for export, but this would require international protection and supervision.
- Large refugee communities in several locations in the Horn of Africa put a severe strain on already limited water resources.
- For wealthy countries such as Saudi Arabia, investment in advanced technologies for water production, such as desalination or import, may be the most feasible route. For less affluent nations such as Somalia or Yemen, solutions are likely to be more localized in application and closer partner with micro-entrepreneurs and distribution networks.
- The G20 nations should look to impose comprehensive water pricing systems and offer incentives for responsible use.
- If the G20 does not start acting more quickly to address these issues, global movements such as the Arab Spring will become common and will prove, in retrospect, to have been a “dress rehearsal” for convulsive political change in a number of critical locations.
- According to one source, 46 per cent of all unexploited arable land is in Africa. The continent uses 9 per cent of its rainfall and 12 per cent of its irrigation potential.
- On the other hand, the nightmare for countries of the Horn of Africa is feeding their people not normally affected by drought if international trade suffers a serious shock.

ELEMENTS OF A G20 ACTION PLAN

The main outcome of the retreat was shaping of a recommendation for the G20 governments:

The G20 members should agree on an action plan to strengthen resilience of developing countries that face the greatest challenges in security of water, food, and energy where these are creating socio-economic stresses that threaten political stability. This action plan should be premised on the goal of achieving sustainable responses to resource scarcity, climate threats, and natural hazards, through short-, medium-, and long-term measures such as:

1. Strengthening relevant scientific research and linking it more effectively and consistently to policy development (through more intense sharing of information), possibly through a standing G20 Track 2 mechanism

2. Empowering national and local actors, with special emphasis on women, youth, and institutions, for greater leadership in climate adaptation (forging partnerships)

3. Creating a foundation for new G20 action by large-scale support for policy development think tanks in countries in the Horn of Africa and the Arabian Peninsula, possibly focused on a regional policy research center for resilience

4. Implementing innovative development finance based on each country's unique needs

5. Promoting linkages between national and international private sector actors, especially through renewed efforts to integrate the private sector more closely into existing international organizations with roles in water and food security

6. Mobilizing the private sector, community leaders, and civil society organizations for education about resilience needs

7. Strengthening innovation and technology transfer, especially at local levels

8. Undertaking specific new initiatives to address the link between declining livelihoods and conflict, not least through a renewed commitment to ending the civil war in Somalia.

ELEMENTS OF A PRIVATE SECTOR INVESTMENT ACTION PLAN

The consultation produced several very strong ideas and possible new approaches for promoting private sector investment in enhancing resilience in critical localities. They were:

- The old model of development assistance has not worked. Countries in the Horn of Africa need a new balance between private sector investment, governments, and communities.
- Innovative financing mechanisms are needed, especially ones that link grassroots entrepreneurs to capital and ones that leverage advanced but simple technologies.
- The pricing of water needs a radical rethink, possibly including introduction of a futures market.

- The local private sector has to be a primary driver and has to be stimulated both by international donors and lenders and by international investors.
- Political risk for foreign investments in some countries can only be managed by partnering with business people in the host country.
- There will probably have to be a re-pricing of risk. Views outside the region that business is impossible because of famine or conflict in some parts of a country are weak stereotypes that need to be tested.
- International lending agencies and aid donors have to find new ways of letting the private sector re-enter assistance programs that might test well developed principles of probity and conflict of interest. There may simply have to be some loosening of overly bureaucratic controls to create new and effective forms of private-public partnerships.
- Leading investors from outside the Horn of Africa need to make first-hand visits to the region to learn about the actual and quite high investment return potential. According to one source, returns on new investment in agriculture in Africa have been consistently higher than in other continents in recent years. For example, investment in livestock in the Horn of Africa has huge potential. Somaliland, the secessionist province of Somalia, has been successfully exporting cattle to Saudi Arabia.
- New high-tech approaches to farming are not reaching end-users in Africa, with only 30 percent of farmers adapting new technologies to local use. Vocational training and advanced research need to be scaled up dramatically. More emphasis on improving efficiencies across the whole of the value chain will produce big dividends. Egypt is a leader in the region, with ten companies manufacturing solar water heaters.
- Government donors often lack the capacity to scale up worthwhile pilot schemes. Private investors alone can do this.

These ideas were not discussed in much detail. In fact, the qualifications and experience of most of the participants who finally were able to make it to Bellagio did not lend themselves to much deeper analysis of this private sector investment aspect. It is clear however from EWI consultations outside Bellagio, that there are significant private sector investors willing to partner with international lenders and donors in innovative ways on a scale that has not yet been taken up by the latter group.

ATTACHMENT A: BELLAGIO RETREAT PARTICIPANT LIST

1. Sidow I. Addow, Somalia Representative, Famine Early Warning System (FEWS), Somalia
2. Eng. Shihab Najib Al-Beiruti, Head of Services and Programs Section, Inter-Islamic Network on Water Resources, Development and Management (INWRDAM), Jordan
3. Omar Al-Saghier, National Coordinator, GEF-Small Grants Programme, UNDP, Yemen
4. Professor Khodran Alzahrani, Professor of Agricultural Extension, Department of Agricultural Extension and Rural Sociology, King Saud University, Saudi Arabia
5. Eng. Nabeya Ahmed Ibrahim Arafa, Manager, Research and Technology Department, Climate Change Central Department, Egypt Environmental Affairs Agency
6. Tewodros Ashenafi, Chairman and Chief Executive Officer, SouthWest Energy, Ethiopia
7. Professor Abdulaziz M. Assaeed, PhD, Professor of Range Ecology, Department of Plant Production, College of Food & Agricultural Sciences, King Saud University, Saudi Arabia
8. Dr. Aicha Bammoun, Expert, Science Directorate, Islamic Educational, Scientific and Cultural Organization (ISESCO), Morocco
9. Dr. Adli Bishay, Emeritus Professor, American University in Cairo; Chairman, Friends of Environment and Development Association (FEDA), Egypt
10. Dr. Jeanette Clover, Senior Programme Officer, Regional Office for Africa, Division of Regional Cooperation, UNEP, Kenya
11. Dr. Hisham El Agamawy, Energy Advisor for the Minister of Environment, Egypt
12. Medhin Fissha, Climate Change Team Leader, Ethiopian Civil Society Network on Climate Change (ECSNCC) hosted by Forum for Environment (FfE), Ethiopia
13. Eng. Rafik Youssef Georgy, Technical and Environmental Consultant, New and Renewable Energy Authority (NREA), Egypt
14. Governor Celestin Kabahizi, Governor of the Western Province, Rwanda
15. Dr. Fawzi Karajeh, Regional Director, Nile Valley and Sub-Saharan Africa Regional Program, International Center for Agricultural Research in the Dry Areas (ICARDA), Egypt
16. Tom J. Oguta, Senior Nutrition Analyst, Food Security and Nutrition Analysis Unit, Somalia
17. Simon Thuo, Regional Coordinator, GWP Eastern Africa, c/o Nile Basin Initiative Secretariat, Uganda
18. Dimitri Zenghelis, Senior Visiting Fellow, Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science; Senior Economic Adviser, Cisco; Associate Fellow, Royal Institute of International Affairs (Chatham House), United Kingdom

EWI Staff

1. Dr. Greg Austin, Vice President, Program Development and Rapid Response
2. Ms. Liza Kurukulasuriya, Associate, Worldwide Security Initiative
3. Mr. Andrew Nagorski, Vice President and Director of Public Policy
4. Ms. Irini Tseminidou, Economic Security Initiative
5. Mr. Nathan Wendt, Associate & D.C. Representative

ATTACHMENT B: LIST OF BELLAGIO PRESENTATIONS AND HOME ORGANIZATION OF PRESENTERS

NB: All presentations were informal (unofficial) discussion briefs. They were not represented or understood to be the views of any organization or individual.

- "Egypt Addressing Climate Change", Climate Change Central Department, Egyptian Environmental Affairs Agency
- "Building Resilience in the Horn of Africa: Environmental Considerations", Regional Office for Africa, Division of Regional Cooperation, UNEP
- "Strategic Alliances for Increasing Climate Resilience in Critical Localities", Western Province, Rwanda
- "Energy Situation in Egypt", Ministry of Environment, Egypt
- "Dust Storms in Saudi Arabia: Facts & a Strategy to Cope with", King Saud University
- "New Science and Technologies to the Rescue of the Horn of Africa", Nile Valley and Sub-Saharan Africa Regional Program, International Center for Agricultural Research in the Dry Areas (ICARDA)
- "Country-Level Governance of Climate Adaptation Finance for Building Resilience in the Developing World", Ethiopian Civil Society Network on Climate Change (ECSNCC) hosted by Forum for Environment (FfE)
- "Assessment of Selected Development Policies and Strategies of Ethiopia from a Climate Change Perspective and Cross Border Cooperation", Ethiopian Civil Society Network on Climate Change (ECSNCC) hosted by Forum for Environment (FfE)
- "Sustainable Development of Agriculture and Water Resources in the Kingdom of Saudi Arabia", King Saud University
- "Cross-Border Cooperation versus Local Initiatives – Assessment of Existing Policy Approaches to Natural Resources Management", Inter-Islamic Network on Water Resources, Development and Management (INWRDAM)
- "Promoting Sustainable Desert Development as a Means for Reducing Effects of Global Warming in Regions Suffering from Scarcity in Water & Food Production", Friends of Environment and Development Association (FEDA)

ATTACHMENT C: LIST OF PARTICIPANTS IN RELATED EWI DISCUSSIONS LATE 2011

Washington, D.C.

Vincent Caprio, Chief Operations Officer, Water Innovations Alliance
Erik Peterson, Director, A.T. Kearney, Global Business Policy Council
Mohan Seneviratne, Principal Industry Specialist - Water Efficiency, Climate Business Group, IFC
Jon Freedman, Global Leader, Government Relations, GE Water & Process Technologies
Adel Ghazzawi, Founder, CONEKTAS
Kevin McGovern, Chairman, The Water Initiative
Shamma Al Hosani, Diplomatic Attache, Embassy of the United Emirates
Talal Al Kaissi, Chief of Staff – Trade and Commercial Office, Embassy of the United Emirates
Adel Al Mubark, Commercial Attache, Royal Embassy of Saudi Arabia
Saud Al Nowais, Commercial Counselor, Embassy of the United Arab Emirates
Gregory Altman, BlackCreek Group
Mona Avalos, Natural Resources Defense Council
Romani Curtis, International Finance Corporate
Colin Enssle, GE Power & Water
Charles Iceland, World Resources Institute
Herman Jacobs, Counselor for Social Economic and Development, Embassy of South Africa
Stephanie Patrick, Bunge Limited
Ambassador David Shinn, George Washington University
Ashley Webster, Columbia University
Eun Joo Allison Yi, Independent Expert
Tewodros Ashenafi, Chairman and CEO, Southwest Energy (HK) Ltd.
Jerald Baldridge, Founder and Chairman, Republic Energy
David Cohen, Chairman, F&C REIT Property Management
Joel Cowan, Georgia Tech University
Christine Loh, Co-Founder Civic Exchange
General (ret.) Buzz Moseley, Distinguished Fellow, EastWest Institute
Andrew Nagorski, Vice President, the EastWest Institute
Francis Najafi, Founder and Chief Executive Officer, Pivotal Group
Ross Perot, Jr., Co-Chairman, EastWest Institute
Mr. John Porter, Executive Vice President, CB Richard Ellis
Karl Rauscher, Chief Technology Officer, EastWest Institute
John A. Roberts, Jr., President, Chillmark Enterprises

Leland Russell, President, GEO Group Strategic Services Inc.

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Chris Baruti, Senior Research Fellow and Board Member in charge of public relations, Recherches et Documentation Juridiques Africaines a.s.b.l.
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Fernanda Faria, Consultant, EU-Africa / Security and Development / Fragile States
Francis Finlay, Co-Chairman, Board of Directors, EastWest Institute
Graham Hutchings, Director of Analysis and Editor, Oxford Analytic
Ayesha Kabir, Editor, Probe News Magazine
Nthabeleng Maphike, Counselor, Embassy of Lesotho
H.E. Dr. Inonge Mbikusita-Lewanika, Ambassador Extraordinary and Plenipotentiary, Head of Mission of Zambia to the Kingdom of Belgium, the Kingdom of the Netherlands, the Grand Duchy of Luxembourg and the European Union
Sascha Müller-Kraenner, European Representative and Executive Director, The Nature Conservancy in Europe
Dr. Christophe Nuttall, Director, Hub for Innovative Partnerships, UNDP Office in Geneva
Dr. Jaroslaw Pietras, Director-General, Directorate-General I – Climate change, environment, health, consumers, education, youth, culture, audiovisual, Council of the European Union
Sofie Rafrafi, Senior Training Programme Manager, Egmont Institute (Royal Institute for International Relations)
Paul Renier, Official, Directorate General for Development and Cooperation, European Commission
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