The background features a grayscale image of several hands shaking, symbolizing agreement or partnership. Overlaid on this are several large, semi-transparent geometric shapes: a yellow diamond in the top left, a teal diamond in the middle left, a large yellow V-shape pointing downwards in the center, and a large red diamond in the bottom right.

When we're trying to communicate climate information, which messages are most important? Which audiences are key? How do we talk to each other, and not *past* each other?

These are just some of the questions that ASSAR grapples with in this first edition of the ASSAR Spotlight.

the **ASSAR**

SP  **TLIGHT**

on

Communicating Climate Information

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Opportunities

2015 & EARLY 2016

- Postdoctoral fellowships in climate change research *IIHS, India*
- ACDI Masters scholarships for Botswanans and Namibians..... *UCT, South Africa*
- ASSAR research into use officers *Oxfam GB*
- South Asia training course *Bangalore, India*
 - A course for researchers, practitioners and planners on '[Understanding Vulnerability: Concepts, Methods, and Applications for Development Planning](#)'

See our [website](#) for details

Upcoming Events

NOVEMBER & DECEMBER 2015

- East Africa fieldwork (community profiling and data collection) *Kenya & Ethiopia*
- Southern Africa fieldwork (in the Onesi Constituency) *Namibia*
- South Asia fieldwork (in rural, urban and peri-urban areas) *India*
- West Africa fieldwork (graduate student researchers)..... *Mali & Ghana*
- West Africa team meeting *Ghana*

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Why we should just talk to each other

by **Tali Hoffman**

ASSAR Communications Officer

What do you get when you interview a scientist, a practitioner and a policy maker about the challenges of climate science communication? Interestingly enough, you get some very similar thoughts and insights about how to improve on what has been done in the past. I recently interviewed Mark New (African Climate and Development Initiative & ASSAR principal investigator), Bettina Koelle (Red Cross Red Crescent Climate Centre) and Victor Orindi (Kenyan National Drought Management Authority) and here's how they described the way forward for climate science communication – and climate science generally.



Mark New



Bettina Koelle



Victor Orindi

When it comes to climate science, the information that is produced and the information that is needed often do not align with one another. This mismatch leaves the producers of climate information feeling frustrated because their hard work is being ignored, while the users of climate information feel disillusioned because the science they're provided with isn't meeting their needs. If we are to tackle the challenges of climate change more effectively and sustainably then these two groups need to find a way to talk *to* rather than *past* each other. So how do we do this?

Step 1: Open up the lines of communication

Much of this information misalignment can be corrected by scientists and stakeholders simply having frequent, open and jargon-free conversations with each other. Dialogue between these groups gives stakeholders a platform to explain their needs to scientists, which helps scientists to figure out how to focus their work on issues that are directly relevant. At the same time, scientists can provide stakeholders with realistic expectations of which needs climate science can (and can't) meet. These conversations can truly trigger lasting transformation and support optimal adaptation decision-making and therefore great effort should be invested in creating opportunities for active and ongoing dialogue.

Step 2: Move beyond general forecasts and focus on specific issues

Rather than focusing on general forecasts for broad geographical areas, climate science needs to become more specific and explicit to locations, ecosystems, sectors and livelihoods. It is rare that detailed and rigorous analyses are conducted at this higher resolution, and yet climate information focused at these scales will enable people to make easier and more direct links between projected climate impacts and their specific vulnerabilities. In particular, climate science needs to be focused on climate-related thresholds. Most stakeholders have an understanding of the critical thresholds they face. For example, disaster risk managers are likely to know that their floodwater drains will overflow if a specific quantity of rain falls in a short period of time. Similarly, a cattle farmer is likely to know that if the ambient temperature is extremely high for a number of consecutive days, the cows will suffer from heat stress. Climate science that concentrates on if, when and how frequently such thresholds might be reached could better help stakeholders to decide on appropriate courses of adaptation action.

Step 3: Deliver climate information appropriately and effectively

Once the newly produced climate information is ready to be fed back to the stakeholders, attention should be focused on three important topics: format, content and delivery.

Format

To maximise its applicability to different end-users, the same information will need to be reproduced in multiple and diverse formats, with varying levels of detail and focus. However, in all cases, the format of climate messages should be driven by stakeholder demand and tailored to their needs. Questions to be discussed with stakeholders as early as possible should include: are briefing notes the best way of communicating climate information to them? Would videos, radio programmes, theatre or games be more readily understood? In what language(s) should the information be delivered? Would the group benefit from having access to the underlying data?

Content

Regardless of their format, all information should strike a balance between being scientifically valid and easily understood. This is not always an easy feat, but it is imperative that information is neither impossibly complex, nor simplified to the point of being inaccurate. Information should also include details of which forecasts are certain and which are not. People often

shy away from discussing uncertainty; yet it's worth remembering that stakeholders are often familiar with climatic uncertainty (e.g., farmers deal with uncertainty every day), and that any kind of decision-making needs to account for risk and variability.

Delivery

Producing specific and relevant climate information is just one aspect of the communication challenge; the other is making sure that the information reaches people effectively and that it is neither misinterpreted nor misused. Packaging the information in ways that will help people to fully interrogate and internalise it is just as important as the information itself. Conversations between stakeholders and scientists should facilitate this, and it's worthwhile to have an accompanying dialogue process to support the delivery and use of any communication product. Ensure that any trainers or presenters – be they from research groups or boundary organisations – have sufficient understanding of the subject matter to effectively communicate the science and any associated uncertainty.

Step 4: Consider appropriate responses to the science

In addition to giving people the most relevant information in the most appropriate forms, it's also important to be proactively involved in decision-making processes. By considering the climate science and any uncertainties in the context of stakeholder vulnerabilities, scientists can help stakeholders make sense of the information and figure out the most robust responses to it. These conversations can also spur new thinking about what kind of climate information is still needed, and guide scientists in their thinking about what analyses to consider next.

This four-step approach to climate science communication was advocated by all interviewees. That is: to improve climate science communication processes we need to improve communication generally. We need to speak to each other often, honestly, and empathetically, and invest time in developing trust and understanding. In so doing, climate scientists will produce information that is increasingly relevant, useful and in demand, while stakeholders will have access to the specific information they need to make robust adaptation decisions.

To ensure that ASSAR's work is aligned with the needs and realities of those living and working in semi-arid regions, and to increase the chances that findings and recommendations are used in policy and practice, ASSAR builds relationships with a wide spectrum of stakeholders from communities, civil society organisations, research institutions, governments and non-governmental organisations.



south ASIA

FROM A SAFE PLACE TO THE 3rd SPACE

by **Sumetee Pahwa Gajjar**
South Asia Deputy Research Lead
Indian Institute for Human Settlements

Our experience and interactions with climate scientists in India suggests that when new scientific analyses on past climate trends are produced or climate projections for a region or sub-region are generated, such information is shared in one of two ways:

Firstly, via journal articles. These are generally read by audiences who are often from the same domain, and ensure that a body of knowledge is consistently strengthened, its rigor tested and maintained. They also help new entrants into the discipline to situate their research within ongoing work. Sometimes academic papers form the basis for presentations at scientific conferences, attended by domain experts.

Secondly, via climate knowledge platforms. As participants at a recent winter school on climate science at UCT, we were exposed to a range of such online portals and it was apparent that most are not easy to navigate through, due to shortcomings in interface design, which is mostly knowledge supply driven.

I call these two forums for knowledge sharing “safe places”; the reason being that they do not require climate scientists to tread beyond their technical language, built over decades of disciplinary enquiry, in order to communicate with non-experts. Instead, scientists continue to use words that communicate little to the decision-makers who need to factor scientific knowledge into their strategies and long-term plans.

Sometimes climate research is commissioned by governments (as is the case with the writing of the IPCC Assessment Reports and the generation of National Communications to the UNFCCC), but these require significant re-working and summarising to become digestible to a non-scientific readership. However, the issue remains that most climate

scientists are not trained to communicate their work to a broader range of stakeholders. This inability to move out of our “safe places”, whether as scientists, economists, or researchers, means that our knowledge remains cocooned within the walls of our core discipline. Responding effectively to climate change impacts over the medium- and long-term requires climate science information to be communicated in ways which increase the knowledge base of policy makers and community members, who form part of a broad spectrum of societal stakeholders impacted by climate change.

The place where “experts” and “non-experts”, scientists and non-scientists, gurus and lay-people come together to understand the concerns and contributions of each individual is called the 3rd Space.

It is a place where technical “jargon” is not only abandoned, but where the power that is conventionally attributed to technical knowledge, is denied. The 3rd Space is neither safe nor unsafe. It is where power dynamics are disrupted and scientists might consider the societal value of calculations, model-building and simulations. It is a soft landing spot for those who choose to descend from their scientific ivory towers. The 3rd Space has the potential to be a creative space, where new ideas can be tested with those who may become co-applicators, where old ideas can be revisited with fresh insights and where a new language can be created that allows research to flow into practice. We hope to create such 3rd Spaces in the regional research phase of the ASSAR programme in India.

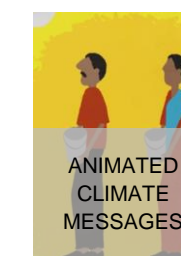
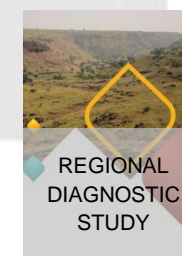
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RECENT EVENTS

◆ Stakeholder events

- ~ WOTR held workshops in [Marathwada region of Maharashtra](#) with stakeholders from local authorities, NGOs, farmers and academics to discuss water issues and frame stakeholder perspectives (March and July 2015)
- ~ IIHS ran a master class called "[Are Southern Cities adapting to climate change?](#)" (August 2015)
- ~ ATREE held a community stakeholder engagement event in the Moyar-Bhavani site with representatives of villages and hamlets from the Moyar zone of the sub region, representing the Forest Agriculture Socio-ecological System of the sub region (September 2015)

◆ Capacity building

- ~ ASSAR team Research-into-Use training in Bangalore, India (August 2015)
- ~ Team members attended the Climate Training School at the University of Cape Town, South Africa (August 2015)



southern AFRICA

CONSIDERING CULTURAL BELIEFS IN CLIMATE SCIENCE

by **Dian Spear**

Southern Africa Research Lead

African Climate & Development Initiative

When it comes to the communication of climate information Southern Africa experiences the same challenges as many other developing countries: too little, too late, too general, not far-reaching enough and not catered to local language needs. We expected to find evidence of these challenges during our work in Bobirwa sub-district in Botswana. However, it was surprising to see the extent to which cultural beliefs added another layer of complexity.

In January 2015 ASSAR researchers from the Universities of Botswana and Cape Town met with chiefs in Bobonong to discuss climate related issues, and to better understand local perceptions of climate change and its causes.

The chiefs were well aware that less rain was falling, rains were arriving at different times and droughts were lasting longer. In a region where livelihoods depend on agriculture, these changes to the hydrological system pose significant threats. Interestingly, the chiefs interpreted these climate shifts in the context of traditional and Christian belief systems.

For some of the chiefs, climate change was considered as a punishment by the ancestors for the shift to Christianity and the abandonment of traditional beliefs and rituals.

“We are totally lost. We have abandoned our culture. From early childhood we had water all over from rivers. Our gods are not happy with us that we do not observe rituals. In the past people went to the hills to ask for rain from the ancestors and after going to the hills messengers came back to say that the ancestors would grant rain if the people do certain things like observe days of rest. Nowadays no one asks for rain from the ancestors.”

Other chiefs cited dual religious practices – traditional ancestral worship parallel with Christianity – as being the cause of God’s punishment.

“I have seen from many years ago the climate is changing. When I was growing up there wasn’t Christianity and we used to pray to the ancestors and lots of rain came. Because of Christianity we no longer do that. The bible says following ancestors is a waste of time. Now there is confusion and it no longer rains. I believe God is behind the changes.”

Yet others blamed the arrogance and cleverness of humans.

“As human beings we are too clever...flying to the moon. God has punished us for cleverness. The rivers are no longer full like in the past.”

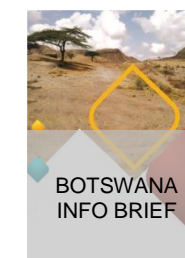
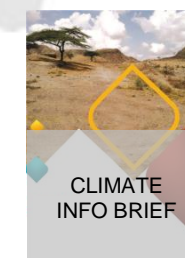
It will require some innovation to be able to communicate climate science to communities whose beliefs of weather and what governs it have such strong cultural origins. However, simply having these conversations and hearing these perspectives gives us a much richer understanding of the cultural contexts in which we are working. In time, we hope these dialogue processes will help us to develop trusting and supportive relationships that we can use as the backbone of our work.

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RECENT EVENTS

Stakeholder events

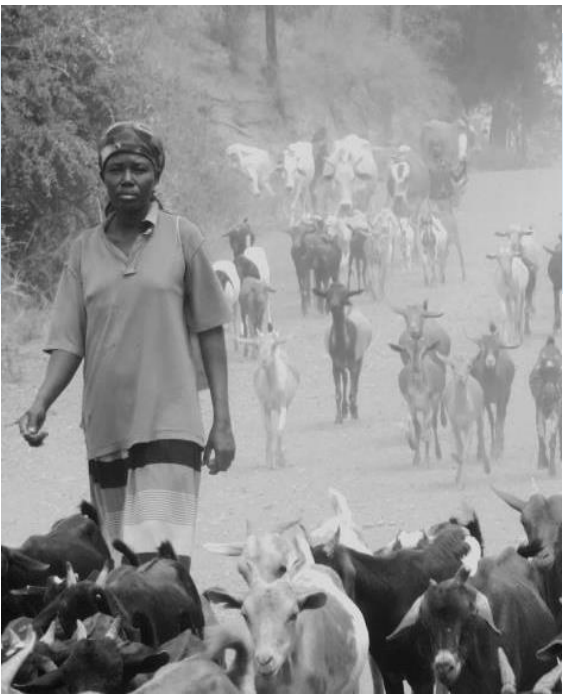
- ~ Stakeholder engagement event in Gaborone, Botswana (May 2015)
- ~ Stakeholder influence mapping workshop in Windhoek, Namibia (July 2015)
- ~ Vulnerability and Risk Assessment in Bobonong, Botswana (November 2015)

Field work

- ~ Pilot household survey on vulnerability and adaptation in the Onesie constituency, Namibia (July 2015)
- ~ Key informant interviews in Bobonong, Botswana (October 2015)

Capacity building

- ~ ASSAR team Research-into-Use training in Windhoek, Namibia (July 2015)
- ~ Team members attended the Climate Training School at the University of Cape Town, South Africa (August 2015)



east AFRICA

IF WE DON'T TRUST IT, WE DON'T BELIEVE IT

by **Jennifer Leavy**
East Africa Deputy Research Lead
University of East Anglia

Successful adaptation to climate change by households and communities rests on making informed decisions based on climate information. Yet, in our work to date in East Africa, we've realised that people tend not to trust such climate information. Here we detail the factors that we believe have caused this mistrust, and suggest ways to restore confidence in the science.

The first problem we found is the generality of typical climate forecasts. When information is generalised over too large an area, people at the hyperlocal level perceive it to be almost meaningless. People also believe that climate information often details climate patterns that are contradictory to what actually occurs. When this happens, people tend to disregard forecast information completely.

To remedy this, multiple sources of climate evidence need to be collated and contextualised: not just to the local level – and in accordance with the local norms governing access to and use of information – but also in terms of what the information means in relation to key areas of potential impact such as agriculture, water, land and health.

A second challenge we saw is that people at the community level tend to have little or no access to climate information. Information they do receive is typically presented with too much scientific detail and not enough practical advice, and often in the form of probabilistic forecasts which end-users have difficulty interpreting. This problem can be compounded by differences in language systems and interpretations of the meaning of the information – including differences in the perceptions of what are 'normal' variations in climate. To counter this issue it's important to focus on how to translate forecasts and, in particular, how to communicate "information with risk and uncertainty".

Meteorological forecasts need to be broken down and interpreted in ways that help local people to understand and use them in their livelihood planning. This could entail a meteorologist sitting with community members and working through each forecast with them. Alternatively, local communities could be trained to interpret and use climate forecasting information directly.

In East Africa, initiatives such as the [Arid Lands Information Network centres](#) (in 7 counties in Kenya, serving more than 8000 communities with internet access, training and ICT skills) can be a key intervention that enables access. The [Ethiopian Institute of Agricultural Research](#) has also been working to downscale forecasts to local areas of Ethiopia and give agronomic meaning to the forecasts.

Finally, the top-down nature of most climate science information and communication programmes reinforces socio-cultural norms and beliefs about forecasting and creates further resistance to climate science. Rather than unilaterally implementing climate science communication programmes and activities, policy makers need to work with focal people, such as local champions and representatives of local communities (e.g. civil society organisations), to ensure that all programmes and activities are congruent with community needs.

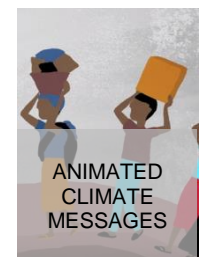
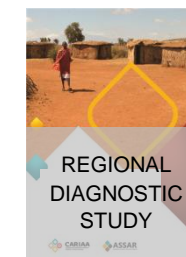
Achieving the things we describe in this article will require climate science communication to have dedicated resources and activities that are ongoing and continuous. However, we believe that these actions will build the public's trust in climate information, and lead to more efficient and effective adaptation to climate change in East Africa.

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RECENT EVENTS

Field work

- ~ Case study profiling in the Middle Awash Basin primary study area, eastern Ethiopia, including key informant interviews at *woreda* and *kebele* levels and community mapping/group interviews in six local research sites (October 2015)
- ~ Case study profiling in the Isiolo/Meru primary study area, northern Kenya, including key informant interviews at county and sub-county levels and community mapping/group interviews in six local research sites (October 2015)

Capacity building

- ~ Team members attended the Climate Training School at the University of Cape Town, South Africa (August 2015)



west AFRICA

ADDRESSING GAPS IN CLIMATE COMMUNICATION

by **Adelina Mensah**
West Africa Researcher
University of Ghana

In the past in West Africa, climate science was primarily communicated to climate practitioners - people who were not only interested in the science, but who were already sufficiently well-versed in the subject to make it relatively easy to communicate fairly complex content. For this rather specialist audience, communication activities tended to be academic in nature, most often delivered in the form of PowerPoint presentations at conferences, meetings or workshops.

However, more recently - and in response to the international agenda for countries to more effectively mitigate and adapt to climate change - climate science communication has needed to address a wider range of stakeholders at all levels of governance - from farmers and fishermen to policy- and decision-makers. This has meant that climate communicators have had to move out of their comfort zones, and think of clear and effective ways to explain climate science to non-specialists.

Climate communicators have had to move out of their comfort zones, and think of clear and effective ways to explain climate science to non-specialists.

A major stumbling block in this process is that the people tasked with climate communication are typically climate specialists whose scientific training far exceeds their communications training. This means that they have limited knowledge of the methods, tools or approaches that can elicit enthusiastic interest from the general public. So, in many

instances, attempts to communicate salient issues have continued to follow the 'same old, same old' traditions of workshops, presentations, policy briefs or newsletters. Thus, the information continues to be most appropriate for generally literate audiences, while key messages still fail to reach those who are considered to be the most vulnerable. To make matters worse, communication activities and events are seldom coordinated and stakeholders frequently become fatigued and even nonchalant about the issues.

To try to improve this situation some climate communicators are now teaming up with local facilitators who can provide increased access to communities and who can help to overcome linguistic and cultural barriers. Many people are also starting to use radio stations more widely; these are the main sources of information for local communities in West Africa and they offer useful platforms for communicating messages and generating interest in climate science issues.

There still remains much to be achieved though, as creating awareness is a gradual process. We need to learn more about which communication methods to use and when to use them. We also need to better understand the diverse interests of different stakeholder groups. Only then will climate science become less of an intellectual exercise and a more common agenda for all.

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International START Secretariat, Washington, DC USA

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RECENT EVENTS

◆ Stakeholder events

- ~ District-level Regional Diagnostic Study dialogue in [Koutiala, Mali](#) and in [Lawra and Nandom Districts, Ghana](#) (July 2015)
- ~ [National-level Regional Diagnostic Study dialogue](#) in Accra, Ghana (July 2015) and in Bamako, Mali (September 2015)

◆ Field work

- ~ Graduate student researchers visit Lawra and Nandom Districts, Ghana (September 2015)

◆ Capacity building

- ~ Team members attended the Climate Training School at the University of Cape Town, South Africa (August 2015)
- ~ ASSAR team [Research-into-Use and Transformative Scenario Planning training](#) in Accra, Ghana (October 2015)

ASSAR's Climate Training School

HOW COMPLEX IS IT TO CONSIDER CLIMATE INFORMATION IN DECISION MAKING?

Discussions, games and learning, with Table Mountain as a spectacular backdrop

By **Lucia Scodanibbio**
ASSAR Project Coordinator

It was an intensive eight days of armchair travelling: from remote communities in Kenya where we reflected on women's challenges as they grapple with the impacts of climate change, to the city of Bangalore where ways are being sought to provide 10 million urban inhabitants with a constant supply of water. In Ghana and Mali we heard of farmers suffering increasingly from the delays in the onset of the rains and who – hard-pressed to adapt to this new context – are trialling different types of crop and water-storage systems. In northern Namibia we saw how vulnerable communities in the Onesi constituency need to sell livestock and receive drought relief from the government at times when the rains fail.



These were just some of the stories shared by the 23 participants who converged at the University of Cape Town, in South Africa, in late September 2015 to attend ASSAR's training course on understanding climate information and adaptation in the context of semi-arid regions. Considering the mix of people attending the course – ASSAR researchers and stakeholders hailing from government institutions, NGOs and research institutes from 10 different countries – it is unsurprising that different and rich perspectives, experiences and knowledge abounded. Yet, the challenges, impacts and risks facing people across the African and Indian semi-arid regions are similar, and include rising temperatures and more extreme, unpredictable climate events. These challenges call for structured adaptation approaches that can help local populations increase their resilience and preparedness.

Improved decision making

During the course, the participants learned that in order to make decisions that will help people manage and adapt to climate risks in contexts where multiple biophysical, socio-economic and governance factors are at play, it helps to follow a series of discrete activities that can assist in addressing the following questions:

- ❖ *Vulnerability and risk assessments:* What makes us vulnerable? How serious are the risks we are exposed to and when will they occur? Are there hidden opportunities?
- ❖ *Understanding observed and future climate projections:* Will it be hotter or colder, wetter or drier? Will there be more extreme events? Will these changes further exacerbate the risks and vulnerabilities identified above?
- ❖ *Developing and appraising adaptation options:* What responses could be developed? Which are the most urgent, given the medium and high risks identified above? Are the proposed options robust in the face of uncertainty? Are they politically and socially acceptable and/or financially feasible?

Simulations and explorations

During the course of the week, participants familiarised themselves with a number of available climate portals – databases that provide information on past climate trends and future climate projections. They became aware of the critical importance of correctly querying these portals and accurately

interpreting their outputs in order to avoid serious, yet common, mistakes in their application. As they learned about global and regional climate models (which help to understand climate systems and how these might change in the future according to the scale of anthropogenic activities) they also realised the inevitable shortcomings and uncertainties associated with simplifying real-world phenomena to discrete variables that computer-simulated models can grapple with.



Yet it was not all PowerPoints and computer simulations. The participants also had a chance to [build towers with \(raw\) spaghetti and marshmallows](#) to learn about creativity and collaboration. They pretended they were farmers, agricultural extension officers and municipal planners forced to make investment decisions in the face of [uncertain seasonal forecasts](#). They also worked as regional teams to ensure that the specially-convened "Parliament of African countries" would agree to their proposed adaptation plan for a critical regional issue – one that was discussed and revisited countless times during the course of the week.

"Site-specific historical climate trends, as well as future climate projections, will help to track how climate has changed in the past and show a picture of how it is likely to change in future. This will help communities to fully understand the implications for adaptation and also help governments to understand the importance of supporting climate adaptation initiatives", reflected a participant at the end of the course, as he thought about its utility.

As ASSAR colleagues and regional stakeholders left Cape Town, we hoped that the strengthened relationships resulting from the course, and an increased understanding of what ASSAR aims to achieve in the next few years, will lead to more transdisciplinary collaboration, and heightened knowledge on climate information and adaptation.

Before the climate training course I was unsure how to effectively use surveys to assess the current and future patterns of vulnerabilities, responses and adaptation strategies of smallholder farmers in semi-arid Ghana. However, I now understand far better how to carry out surveys on vulnerability and wellbeing, and how to assess climate-change adaptation using the Analytical Hierarchy Process. I am also better connected to specialists in the vulnerability field who can help me to further streamline my methods.

I was especially interested to learn how to appraise climate change adaptation options, as this is something I can use in my research. In particular, I hope to help build the capacity of smallholder farmers to choose the most suitable adaptation and coping strategies. I also think that the lessons on the frameworks for adaptation decision-making will help me as they taught me that, to best manage climate risk, we need to carefully consider information from a wide range of sources and that has different amounts of uncertainty.

Ishmael Lente
University of Ghana

The ASSAR climate information training course was a very interesting one, during which we not only acquired new skills, but also developed a deeper understanding of the climatic and socio-ecological risks facing people in ASSAR's four regions. It was very useful to have in-depth training on climate modelling and downscaling, climate information portals, adaptation decision making, climate change messaging and the use of the wellbeing approach in vulnerability assessments.

The knowledge on how to use climate portals will help me to retrieve climate information from these websites for my climate change impact assessment research (modeling). I intend to include wellbeing framework and vulnerability in my future research.

Finally, the course was fun! The interactive nature of the training was excellent and I enjoyed every bit of it.

Benedicta Fosu-Mensah
University of Ghana

I would like to compliment ASSAR, the Climate System Analysis Group (CSAG) and the African Climate and Development Initiative (ACDI) for enhancing my understanding of climate information. It was excellent to learn about greenhouse gases, climate change uncertainty, climate communication strategies and adaptation strategies. My improved understanding of these issues has already helped me to think of more relevant ways of addressing and adapting to Botswana's climate risks at district and regional levels.

I appreciated the way the course included learning-by-doing activities. Games and group exercises were used in a way that helped us to experience the reality of each topic.

I would like to extend my gratitude to the Ministry of Agriculture in Botswana – particularly the Department of Agricultural Research – for giving me the opportunity to attend this course and to learn about climate information. I believe that the knowledge I've acquired can make a difference to Botswana's food security at both the household and national levels.

Lambani Bosekeng
Botswanan Department of Agricultural Research



ABOUT ASSAR

WHY WE FOCUS ON SEMI-ARID REGIONS

As the global impacts of climate change become more clearly understood, so too does the need for people to effectively respond and adapt to these changes. Home to hundreds of millions of people, the semi-arid regions of Africa and Asia are particularly vulnerable to climate-related impacts and risks. These climate-change hot-spots are highly dynamic systems that already experience harsh climates, adverse environmental change, and a relative paucity of natural resources. People here may be further marginalised by high levels of poverty and rapidly changing socio-economic, governance and development contexts. Although many people in these regions already display remarkable resilience, these multiple and often interlocking pressures are expected to amplify in the coming decades. Therefore, it is essential to understand how to empower people, local organisations and governments to adapt to climate change in a way that minimises vulnerability and promotes long-term resilience.



To date, most adaptation efforts have focused on reactive, short-term and site-specific solutions to climate-related vulnerabilities. Although important, these responses often fail to address the root causes of vulnerability, nor shed light on how to proactively spur larger-scale and longer-term adaptation that has positive effects on socio-economic development. Using both research and practice to address this information shortfall, the Adaptation at Scale in Semi-Arid Regions (ASSAR) seeks to produce future-focused and societally-relevant knowledge of potential pathways to wellbeing through adaptation.

Our research framework

ASSAR's overarching research objective is to use insights from multiple-scale, interdisciplinary work to improve the understanding of the barriers, enablers and limits to effective, sustained and widespread adaptation out to the 2030s. Working in a coordinated manner across seven countries in India, East

Africa, West Africa and Southern Africa, ASSAR's research is case study based and strives to integrate climatic, environmental, social and economic change. The dynamics of gender roles and relations form a particularly strong theme throughout our approach.

Each of ASSAR's teams conducts regionally-relevant research focused on specific socio-ecological risks/dynamics that relate centrally to livelihood transitions, and access, use and management of land and water resources in water-stressed environments. Focal research themes in each region are: agro-intensification in West Africa; land and water access in East and Southern Africa; and land use, land cover and livelihood changes in India.

Over its five-year lifespan (2014-2018), the cross-regional comparison and integration of research findings will enable ASSAR to develop a unique and systemic understanding of the processes and factors that impede adaptation and cause vulnerability to persist.

Putting our work in practice

To ensure that project case studies are aligned with the needs and realities of those living and working in semi-arid regions, and to increase the chances that findings and recommendations are taken up, ASSAR builds relationships with a wide spectrum of stakeholders from communities, civil society organisations, research institutions, governments and non-governmental organisations.

By guiding stakeholders through participatory scenario planning processes ASSAR aims to build a common understanding of current adaptation needs and past adaptation failings, while promoting the co-production of adaptation responses that can yield appropriate, tangible and lasting benefits. By using stakeholder mapping and analysis to better understand the power dynamics of different stakeholder groups, by working with and alongside boundary organisations and the private sector, and by engaging in effective communication, capacity building and advocacy campaigns, ASSAR seeks to inform and promote sustainable development pathways that have the best prospect for enhancing the wellbeing of the most vulnerable and/or marginalised in the coming decades.



Through these activities, ASSAR will better integrate the domains of adaptation research, policy and practice. By building the adaptive capacity of primary stakeholders, policy and decision makers, practitioners, boundary organisations, and academic researchers, this integration could bring about previously inconceivable strategies for change and transformation. In time these efforts could also contribute to a change in the attitudes and behaviours of key stakeholders, prompt easier and better access to resources by vulnerable groups, and enhance the power and agency of vulnerable groups to lessen or remove adaptation barriers, and exploit adaptation enablers.

Who we are

The international and interdisciplinary ASSAR team comprises a mix of research and practitioner organisations, and includes groups with global reach as well as those deeply embedded in their communities.



ASSAR is one of four hot-spot research projects in the Collaborative Adaptation Research Initiative in Africa and Asia (CARIIA) programme, funded by Canada's International Development Research Centre (IDRC) and the United Kingdom's Department for International Development (DFID).

