

Transcript: A Climate for Conflict- Stories from Somalia

31st May 2017

On May 30, 2017 New America, The GroundTruth Project and the Stanley Foundation co-hosted a screening of “A Climate for Conflict” and discussion with the creators followed by a panel discussion on Climate Security and Societal Resilience.

Struggling with famine, drought, and violence, Somalia today is at a crossroads between a deepening crisis and a path to stability. Photographer and filmmaker Nichole Sobecki and writer Laura Heaton spent 18 months documenting personal stories of Somalia, creating a film, photography, and reporting that vividly illustrate the human consequences and security risks of a changing climate.

How can leaders and civil society—from global to local—coordinate action to mitigate the impacts of climate change and prevent violent conflict? What strategies should be advanced to strengthen societal resilience to such impacts? How can media coverage and public engagement support these efforts?

Moderator: Sharon Burke, Senior Advisor, International Security Program, New America

Panelists:

- Laura Heaton, Writer and Journalist, GroundTruth Fellow
- Nichole Solbecki, Photojournalist and Filmmaker, GroundTruth Fellow
- Jon Kurtz, Director of Research and Learning, Mercy Corps
- Vice Admiral Lee Gunn, Chairman of The Gunn Group and Vice Chairman of CNA's Military Advisory Board
- Dr. Cheikh Mbow, the Executive Director of START International

Organizers:

- Devon Terrill, Program Officer for Media, The Stanley Foundation
- Jai-Ayla Sutherland, Program Officer for Human Protection, The Stanley Foundation
- Beth Murphy, Director, GroundTruth Films, The GroundTruth Project
- Sharon Burke, Senior Advisor, International Security Program, New America

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Devin Terrill: Hello, so welcome, thank you so much for coming out today. My name is Devin Terrill, I am the program officer for media at the Stanley Foundation. The Stanley foundation is a nonpartisan, private operating foundation that focuses on multilateral solutions to global peace and security issues. In addition to focusing on climate change we are focused on building resilience to mass violence and atrocities. And it has been very wonderful to collaborate with New America and Ground Truth films to put together this event. I'm also very happy to be able

feature such powerful reporting from Laura Heaton and Nicole Zebeki. With that, I would like to hand it over to Beth Murphy from Ground Truth films who will introduce the film, we'll play the film and then we will hopefully have a very interesting conversation after, thanks.

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Beth: Thank you Devin, it's wonderful to be here, my name is Beth Murphy, I'm director of films at the Ground Truth Project. The Ground Truth Project is an international media organization and we have a very special focus on training, mentoring and supporting the next generation of journalists and film makers. Our two co-founders are here, Charlie Senate and Kevin Grant. And we are so thrilled to have been able to support the incredible reporting that Nicki and Laura have done over the past 18 months, it really was an 18 month journey, reporting from Somalia and Kenya and from two international climate change summits, COP 21 and COP 22.

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And the culmination of this incredible reporting is ... is happening right now. The film making and some of the photo journalism that was done was broadcast last night on ABC News Nightline and Laura Heaton's written report along with photography by Nicki is in the Foreign Policy Magazine this month, there are many, many copies in the back I hope you'll ... you'll grab one.

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And we've also created now this short film, a verite film that is going to have its life both on the Foreign Policy website as part of their digital rollout for the project as well as submitting it now to film festivals and have additional broadcasts life down the road, there's also a podcast to listen to if you'd like to check that out on our website.

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With the films that we do, we really want to have an impact with them and we try to build impact campaigns around them and so it's very, very special to us to have this collaboration with New America and with the Stanley Foundation to really kick off the impact events for this film, A Climate for Conflict . This matters to us to be able to have an impact and to be able to really use the film as a catalyst for conversation, for understanding and ultimately for action. So thank you so much for been here today.

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FILM BEGINS

FILM ENDS

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Sharon Burke: Thank you very much for coming, I'm going to get started even though the lights are still out, I'm sure you can see me, there you go. I'm Sharon Burke, I'm a senior advisor here at New America and I run our resource security program which is researching, looking at the links between natural resources and national security.

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And specifically as a former assistant secretary of defense, what I'm interested in is how you build security because the last 15 years have taught us that fighting wars and being war fighters is not enough we also need to figure out how to build security. And so it's a great pleasure for me to be here today to talk about this with this audience and at this point I would like to invite our panel to come on up. And I will introduce them if you will come on up please.

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Panel comes up, Sharon directs them where to sit

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Sharon Burke: This is a great panel and let me introduce them to you. First we have Nicole (??) and Laura Heaton. These are the two reporters who reported on this story and they're going to tell you more about that. We're going to start off by talking to them about what they did. Laura is a writer and journalist based in Nairobi, Kenya and she's been doing reporting there for some time now, focusing on human rights, on women's rights, on environmental degradation, on a whole range of issues.

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And has ... her reporting has been in many, many different publications, some you would have heard of like the New York Times and the Foreign Policy that you can get here in the print edition, is a wonderful example of her written work. But ... that's Laura sorry and Nicole is the first one there. It's a great partnership between these two and they've been working together for some time.

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Nicole is a photo journalist who's had a lot of experience with, I think you were at Alliance France Press for some time also based in Kenya. And I think what's really great about this project is the way these two people work together, with images, with photographs, with stories, with words and so we're going to get them to tell you more about their partnership. Next we have Dr. Cheikh Mbow who is the executive director of START International.

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He is the scientist on the panel, we have to have a scientist because this is complicated and we're lucky because that's the mission of START, is to explain the science behind environmental degradation to a range of audiences with a focus on African and Asia Pacific. He himself also has worked at the World Agro Forestry center where he was the senior scientist, so we're

delighted to have him here today. Next to him we have Jon Kurtz who is with Mercy Corps, he's the director of research and learning there at Mercy Corps.

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This is a great organization, it's a humanitarian organization that's directly involved in just about everything I think like humanitarian relief, development projects, peace building, conflict settling, all of this, the full range. One of the things I really particularly like about Mercy Corps and we're very lucky to have Jon here because it's really his bailey wick, is they are also doing a lot of work to think about these challenges and to use data and analytics to understand the roots of conflict, the roots of insecurity, the roots of misery and how do you best make an investment in a different kind of world, so we are delighted to have you here.

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Next to him is Vice Admiral Lee Gunn. So Vice Admiral Gunn I've known for a little while and can say first of all what you should know this is a highly decorated military veteran who wore three stars on his shoulder before he retired from 35 years of service in the Navy and those ... I think his last position was Inspector General and he's been a high level officer.

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But he's also been a war time commander and has had you know, tens of thousands of people under his command. And one of those commands ... he's what we call in the Navy a SWO, so a surface warfare officer, he's a ship driver. Or more to the point towards the end of his career he got other people to drive the ships and told them where to go. At one point in his career in 1995, he was the deputy task commander, taskforce commander in Somalia, so he has a different experience of this.

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But also I want to be clear that he's on the military advisory board of CNA, he's a vice chairman of that which ... this man could have done anything with his post military career and he's given a lot of his time and attention to climate change and water resources and energy and how they relate to security. So we're delighted to have all of you here. Let me start the conversation with Nicole and with Laura, Nicole and Laura to talk about how did you start this reporting? And I know that the Ground Truth project has been supporting you for about 18 months but you started your interest in this particular story, started sooner. So how did you come to it?

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Laura: So I've been living in Kenya for seven years and I had learned about a project that sounded really fascinating to me that UNDP, UN Development Program based in Kenya was doing a whole survey in Somalia looking at how local communities are adapting to climate change. They're putting together a big policy report that was going to help ... it was actually a kind of pre requisite for Somalia to be eligible for a lot of environmental funding that exists in the world for developing countries and countries in post conflicts.

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In talking to some people who are working on that survey you know I thought how fascinating to really go to the root causes of this, to talk to elders, to get their insights on what it takes to combat climate change, environmental degradation, how do they understand these issues in their own community and what are they doing personally over generations, you know, developing these traditions to cope with extreme climate because Somalia has always had extreme climate and people have really quite ... quite well developed resiliency techniques.

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So in ... in talking to them a bit about this project that they were doing this massive survey in 2012, I think and '13, it came up that there was actually this old collection of photographs. And we call it ... we've come to call it like an archive but what it really turned out to be was tens of thousands of photographs that were stashed in a woman's attic in a house in the British countryside.

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And the backstory was that she was a researcher in Somalia in the 80's and she had worked on the only land survey, comprehensive land survey ever undertaken in Somalia. And she had been working with a leading climate scientist, environmental ... we call him ... at the time we didn't talk about climate scientists but he was a Cambridge educated ecologist named Dr. Murray Watson.

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And he led this team that did this land survey over many years. If you pick up a copy of Foreign Policy in the back of the room you'll see a bit more about his story. But basically what we did is I went to the UK to ...you know, kind of on a whim, like we'll see how this pans out. And this woman that ... her name is Jenny, she was very welcoming, she said you know this is a huge array of material that Dr. Watson saved from 1991.

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He saw what was happening as the country devolved into civil war and he thought if we don't ... if I don't take this out it's going to probably be lost forever. And as we know very sadly now after a quarter century of conflict that's exactly what would have happened, we would never have had all of this material.

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So working with Dr. Watson's family, I started thinking about how to do a project that might go back and see whether there was much change because we had all of these photographs. The tragic twist in all of this but also the real irony is that in 2008, Dr. Watson himself was kidnapped by Al Shabaab. He was in southern Somalia doing a land survey of this river system

for the UN, he was ambushed and he and his Kenyan colleague and engineer he was travelling with were kidnapped, they've never been heard from since.

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So there was a real sense from the family's perspective too of wanting ... you know wanting to not just do an expose on him but how could this work that he had worked really risked his life to save could be used to look at issues in Somalia today, a place that he loved so dearly. So that's when Nicki and I teamed up because I felt like I'm a writer and I thought immediately that this has to be a project that we team up and do the visuals from the beginning.

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And so we basically started ... we went to the UK together and we went and saw the images and felt like, we don't know what we'll find, like if we can try to re trace Dr. Watson's steps to some extent, following the hand drawn maps he had also left behind, it really was like a bit of a treasure hunt to see what we ... we would find and we weren't sure that it would be a dramatic visual contrast, but we set off and that's ... that was the journey and along the way we met all of these people, so.

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Nicki: I think you've kind of taken a good ... good stab at everything.

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Sharon Burke: Well I think one thing I'd like to ask you, you in particular Nicki is, well first of all was it what you were expecting? You saw all these archival photographs but also you were in a dangerous place and in a ... not only that but in a tragic place that's in the middle of a historic drought right now I believe that something like half the country is considered to be at risk which is six million people, the population of Somalia now is about 12 million people.

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So six million people are at risk for food insecurity and ... and a portion of that for starvation. So you as a photographer, and you can see Nicki's images that we've posted some of them, there's post cards that you can take with you and of course she filmed this as well. You as a filmmaker can you talk to us a little bit about what it feels like and how your process for deciding what images and how you work together on that?

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Nicki: Yeah, absolutely. I mean I think you ... you brought up the challenges with security and also the challenges of really knowing what story we were going to find on the ground. And those things go together, we don't have all the information, we wish we had on what's happening in Somalia. We as scientists simply can't be on the ground gathering it the way that they can in other parts of the world. At the same time that same challenge existed for us, we put a tremendous amount of time and research into planning every trip that we made.

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And our goal was to go in to sort of retrace some of the steps of these scientists that were there in the late 70's and the early 80's and see how this landscape had been transformed and we didn't know what we would find. In the end it was unfortunately quite dramatic, I think you can see in one of the pages in the Foreign Policy magazine in the back a series of photos from the archive and photos that we ... that I took on this journey re tracing these steps and it's stunning to see how the land has been degraded, how water resources and grazing lands are becoming ever more scarce.

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And on this journey we met dozens and dozens of Somalis whose lives have been transformed today, I think that that was a key takeaway for us, that this is not a problem that's facing future generations, an entire country and obviously this happening in many other parts of the world as well is having their lives transformed today, so this is a problem for now. And I think that's something we really hope to try to highlight in the images and in the film and in Laura's writing as well.

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Sharon Burke: So you had to ... I mean so I assume that you had to travel ... I know that you did because I listened to your podcast but you had to travel with security everywhere you went right? Was that ... Did that make it hard for you to take pictures? Did it make it hard for you to connect with people and to tell their stories?

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Nicki: Yeah, it's a real challenge. I mean out ... in Hargessa we didn't have to have security but that's really one of the only places that that was true, legally you have to have special police units, if you're in Puntland or Somaliland traveling with you, in Mogadishu we had to have private security. So that's ...

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Sharon: And in the refugee camp as well right?

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Nicki: In the refugee camp as well you have to have Kenyan police. So it's a huge challenge not only because having security forces looming around you is a far less than ideal way of sort of connecting and building trust and allowing you know ... I think that in any situation as a journalist you go in and you build a relationship with the people that you work with and it's built on trust, it's built respect.

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And it was especially challenging to have military or police with you while you're trying to ... to do that. We also had very little time in the places we were. And so I think one of the things that we tried to do was to not go only once to meet people, to go to meet them and then to return and then to return again if we could and to try to sort of build that trust slowly and create as much intimacy and authenticity to the stories that they shared with us as we were able to do, so.

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Sharon: You also spoke to some very impressive Somali experts you know I was reading your work and watching the film was very impressed at how many people, highly qualified scientists are really dedicated to this and are ...and are ... have gone back to Somalia in some cases. Can you tell us a little bit about their stories too because a number of them were in that film?

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Laura: Yeah. So there ... there ... it's a small but like quite mighty number of people who are so devoted to this topic and we spent a lot of time, Dr. Abdirisak who ... who's voice was in the film and he's kind of the centerpiece of the ... of the Foreign Policy piece. He is a remarkable guy, he was in government for a long time.

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He was part of the national range agency which is the ... which is this sort of environmental ministry essentially that was functioning in ... it was setup in the late 70's in response to a massive drought that happened in the mid 70's in Somalia. And one of the quite striking points that Dr. Abdirisak and the former head of National Range Agency have made to us is you know it was ... there obviously quite has ... the aftermath to (??) President Siad Barre for anything but certainly on the environment this was ... he was strong on the environment.

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And he managed to ... to get a lot of resources for the National Range Agency. Apart from the military it was the best funded government agency in the country which is quite striking. And when you think about the way Somalia deals with environmental issues today, that's ... that says a lot. It's ... I would say the other really important person that we met along the way was Dr. Buri Hamsa who's voice was also in the film.

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And then as you learn at the end of the film, it's actually about a month after we had interviewed him, and you'd know we'd come ... come away from the interview saying alright, this guy is like a very polished politician. He's Canadian Somali, he's moved back to Somalia to work on environmental issues and he ... you know he's the climate conflict nexus guy in the film. And a month after we interviewed him he was killed in this terrorist attack in downtown Mogadishu.

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And it was particularly, I mean we ... we felt personally quite devastated to learn this news. It also just felt like his words were even more poignant than we had imagined because one of the things that he talked to us about a lot was that you know he was quite encouraged by the fact that they had put their national adaptation program together, they were going to be eligible now for several rounds of environmental funding. But he also admitted that it's really hard to get people to come to ... donors to come to Somalia and see the projects.

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And he says, you know, this is, donors say to me, you guys need to get your security under, you know, under control and then ... and then we'll come. And his point was if we're not addressing these environmental issues, if we're not looking at climate change and environmental destruction like now, this is going ... the security is going to become harder and harder for us to cope with. And he's one of the people in the film who talked a lot about deforestation and desertification is what is the leading cause for radicalization.

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People get pushed to extremes and then they have no choice but to turn to the extremists who can offer them a plate of rice, as Fatima says. So it felt like when we heard of his death it just really kind of highlighted to us just how real his concerns are and also what a dilemma people like him and Dr. Abdirisak face trying to do this work.

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Sharon: Jon Kurtz of Mercy Corps could you tell us a little more about ... give us pull back a little bit and tell us what the situation in Somalia is right now? And you know, in your work to understand resilience, peace building, what the challenges are? And just how bad the situation is right now? So that our audience gets a sense of that.

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John Kurtz: Sure. And to start I really want to say that I was struck and inspired by the film, I feel like a I know a fair bit about this topic and about Somalia but it certainly gave me a new perspective on it and really brought out the human agency and choices and how they're really constrained. So that's I think great in terms of raising awareness.

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Obviously the key is in translating that awareness into effective action and then ... I mean in Somalia right now I think Sharon you described it pretty well in terms of the ... the situation of drought and pending famine. We know that there as well as other places, a lot of that is driven by conflict, as the primary driver of food insecurity and drought. I guess the point I would ... I'd like to make is that there's sort of two storylines that I see within the film that I think would be helpful to unpack a little bit.

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They really are around the two types of conflict that were highlighted. The first is really this inter-communal conflict and I think there was the story of Ali's cousin who was shot, you know over this competition at ... at the well. And this is something that we see is ... is quite common both in Somalia and the Somali region of Ethiopia, in the Sahel, in maybe pastoral conflict and maybe farmer/ pastoral conflict, largely driven I think as rightly pointed out in the film by resource constraints, scarcity, that are made worse by climate change.

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The other type of violence though that is highlighted was around violent extremism in particular for Somalia Al Shabaab. And here it's interesting because I think the film also points to livelihood insecurity, driven by climate change as an underlying cause, you know of support for or engagement in Al Shabaab. And certainly you know the stories that we're told are true and economic conditions and financial incentives do play a role in ... in ... in promoting extremist groups and armed opposition groups.

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But our research in Somalia as well as in places like Afghanistan and Nigeria are really pointing to governance related grievances as ... as drivers of support for armed opposition groups. So it's sort of distinguishing that political violence, and what is the nature of why people would support groups like Shabaab and I ... and I think for us it's looking more at issues around injustice, government discrimination, corruption, abuses by security forces on top of joblessness you know are really sort of you know creating a tipping point.

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And then I'll let, the scientist on the panel sort of explain more of ... of ... of where that comes from. But for us the implication is you know in addition to trying to grow our way out of these challenges of ... of sort of the climate conflict nexus whether that's environmental side or ... or growth in terms of jobs, there is a real underlying governance issues in Somalia's case in point but I think Nigeria, Yemen, you know the list goes on, are also really important to understand in that light.

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Sharon: Let me ask Vice Admiral Gunn a quick question and then Dr. Mbow you're on deck I want you to talk about the science behind this. The question I want to ask you is what Jon was just saying seems to me is very consistent with what the Pentagon and with what the organization you're affiliated with right now CNA has ... how it has described climate change as instability accelerant, so not so much a cause of war. Could you tell us a little bit more about that or even just answer the question, do you think climate change is a legitimate national security concern?

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Admiral Gunn: Yes, I do. Absolutely. The entire military advisory board of CNA now 35 retired three and four star flag officers from all services, of all political stripes, for the last 12, 13 years have been looking at the national security implications of climate, water, food and energy. So we brought in 2006 and 2007 I think for the first time to the public consciousness the notion that there is a very definite connection between the conditions that we see changing around the world, it's effect on the people who live in the places that are most severely impacted and the resulting insecurity that they suffer and the consequence management that the military has always been pretty good at.

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And as a matter of fact for the first 25 years of my Navy career I characterized my service and that of my comrades as consequence management.

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But with the fall of the Soviet Union and in the dozen or so years that follow the defense department in a leading position but all of the senior officers in the military from all services became aware that we need to do more, that we needed to help the government, the US government and other governments anticipate the problems that would result from the changing climate.

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And that we needed to be out in front in the Defense department itself, in a job that ... that Sharon did, in operational energy, in understanding and been good stewards of the energy that is expended in the military and executed in the missions that the American people task us with. This accelerant of instability that Sharon was talking about is exactly what we're seeing around the world as the conditions become more severe, as the impact on populations ... and you talked about governance Jon.

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The weak and failing states which are already experiencing difficulty providing services to their people, providing the security that I admire very much you ... the situation you two went in to, those ... those conditions are aggravated by the ... the impact that the changes have on individual people, the moving margins between agriculture of the farming kind and agriculture of the herding kind for example, as those margins move and we see them moving in various places around the world.

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People who used to succeed in one place have to go to somewhere else and in the movie one of your ... one of the people who was testifying to her situation said when she arrived, anticipating that things will be better, they in fact weren't.

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So we see this around the world and we've taken a couple of opportunities as the military advisory board to put out reports that testify to this connection.

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Sharon: So it's not uncommon for uniformed military to be looking at security as more than just war fighting?

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Admiral Gunn: Not at all. As a matter of fact there are a couple of dozen of us again three and four star retired officers who are part of the US Global Leadership Conference and our sole mission there is to reinforce the importance to the Congress and the Administration of the budget that supports development and diplomacy because we have seen the impact of the relatively small investment Americans make in their diplomatic services and in the development process the great leverage that those ... that that investment has in avoiding problems that eventually would have to be dealt with by the military if they weren't dealt with on a ... on a more humanitarian plane.

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Sharon: So Cheikh I want to expand that back out because I mean Somalia has a long, amazing history, I think that I was reading that the ancient Egyptians used to call it the land of the gods because it was so prosperous in ancient times. And so this is a country that's been a trading nation, it's pastoralist but it's also been a very active trader in the world for a long time, for thousands of years.

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Tough colonial history where the country was divided up among the Italians, the British and the French and that was a legacy that continues to be problematic in the Cold War, again, a tug of war between the United States and the Soviet Union. And a dictator that played both sides and did some good things but also some not so good things. And then the fall into civil war in 1991, and it's been war ever since.

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I think there are some hopes now, some parts of the country a little more stable than other parts, there's some hopes that maybe Somalia can turn the corner. And of course now as I said there's a million people at least in refugee camps, a million people internally displaced. There's a number ... there's a large Somali population in this country which has been to our great benefit but this is not new for Somalia having an arid climate and been close to the edge.

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Does climate change put them over the edge? Can you talk to us about the science and ... and what it means for this region? And you know more broadly? But the science is hard to

understand and that's what your job is to make it easy. So maybe you could talk a little bit about the science?

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Cheikh: Thank you, thank you very much Sharon, thank you for my co panelists and looking forward to the interaction with the panel, with the audience here. The situation in Somalia is very common in Africa, the conditions in Somalia are very similar to many other conditions in the west of Africa, if you take the Sahel straight. It's a condition of two or three month's rainfall at best every year. Over 12 months you only have two or three months of rainfall.

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At best you will have a total rainfall of 250 millimeters every year. And the productivity for livestock and for human beings depends to those 350 millimeters of two months every year. So you can just think in your imagination, there will never be enough productivity if no intervention of technology or innovation is applied to save water for productivity.

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What is happening in Somalia is related to several connected factors and I will try to pitch out just two of them. The first one is we take ... we take ... we take it as climate change. It's a whole change in the humidity transfer from the ocean. Humidity comes from two sources, either from the ocean, from evaporation or from trees, evapotranspiration.

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From ocean the temperature of the ocean has been changing, you all know about El Nino, La Nina, you all know about the planet warming which is affecting systems of temperature. This has an implication directly on the wind and its characteristic, and the direction of wind. If wind has less moisture, it's very likely that we'll have less rainfall on the continent. If wind changes direction it's likely that a lot of moisture will be diverted to other places.

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At the same time we have drought in Somalia, you have been hear ... hearing about flooding in Bangladesh and other continents, those things are very late. It's all about the disturbances in the way the climate patterns are established in that region, so the sea surface temperature and the climate change is certainly one big thing to be ... to pitch out. The second thing which is not something you always see in the literature is related to the deforestation in other places, deforestation in Tanzania, deforestation in Kenya, deforestation in the Congo basin believe me are affecting the distribution of water which is influencing the productivity in Somalia.

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By doing that when the wind comes in the continent if there is no evaporation, that the humidity in the air dries out very quickly. They need to build up the humidity as they cross the continent to be able to provide water in different places. The same thing is happening in West

Africa, it's a monsoon, we call it a monsoon process, it's coming from low ... low ... low pressure ... high pressure to low pressure and the high pressure and the high pressure has been warmed now and the low pressure is so far away and land has been so much, you know, deforested that the wind cannot carry a lot of humidity.

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So what we have is a shortage of water and sometimes that shortage of water can be up to 30% in the average evaluation we get, so the little we get is caught up by more than 30% in many instances.

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So that little water which is coming forms also another kind of important climate pattern which is the increase of temperature. You have little water and it evaporates the next day, there's little which goes in the soil that creates the condition for the plants to grow. And this has the direct consequences ... a lot of indirect consequences is something that movie has started with is the degradation of land because that water becomes very small.

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The starting of the rainy season is late and the end of the rainy season too soon so the rainy season is getting shorter. But at the same time in the middle of the rainy season you can have many ... many events. Extreme rains, you know 80% of the overall seasonal rain can rain in two days. This creates degradation of land, flooding, whatever. Another issue is sometimes in the middle of the rainy season when you expect plants to get water it's ... the water does not come, you call it dry spells.

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And that small water we need for the plant to mature, that water is not there and creates big famine. So there is so many small factors that can modulate the ... the impact of climate change on the ground that we have to pay attention to those ... those factors. So the indirect effect is land degradation, you know competition for the small resources, deforestation. Charcoal is response to adaptation but at the same time it accelerates climate change.

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Soil fertility loss, so many other, you know secondary factors that can you know amplify the resource scarcity and the threat on to resources. So climate, you know and trying to connect it with conflict which is not my area so much, I used to say that ... and 2009 I talked in a conference in Ouagadougou that the crisis in the 21st century will not be ideological, it will be natural resource driven and in any instances we are seeing that.

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But the conflicts are not exclusively related to climate because similar countries with similar climate conditions with a better system would survive those kind of conflicts but climate change is certainly a modulator and an amplifier of those ... of those conflicts.

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Sharon: So in way it's a hopefulness which is not every drought is going to cause a war?

Sheikh: Yes, yes exactly.

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Sharon: But Jon maybe you can comment on that because you've done a lot of work on that about building societal resilience to this. So how do you do that? How do you untangle that knot? If not every drought causes a war but it does in Somalia?

01:00:10

Jon Kurtz: I mean to start let's ... let's think about targeting right. So there's certain conditions under which that link is more likely to happen, you know, global warming is going to lead to armed conflict and Somalia typifies all those conditions that you mentioned. So I guess to start when we think about investments targeting conflict affected fragile states including adaptation funding.

01:00:34

The second from our side on a programmatic level is really thinking about investing in conflict prevention and management as part of natural resource management and climate change adaptation programs so ... so we have a great example of this in ... in the Somali region of Ethiopia in the lead up to the 2011 drought there. And then in this case ...

01:00:52

Sharon: Which was devastating really, 260,000 ...

01:00:55

Jon Kurtz: Right on a similar magnitude of ... of what's happening now. And there I mean the story essentially unfolded as this was a natural resource management program but it was working a lot around building peace agreements that ... that governed how conflicting groups share resources and then doing a lot of capacity building around traditional and official ... local government officials on how to enforce those agreements. So the 2011 drought rolls around, not a huge surprise but in those areas where these peace accords are taking root, people had a lot more mobility to be able to access pasture and water further afield.

01:01:28

So it was sort the opposite of Ali's cousin's story where he ... they couldn't negotiate access to ... to land and water in neighboring areas. So the upshot is, you know, it was both less conflict and better security in those areas but also a dividend around those ... those households were able to really cope with that severe drought without losing as many livestock, or you know, losing as many assets and were able to recover ... recover more quickly.

01:01:54

So ... so for us we're trying to look for kind of those win-win solutions that both build conflict prevention as well as sort of the systems that people rely on to support themselves when there is an upshot.

01:02:04

Sharon: And you think that's (??snowball)? You can find those win-win solutions?

01:02:08

Jon: I mean we have a few examples. I ... I think it's also important to recognize that there are things that clearly don't work that do receive a lot of investment at the moment. So obviously places that are more secure are going to be more drought resilient generally, that's pretty obvious. But we've also seen ways of addressing insecurity that work against resilience.

01:02:29

So for example in northern Uganda in the Karamoja region there insecurity has been addressed largely by disarmament and settlement of largely pastoral groups. So the drought that hit there, not as severe but we saw a lot more vulnerability to the drought because people were clustered in areas, they didn't have the mobility and freedom of movement that they did to be able to rely on traditional mechanisms. So ... so it's sort of how do you do ... how do you address insecurity in ways that also has resilience dividends, is the ... is what we're looking for.

01:02:57

Sharon: I mean Sheikh do you think we know enough about climate change? There's a lot of uncertainties involved to ... to bring it in to the kind of planning that Jon is talking about?

01:03:04

Sheikh: Yeah. If I just take the picture of climate change or the rhetoric behind climate change and put it aside and just look at facts. Let's go back to West Africa and east Africa and look at the facts. You mentioned the 1997 drought, you mentioned the 2007 drought, you mentioned the 2011 drought, you mentioned the 2000 drought, I think just based on these facts, you can call it whatever you want climate change or not, these are real facts where water scarcity and change in weather pattern are creating serious problems on the ground.

01:03:32

I don't mind we call it climate change or something else, that's ... that's really the ... the fact. And if you take the temperature it's the same. I personally take measurement, station measurement not satellite based, station measurement over 30 years, we did it in Burkina Faso, we did it in Senegal, the temperature is increasing like 1.5 to 2 degrees and this is not minimal when the ... the rate of evaporation and the degrees of the plant requires a certain temperature to grow and to mature, that's a real concern.

01:04:05

Same with rainfall, we take daily rainfall of 30 days, daily, every day, and what we notice is higher frequency of longer dry spells, higher frequency of longer dry spells, the dry spells of two weeks, their frequency are higher during the rainy season.

01:04:24

Imagine that you have a plant which goes over two months, after one month you have three months ... three weeks of rainfall shortage, there's no way you can collect anything but small bio-mass, there is no millet, there is no maize. And this relates to the possibility of pests and diseases to be readily available to destroy the remaining crops, we're talking about the army worms now in Africa, we're talking about the (??) plants, we're talking about the locusts invasions. Those things comes as a ... as a ... as a side factor, as a side vine related to those changes in the weather that affect crops and productivity.

01:05:04

So I don't take the rhetoric of climate change which I ... I believe in many respects because I ... I'm IPCC member, I was part of the guys who was doing this report and I believe on what they said because it's based on robo science and modelling and stuff. But just to bring it to ... to a common understanding just take the real facts and observe what those facts are and you'll understand that climate plays a big role in ... in resource and resource priority.

01:05:30

Sharon: I want to continue on this theme of uncertainty and take it to Lee. But first to Laura, I feel like to some degree your reporting is a portrait on uncertainty on how people, actually the human cost in volatility, is that fair to say that what you were talking about is the people don't know?

01:05:48

Laura: Absolutely, they don't know. And I ... I think there's an interesting point from the story of Ali the ... the man whose cousin was killed over this access to pasture land and one of the things that we found was quite poignant as ... you know you hear a lot about community violence in Somalia like clan based violence. And we were in this little village ... outside of this little village, it was very remote, talking to this family, was maybe like five different houses in this homestead all sort of centered around the well and one of the things that came out as we talked to them about the ... the ... what had happened in the two weeks since the killing was

you know several of the cousins from one of the families had gone off looking for the shooter who had fled immediately after the attack.

01:06:37

And they were saying us to us we are ... you know, we need to find this because ... and he will be killed, like that's the way this works is like there's sort of a ... the way that justice kind of works in that community far from the reach of the Somali government, is one person dies, someone else has to die in exchange from the family.

01:07:00

And so they said, we have to find that guy, if we don't find him then someone else from his family will likely pay that price. And it was really striking to us like having read a lot of reports about inter communal violence in Somalia and thinking, here we are standing at the cusp of what could unfold over the next 20 years as inter communal violence and like we could come back to this place 20 years later and the community could tell us, oh you know there was ... there's these two families have been feuding for many years, it's engulfed our whole area.

01:07:34

The woman whose portrait is in the back who was Ali's ... she's Ali's daughter so like who knows how that will affect her life over the next 20 years. And here we were standing just at the cusp of it where we're saying this is about ... a piece of pasture land and but it can take on all of these other contours as time progresses and ...

01:07:54

Nicki: Just to add on to what Laura said, you know Somali has been hot and dry for a long time and this is not new but droughts are becoming more frequent, they're becoming more severe and that's breaking down people's natural resistance, so they know how to cope when the drought happens every ten years. They don't know to cope and it's impossible when you're, you know sort of, you know, have this narrow buffer already to do that every single year and it's breaking down people's natural ... natural resistance and natural methods of survival.

01:08:27

And I think that's what we're seeing right now is that people are just been pushed beyond the brink.

01:08:32

Sharon: I wonder ... I'm going to ask all of you one last question but except for Lee and then we'll bring in the audience and let them ask questions too. The question I'm going to ask you, I'm putting you on warning so you can think about it for a minute. So this is a pretty bleak picture and you know this is a situation where there is a lot of strands tangled up, what can we do? But Lee before we do that, I wanted to ask you and feel free anybody to comment on this too because I think you all might have thoughts on this.

01:09:00

Is do you think it's a good thing, an advantageous thing to connect the military defense, national security committee with the humanitarian, with the scientists, with the media on ... on an issue like this, is that a good thing? Or is it problematic? You now the military has it's own mission? What do you ... what do you think could be gained from connecting these communities?

01:09:24

Admiral Lee: Not only do I think it's a good thing, I think it's essential for a couple of reasons. One is that the American military is probably organizationally the most capable, large effort in the world. We are extraordinarily well organized, we are well funded, we are well equipped and we are well trained. It's evident over the last dozen years or so that that training can be adapted to humanitarian assistance and disaster response for example which became an official DoD, Defense Department mission just recently in 2008.

01:10:08

And the point was that until ... until then the assumption underlying our mission set was that if we were capable of dealing with the Soviet Union and the Warsaw Pact during the cold war we'd be easily able to handle humanitarian assistance and disaster relief. I can talk at length about how that works and how ... how it was true at the time.

01:10:33

But as humanitarian assistance and disaster relief and response become a more valuable commodity as the frequency as Nicole points out of the things that people have learned to experience over the years on an occasional basis now are coming at them repeatedly and therefore the US military on behalf of the American people will be involved in a humanitarian response, it's really important that we organize, train and equip for that.

01:11:05

At the same time we have to become more and more aware of our surroundings, at least the different characterizations of our ... of our surroundings. It used to be we were concerned about the intelligence aspect, the threat from a fairly unified, foreign adversary. It's not that way anymore, the world is fragmented the ... the climate change in my view is statistical, it's very difficult to tie an individual event to the change in climate but collectively, statistically as you pointed out, the frequency of these things is ... is increasing.

01:11:41

Yesterday Bangladesh was hit with another one of those cyclones, typhoon, hurricane, if you're in our part of the world and it's devastated every time. And India anticipates that Bangladesh will increasingly be subjected to this kind of ... of onslaught and therefore has built a fence between India and Bangladesh to keep the Bangladeshis from entering India.

01:12:11

I mean so this is an example of the state on state consequences which we could also extend to the shrinkage of Lake Chad and Lake Victoria in ... in Africa and the water shed that results from that, anyway.

01:12:24

Sharon: I'm going to make a comment that I do not mean to be political because I don't consider this to be a partisan issue and then we'll get into what you think the solutions might be which is that if we've learned nothing over the last 15 years it's that our means of war which we are very good at, are not enough and certainly that's clear in Somalia. We cannot kill our way out of the problem with Al Shabaab, we cannot use strictly military means if you want to fix everything that's wrong and rebuild this country.

01:13:02

It doesn't mean that I know the answers but I do know that it's not enough that we have a good military machine, we have to be good at diplomacy, at development, at other kinds of investments. And I very much am concerned about this administration's lack of faith and understanding at least if you look at their budget numbers of how important that is.

01:13:27

And again if we've learned nothing as a military over the last 15 years is that it's not enough to fight a war, that you have to be able to build security and that's not strictly at the end of a gun and most people I know in uniform would agree with that so ... so what do we do? Sheikh, you're not even smiling, so what do we do?

01:13:47

Sheikh: I was just ... yes I was just thinking that this debate could be for a week and then we keep on going. First of all yeah, very good observation, I think my perspective on security is that there is one inclusive security, there is one security where you put the military security inside. You have water security, energy security, food security, all of them are extremely important dimensions security.

01:14:12

In terms of solutions I would give you maybe two layers, the first layer is the regional and national policy trend which is happening in Africa in general and this has been pushed by the world conventions under the Bonn land neutrality ... land degradation neutrality and also the African Union under the vision African Union 2063.

01:14:36

And ... and the program itself is trying to do land rehabilitation for 100 million hectares of degraded land across Africa and Ethiopia has gone through their plans and Kenya is going

through their plans and we hope that a lot of investment will be put in the land in ... in having the right tree in the right place. In ... if you see in the movie most of those trees are you know stony trees of you know acacia or ... or (??) trying to see how much we can domesticate more of toe trees to be grown in the right place.

01:15:09

You now, importing trees from different ecologies through the ... you know the foreign ecologies doesn't work, I call it exotic trees and it never works you know based on the experience we saw in Africa. African Union is developing also a big program which is called the Great Green Wall, I'm not sure if everyone has heard about it. It's an ambitious program which is trying to ... to build a kind of integrated livelihood program with trees as the main engine of land rehabilitation from Dakar to (??) and it's very ambitious.

01:15:43

But the big problem which the African Development Bank had to fund it is to find secure areas where they can invest money. The problem is when you invest money and there is no security, the monitoring and the surveying it becomes a bit difficult. So it's a big ... big conundrum for the great green wall as well.

01:16:00

So at ... at regional level there are so many initiatives. Now comes to local level and I worked for five years as climate change department of the World Agroforestry Center, we were trying to work a lot on domesticated plans to create not only trees but trees that matter for people, trees that can bring fruits, trees that can bring fiber and firewood, you mentioned it. If the little trees which are you know remaining on the land is destroyed for charcoal and by the way the charcoal is not only for local markets it can be for the peninsula, Arabic peninsula market and that creates a dimension of tele-connections and the security issues, we did not mention it here.

01:16:39

But that requests, that aggressive of tree plantations for local livelihood needs is addressed, the right trees for the right livelihood, the right trees for the right place. And we can do it in several ways, we can do it around farms to improve soil fertility, we can do it to reduce erosion. We can also do it to reduce invasive species.

01:17:02

Most of the sand which has been mobilized by erosion is going to have a side effect on the existing freshwaters, it's going to create a big clogging on the existing freshwater which was used for fisheries and other things. So to me the solution is to create a bottom-up approach where context based knowledge is used to plant more trees and to rehabilitate eco systems to improve livelihoods and life in those harsh conditions.

01:17:30

Sharon: Jon a context based approach sounds very Mercy Corps to me. But the two of you too ... let's let Jon follow on that. But I'd be interested if in the people you spoke to, if they had ideas about what might work for them? What about Mercy Corps? How is Mercy Corps solving this?

01:17:46

Jon: So my response up until recently would have been let's ... let's work on figuring out the plumbing of this problem said. So one of the technical solutions whether they be on the eco system side or the peace building side, institutional strengthening side, you know what are those? How can we generate evidence and put in front of national governments, international actors to invest in the right things?

01:18:08

And it pains me to say this as a researcher but I'm not sure evidence is the gap at the moment or, you know, the ... is the leverage point that we really need to work on at ... at this point building on your point general I think it's really protecting the spickets of water coming and from what we see including the ... the draft budget from the Administration from last week you know major developmental humanitarian accounts are going to be cut by up to 50%.

-1:18:30

So again those would sort of eliminate our ability to implement a range of solutions that we already have and try others but I guess is a starting point been able to ... to defend and not increase certain pots that would go towards addressing some of the root causes of the conflict climate nexus.

01:18:49a

Sharon: Okay. And while we're hearing what people you talked to said, get ready if you have a question, the microphone is going to be around. Please wait for the mic and identify yourself, say who you are. If you would like to say who you're affiliation is that would be great. We do have a big audience online, so make sure you wait for the mic. So the people that you talked to, do they have ideas about what would work?

01:19:09

Laura: So yeah. As you'll see in the Foreign Policy piece, the scene that I decided to end on and talked to Nicki quite a lot about was, you know throughout the time that we were doing this reporting we ... we really did want to sort of bring it back to some hopeful, you know, bright spot in all of this. And for both if us actually it's phenomenal to me too because we were just spending time at the world agroforestry center in Nairobi because Dr. Abdirizak has ... has this initiative in mind, and it's really early stages, I don't want to overstate it and say it's going to be this sort of panacea approach.

01:19:46

But really his hope is to work with the ... the seed bank at the World Agro Forestry Center in Nairobi and eventually reintroduce some of these indigenous plants that have either gone extinct in Somalia or they've ... there's so little bio diversity left that they've kind of become rather mutated. So he lives in a region called Puntland that is relatively safe and so what you see is Somalia is looking for pockets of stability where they can try out projects with the ... the ambition that if that works in this small area they can expand out. And so going to the seed bank with him and meeting with the director of the seed bank we felt encouraged, I mean it's early stages, who knows who's going to fund it?

01:20:32

I mean it's really ... we'll see what happens but it felt like a moment of hope in that and he's ...you know he's very committed to this ... this initiative, so we'll see.

01:20:42

Nicki: I think taking the slightly more macro approach, you know I think one of the things that will lead to real meaningful investment in these types of projects, is the recognition of the links between the environment, security and ... you know, we end our film, we start the story in the Foreign Policy piece in the late 70's, early 80's when the National Range Agency was other than the military the highest funded government agency.

01:27:01

And by the time we were interviewing Buri Hamza who is the state minister for environment was probably the least funded government organization. And one of Burre Hamza's jobs and what he lost his life doing was trying to advocate for this and make people understand that meaningful investment in security means protecting the environment and it means building a sustainable future for the people living in these ... in these countries. And I think recognizing that link and making those investments in real ways is a big part of what we need to do to build security.

01:27:46

Sharon: Thank you. So if you have a question please raise your hand and I think just to comment on that Jon and Lee and I were talking before too that it used to be that you could sequence these things, you could have your war and then deal with the destruction later and rebuild but that timeless line has really collapsed now. And you can't really, if you want to stabilize a situation and a war, you have to be investing in the root causes as well. Alright Andrew would you like to choose a victim?

01:22:16

Question: (??)

01:23:29

Sharon: Well Lee you know you're going to get that question (??) of a gun. And I'll just say yes in fact a US special operator was killed last month which was evidence that this is not just a policy shift, this is a shift on the ground. Do you have any thoughts on that? Especially you know you were ... this is like I'm sure brings back memories because of course Lee was there in 1995 helping to coordinate the retreat of American forces. I know it's a different time but?

01:23:28

General Lee: Yeah I have I think matured in my opinion of this and my guess is that 20 years ago I would have applauded without reservation the increasing pressure that will be put on Al Shabaab by US Special forces. I remain convinced that it will be effective. My concern is that it will only be effective in the short run and that our failure as a nation to deal with the diplomacy and development piece to provide an alternative.

01:24:34

I was in those refugee camps when the population was much smaller but they were there in northern Kenya and I saw that the conditions that people were surviving under. And my concern now as a human being and as a former naval officer is that if we fail to deal with the root causes, that it will not be enough to deal with the symptoms. Again this consequence management thing, I think the military is coming along, but I don't think we are entirely there.

01:25:04

And with each new change in leadership although I have great faith in the current leader of the defense department, with each new change in leadership then the potential is that the policy will shift and shift in the wrong direction. I'm concerned that at least I haven't seen any initiative on the part of the Administration to try to deal with the root causes and I'm concerned about that.

01:25:28

Sharon: Anybody else want to comment on that?

01:25:30

Nicki: I would just toss into this too that we're ... it's 25 years on and really I mean how many different iterations of armed groups have we seen operating in Somalia? So maybe Al Shabaab might be defeated but what iteration ... I mean Al Shabaab came from the Islamic Courts Union and they provided this tiny semblance of ... of security for ... and stability for a couple of years.

01:25:55

And in some of the readings I was doing, there was like a moment where people also felt really, encouraged by the ICU because they going to ... they were picking up municipal ... they had started municipal garbage collection again and they were like you know cleaning, literally cleaning up the city of Mogadishu. And so you know that was a hearts and minds campaigns that then as soon as the Ethiopians and the Americans teamed up and said, okay but they've

got these extremist elements, we've got to move on them, and then we have Al Shabaab. So I just feel like yeah, until these root causes are addressed it's just you know one name or another.

01:26:32

Admiral Lee: I started in Vietnam and we made the same mistake in Vietnam 50 years ago, 45 years ago.

01:26:39

Sharon: And I think you did a very good job of telling the stories of people who don't want to do this but you know I think the one gentleman said if you've got to choose between starvation and security, you're going to choose, you know, no one wants to starve. So, and Jon this is I mean this is the sequencing thing we were talking about too that people need to feel safe, they can't ... they can't live if they don't feel safe but they're not ... but the long term safety, the long term living has to be a bigger investment or different investment?

01:27:11

Jon Kurtz: I think so and I guess some of this gets back to human behavior as well, I mean there's some interesting observations, I mean Somalia is a bit you know unique in that you've got a new force that's comprised of Ethiopians largely and there might be some backlash there. But there is another dynamic that tends to go on in these situations of extreme drought where there are armed opposition groups where in times of plenty people give to Shabaab as a way of buying security. When times are tight like now there tends to be a lot more conflict, in the short term that's bad but it could yield a result like in northern Uganda where the LRA were eventually pushed out because they were just you know simply subsisting off, you know displaced people.

01:27:53

So it may be one where you know I defer to the experts on this one but, where you let that run its course a bit during ... during the drought rather than making a big push.

01:28:03

Sharon: Question, you asked it and you are living this, do you agree with those answers? So I realize it's not fair to turn it back on the audience but you identified yourself as an expert on this?

01:28:14

Audience member: Yeah. We struggled ... I mean this is actually something that the defense department has been trying to push for quite a while and there are all kinds of reasons why there is some significant push back within the agency, one of them is what Laura was alluding to, you know dealing some kind of deathblow to Al Shabaab in ... in some respects given what

we're seeing through Intel channels might have empowered ISIS in Somalia and so we had concerns about that.

01:28:37

But there are quite ... I think this issue of ... of allowing it to play its course I do ... I do see some ... I see some inherent logic in that because the minute a force like Al Shabaab becomes a much more predatory actor against the local population that that is obviously in the near term horrible for the local population but it does create a long term conflict resolution opportunity because it's going to disempower that group.

01:28:57

You could say the same with Boko Haram right now, it's a similar ... facing a similar situation, there's you know, terrible food insecurity, and Boko's main you know ... main way of ... of expressing itself these days seems to be blowing up 12 year old girls in local markets. That's not something that's going to endear themselves to local population but back to the broader point, until Nigeria and Somalia get their governance right, there's only so much ... there's only so much that can come of that opportunity right? So until ...

01:29:25

Sharon: It all ... it all weaves together but I think governance is a really important strand. Other questions or comments? The gentleman here in the front? Let's collect a couple?

01:29:37

Ken Myer: Ken Myer, retiree back in the 19th century the high plains were known as the great American desert because it got so little rain and it was felt that agriculture could not be conducted west of the 100th meridian which more or less goes through the center of Kansas and Nebraska.

01:29:56

Then they discovered the (??) aquifer and through tapping that, that's become a very rich agricultural area under five or six states out there. Has anybody looked for a similar aquifer under Somalia?

01:30:10

Sharon: Hold that, let's collect another question because we are coming towards the end so I want to make sure that we get ... I think right here you had a question?

01:30:17

Audience member: I saw in the film, it seems like there were sort of three ... at least three groups of people that were sort of mentioned there like fishermen who were having certain problems and then there were like cattle men or like shepherds who were having certain

problems and then there were farmers? I was wondering if you could talk about ... I mean how those types of problems are different? And if like one of them ... one of those problems is like easier to crack I guess?

01:30:38

Sharon: Okay. One more question and then we will let our panel answer.

01:30:42

Audience member: Just a few pages from your very fine article in this magazine, there's a four page paid advertisement from Madagascar bragging about oil exploration and making it more easy for outside governments to drill for oil in Madagascar, I happen to know that's ... it's a very fragile, sensitive island and it just shows the kind of confused message perhaps in Africa and I wondered if you comment on that? It's right here?

01:31:12

Sharon: And I will say that they don't control the advertising in the magazine so but I get your point, no but I get your point. And ... and would say that, I'll take the liberty of answering that a little bit and then Sheikh I think you can talk about the aquifer. But what ... what I would say to that is it's ... it's all a contradiction that we live in a global economy that's powered by fossil fuels, that I like electricity a lot and I drive a car, it happens to be a plug in hybrid but it still uses gasoline too.

01:31:45

That we live in a time of transition where we have hundreds of millions of people coming out of poverty all over the world that are wanting the standard of living that we enjoy here. And we need to be true to those aspirations and lift people out of poverty in places like Somalia but also find a better way to do it, and we live in that time of contradiction.

01:32:05

So I would say that, you know, they're not responsible for the advertising in the magazine but I get your point. But I would say I think the more realistic we are about the fact that we live in a time of contradiction and that we own it and deal with both things at the same time, the more realistic our solutions are going to be. Alright let's talk about water, aquifers, where are Somalis getting their water?

01:32:26

Sheikh: Yeah you know I just mentioned at the beginning of the presentation that most of the surface water comes from rain but you're totally right, I was the co-author of OECD atlas on water resources in Africa there's more than rainfall water available in Africa, we have years of aquifer, we have deep water in the soil. Believe me those countries which are on the ... on the dry area like the Sahel area between the desert and the savannah the ... the reserve of water outgrows the needs of populations.

01:32:59

But to get that water you need energy and energy is lacking unfortunately and that's why I was talking to his Excellency the Emir about the connection between the three security issues, energy security issue, food security and water security plus the overall security it's a nexus approach. If you don't have energy you can't access that water, if you don't have energy and water you can't have food so there's a connection between them but definitely there is a lot of water but it needs a lot of investment to be ... to be reached.

01:33:30

Audience: (??)

01:33:32

Sheikh: Sorry, once again?

01:33:33

Audience member: Energy is a euphemism for (??)

01:33:35

Sheikh: Yes. The energy conception if you overlay it on the poverty layer which we did on Africa poverty level and energy consumption there's a high co relation.

Sharon: Highly co related.

Sheikh: Yeah.

Sharon: Alright. Fishermen, pastoralists and farmers?

01:33:49

Laura: Yeah. So there ... I think there are a few places as ... where the majority of people living in that country are entirely dependent on the land and ... and natural resources as Somalia. And part of that's because they've been in conflict for the last 25 years and there hasn't been the same type of opportunity for other economies to develop and people are tied to the land in different ways.

01:34:12

So some of those people are nomads who travel with their animals to find pasture and water and survive that way, some people are farmers who require land for their field and their crops to support their families. And some people fishermen and they rely on the marine resources for their livelihoods.

01:34:34

And so one thing we saw kind of across the board was that as these natural become threatened through environmental degradation and climate change people are pushed into really desperate situations that can be extremism, piracy, internal conflicts, it plays out in many different ways but the general theme is that people are tied to the land and as their ability to survive from it becomes threatened they have to make some tough choices.

Sharon: A lot of people moving into cities. Sheikh did you have ...

01:35:08

Sheikh: Just a quick one. I mean the same thing is happening in Senegal in all the lakes as you mentioned but what we observe around lake (??) which is the only fresh water available, as the urbanization is growing and the demand for food in urban is growing and as agro business comes to inter process there's a kind of concentration of population around very you know small reservoir of water and this creates land competition which is beyond the local land grade, attracts investors from outside.

01:35:36

It's the same thing with the fisherman, he was frustrated that the company came to grab their resources and the issues of resource grabbing or land grabbing goes just beyond the food, it's also water grabbing. Every time you export one ton of cereal, it's one ton of cereal plus the water which made that cereal to grow. So that's the kind of issue also we need to look into the connections in that market and the food commodity market.

Sharon: Any last comments?

01:36:04

Jon: Just a short one on the livelihoods comment, we've done a bit of an analysis on that and a common response is livelihoods diversifications, so you know spreading your eggs out, more baskets. What we found especially in the face of severe droughts and other shocks like conflicts is even that's not enough, so to have, you know, a bit of farming and a bit of livestock, I think the livelihood independence is an area where ... where the policy is going to try all farm livelihoods that are not at risk of ... of climate shock.

01:36:34

So maybe ... maybe you know, that's a market based job, (??) through remittances or some extended social networks in the Somali context. And then ... and then just to back push one more time on ... on this sort of narrative around joblessness as a ... as a major driver of support for extremism, I mean again there are certainly links and cases of that but for us and a lot of other researchers we ... we have seen it's a lot more complicated than that.

01:36:59

And I think it's important for ... for policy prescriptions not to think that again a livelihood focused solution is really going to change dynamics around big political conflicts alone.

01:37:08

Sharon: And that's the importance of analysis, if... if you don't know what problem you're solving for, you're going to put the wrong solutions on the table. You get the last word Admiral Gunn.

01:37:17

Admiral Gunn: One other thing that we hadn't talked about was expatriates, there are powerful expatriate communities in the United States from all of these African nations, the Somali one in particular, McAllister College is a center for that, I've carried on a decade long conversation with the Abdi brothers there who are both professors.

01:37:42

It's an extraordinarily rich source of information, influences, trans-oceanic and ... and I think that the views that that community can ... can provide of the conditions there and the conditions here, and the political environment and which changes have to make ... have to be made in the United States can be very important to this conversation.

01:38:07

Sharon: Which is a great way to end, to say again it comes back to the individuals who are living this experience and who have ideas about what's best for them. So thank you very much, let's give the panel a hand, thank you for coming. And please help yourself to copies of Foreign Policy and to post cards of ... of Nicki's excellent work.