



# ASSAR

ADAPTATION AT SCALE  
IN SEMI-ARID REGIONS  
2014–2018

PARTICIPATORY PROCESSES  
BUILD ADAPTIVE CAPACITY  
AND AGENCY AND CAN HELP  
TRANSFORM SYSTEMS

*AN ASSAR CROSS-REGIONAL INSIGHT*



Transformation in climate change adaptation is the opposite of today's business as usual. It requires a reframing of the climate challenge to allow a shift from the existing largely technocratic and Northern knowledge base, to a fairer configuration of power relations that recognises the critical role of non-technocratic knowledge. Indeed, initiatives that can lead to transformation in climate change adaptation need to emphasise the reorientation of social norms and relations, as well as the reorganisation of climate governance structures. Inclusive, participatory processes that bring together diverse stakeholders – both in positions of power and dispossession – can help to integrate marginal voices into the mainstream, thereby shifting the adaptation narrative and research methods to new spaces of grounded solutions. In so doing, these processes can help build people's agency and their adaptive and transformative capacities.

## ASSAR'S FOCUS ON PARTICIPATORY PROCESSES

An overarching theme throughout ASSAR was the contested nature of what it means to be inclusive, participatory and transformative in advocating for climate change adaptation. As there are conflicting views on transformation and its normative nature, our research was mostly exploratory. We started by assessing the different uses and interpretations of transformation in climate change and development circles. We then implemented and researched different types of participatory processes that aimed to understand the potential for adaptation pathways and for transformation as a result of stakeholder engagement. In response to the shortcomings of technocratic logic which ignores socio-political contexts at different scales, we particularly worked to understand the benefits of challenging unequal power relations

through representative stakeholder participation, and its contribution to transformation. Trying to stay true to the spirit of transformation, we aimed to challenge our own values and be open to shifting the way we understood the climate change challenge, as opposed to imposing our own world view on others.

As ASSAR ended, it became increasingly apparent that any work on climate change needs to be framed with the need for transformation at its core. The scale and speed of change needed to avoid an irreversible climatic overshoot (going beyond 2°C of global warming) requires systemic and behavioural changes that could only reasonably be described as major departures from today's mindsets and visions of a desirable future, namely, transformations. Universal principles of social and environmental justice, human rights and the Sustainable Development Goals (SDGs) could serve as pillars of reference against which to consider the implication of possible transformations.



## KEY INSIGHTS

### *SOCIAL AND ENVIRONMENTAL JUSTICE IN CLIMATE CHANGE ADAPTATION REQUIRES DEEP SHIFTS IN POWER STRUCTURES AND SOCIAL NORMS*

The existing power imbalances in climate governance structures at local to global levels demonstrate that transforming power relations is an important element of attaining just and effective adaptation. Working with stakeholders – those in positions of power and in states of dispossession – can help rebalance these social inequalities.

When participatory assessments recognise the social roots of vulnerability, they become critical in helping individuals and institutions rethink their understanding of climate change impacts and how to respond to these. As such, these tools can help shift narratives and power dynamics, allow marginal voices to be heard, and enable the co-creation of solutions. They can contribute to moving the adaptation conversation beyond incremental and instrumentalist approaches, towards one that inspires transformational thinking and action.

Furthermore, the process of deciding who contributes to setting the climate change agenda, and who doesn't, is loaded with political interests. In the present climate governance arrangement, Northern academic and

political institutions exert disproportionate influence over the sector, and a vast wealth of knowledge is excluded from high-level climate-change related decision-making processes. Transformation in climate governance should be founded on the amalgamation of various sources of knowledge that support otherwise-marginalised groups to become increasingly influential in defining their own development pathways.

Using a typological framework for categorising forms of change (Table 1) can help researchers and practitioners relate different interpretations of transformation to practice. These categorisations link to the broader conceptions and critiques of transformation, and can enable those seeking to assess or plan adaptation actions/theories to better analyse what types of action are potentially constitutive of transformation. So-called transformative adaptation initiatives, namely those that aim to bring about change beyond the initiative itself (e.g., by reducing climate risk while empowering marginalised women), can be particularly helpful in shifting the sector's paradigms.

## Recommendations

- Effectiveness in adaptation efforts can be increased by demonstrating to governments how genuine participation in decision-making processes can generate constructive learning environments. These participatory processes also enable governments, and others with mandates to address climate change challenges, to benefit from advice generated by a combination of robust and grounded researcher and practitioner knowledge, alongside the voices of marginalised groups.

- Despite what the term might suggest, transformations will rarely happen overnight. Rather, they are lengthy processes with kinks in their trajectories. Enhancing the idea of justice in climate change adaptation initiatives (e.g., through inclusion, and by recognising wellbeing as an element of effective adaptation) will often require radical departures from predominant social norms and power arrangements. However, this concerted effort can help to build a new vision of social, environmental and climate justice.
- Working with decision makers and other stakeholders from local and sub-national levels in the Global South can change our understanding of climate change impacts and required responses. It can also provide key evidence to influence multilateral processes that in turn could inform the global rules on finance that would make funding for local-level work more readily available.
- Influential institutions around the world should lead by example in changing their own practices to address the root causes of climate change and to minimise inequalities by, for example, increasing the number of women in decision-making positions, or shifting toward more participatory and representative research.

**NEW PARTNERSHIPS BETWEEN RESEARCH INSTITUTIONS AND PRACTITIONERS CAN POSITIVELY IMPACT POLICIES AND PRACTICE**

Despite increasing recognition in the last decades of the root causes of climate change, the limited progress that has been achieved on the problem calls for new partnerships and new ways of acting. Collaborations between research and practitioner institutions that are based on equality and trust can deliver impactful results in climate action, and capture much interest from governments.

A key example of the benefits delivered by a partnership between researchers and practitioners in ASSAR was the Government of Botswana's commissioning the University of Cape Town and Oxfam to develop a framework for the design of the national drought management strategy. In this framework we made a series of recommendations, and shared lessons about what we believe should be the plan's principles, and development and implementation goals.

**Table 1:** Typological distinctions and their implications: interrogating transformation (from [Few et al. 2017](#)).

What type of change process is occurring or envisioned?	Mechanisms of change	<b>Innovation</b> (completely novel activity or application of an activity in a new location) <b>Expansion</b> (application of an existing activity at a much greater scale or much greater intensity) <b>Reorganisation</b> (major change in the governance structures that frame adaptation) <b>Reorientation</b> (reconfiguration of social values and social relations in adaptation)
How does it relate to the drivers of risk?	Target outcomes in relation to climate risk	<b>Instrumental change</b> (focus on addressing climate risk as an environmental problem) <b>Progressive change</b> (targets reduction of differential social vulnerability to climate risks) <b>Radical change</b> (tackles underlying causes of vulnerability to climate risks)
Is the change limited to climate change adaptation?	The object of transformation	<b>Transformational</b> adaptation (transformation of adaptation practice) <b>Transformative</b> adaptation (transformation of broader aspects of development <i>through</i> adaptation activity)

We argued that a process of inclusivity and participation is needed to shift from a disaster-response mode to a risk-management one, and the importance of understanding and addressing the role of gender, and gender dynamics, in dealing with drought.

Another important collaboration in ASSAR was the one between ICRISAT and Wetlands International in Mali, used to build the capacity of local stakeholders on soil and water management. This partnership allowed a research project like ASSAR to directly result in the implementation of pilot projects through collaboration with an on-the-ground institution.

ASSAR's work makes a convincing argument about the need for academic institutions, particularly those working on climate and development, to design their research processes with meaningful involvement of the people affected. Jointly framing research questions, and identifying problems and responses to them will ensure that research is grounded and relevant. It also increases the possibility that decision makers will be interested in, and make use of, the findings.

By the same token, the ASSAR experience has demonstrated to practitioner institutions that robust processes in designing programmes and interventions are beneficial in that they base action on informed choices.

## Recommendations

- Collaborations between practitioners and researchers can result in improvements in climate-related work, especially when it comes to efforts to reduce the negative impacts of climate change on populations at risk.
- Being propositional to governmental decision makers, the private sector, and donors regarding the value added by partnerships can help them to identify the benefits of working with researchers and practitioners.
- Regardless of the form of partnership, the importance of building trust through hard work, and long-term commitment, should not be underestimated.
- We all need to stretch our boundaries by pushing ourselves and our institutions to be increasingly solutions-oriented. Showing that climate change is a problem is no longer enough. Research institutions need to enter the solutions space head on, which will include having to take normative positions.

- Let's show our humanity in our work on climate change. Our 'house' – our planet – is in real, urgent, trouble. Engaging with the problem as people who care, who are worried, and who have a direct stake in the question, is a strength, not a weakness.

**INCLUSIVE, PARTICIPATORY PROCESSES GENERATE VALUABLE NEW KNOWLEDGE THAT IS CRITICAL FOR ADAPTATION**

Rather than state of the art innovation, more often than not what is needed in adaptation efforts is good, honest collaboration among a wide group of stakeholders. These collaborations flourish when the opportunity to co-create ideas and challenge our assumptions are genuinely offered. These processes can help shift the adaptation narrative and research methods to new spaces of grounded solutions.

In ASSAR we experimented with inclusive, participatory processes to ensure that our research was representative and relevant to the most at-risk groups in climate hotspots. These included Participatory Scenario Analysis (PSA), Vulnerability and Risk Assessments (VRA), and the Theatre of the Oppressed. Our PSA work helped us push stakeholders to reimagine their roles in the challenge at hand, and explore how they themselves, and their institutions, could contribute to addressing the problem. The importance of strong relationships and of building trust among stakeholders emerged as crucial. A similar journey took place with the VRA, which also contributed to building agency of the most marginalised members of society, and increased accountability of decision makers.

These processes contributed to ASSAR's aim to generate impact on practice and policy by doing research *with* stakeholders, as opposed to research *for*, or *on*, them. This approach can be seen as novel or even transformational, particularly because it seeks to steer the climate change research agenda from a strongly climate-science-heavy perspective to one where the challenge is centred on human impact and wellbeing.

Meanwhile, our efforts through participatory theatre in several conferences of global relevance helped us demonstrate to wide audiences of researchers and decision makers the importance of placing humanity (ours and others') at the centre of climate change understanding and action.

## Recommendations

- Inclusive, participatory processes with stakeholders can deliver valuable new insights (including to research questions). These consultations should recognise and welcome the difficulty of working with actors who hold very different levels of power, and who may have complicated relationships among themselves. Conversations facilitated in the local language by teams who have an existing relationship with the people affected by climate change are likely to yield more successful outcomes.
- Working with ‘unusual suspects’ within key stakeholder groups could help go beyond the political headlines that formal members are likely to share. For example, when working with members of a community, it is important for the sake of diversity and representation to talk not just with the chief and the more outspoken people, but also with those less used to interacting with researchers and NGOs.
- Encouraging all stakeholders to participate in the analysis of the problems and not just in their identification, is both beneficial to the research, and an important way to recognise the value of different sources of knowledge and lived experiences.
- Art and experiential learning activities offer a great way to push people to engage beyond their specific roles and paradigms (e.g., indigenous person, climate scientist), thus opening new opportunities for knowledge generation, and for seeing new perspectives on the question at hand.



## A PROCESS THAT AIMS TO BE TRANSFORMATIVE REQUIRES A HIGH LEVEL OF COMMITMENT

It can be challenging to secure the commitment of influential and diverse stakeholders to participatory processes that aim to be transformative. However, making compromises at this stage can limit the potential of collaborations to challenge the status quo. A word of caution, though: the repercussions of transformations need to be carefully considered, as they are likely to produce winners and losers.

We experimented with adapting a process for ASSAR called Transformative Scenario Planning (TSP). Developed by Reos Partners, TSP processes carefully bring together stakeholders with diverse and conflicting perspectives. Our TSP workshops resulted in new opportunities to network, question convention, and incorporate disruptive and surprising elements in long-term planning on particular issues that are affected by climate change. Beyond our workshops, any continued participation by stakeholders in adaptation-related activities was largely coordinated by ASSAR, which resulted in practical changes for some.

The momentum created by our TSP workshops varied greatly from one ASSAR region to another according to the timing of workshops and the participation of key stakeholders. Teams who held workshops early on in ASSAR had more follow-up initiatives compared to processes undertaken in the final year of the project, and were consequently able to capitalise on relationships built. Although issues were urgent, uneven representation of stakeholders from across the social system limited the transformative capacity of the process. Overall, the use of TSP in ASSAR was a valuable first step towards building relationships in the field of climate change adaptation. However, the process was less about rigorous scenarios and more about the process of building stories as a way to make discussions meaningful across social divides.

## Recommendations

1. TSP is recommended for tackling climate change adaptation but only if specific conditions are met: project teams need to be committed to the long-term (over several years) process of change beyond the scenario building workshops; project teams need to be convinced that the TSP process is an appropriate option, before persuading stakeholders of its utility; and teams need to have the time, energy, and convening power to get the right stakeholders in the room.

2. The TSP process needs to be set in motion at the outset of a project. Allow plenty of time to decide who should be in the room, and meet with stakeholders in person several times before holding workshops. Anticipate '[workshop fatigue](#)' and use it as an opportunity to talk about power relations prior to workshops.
3. The scenarios in the TSP process are recommended as a way to get people talking about long-term collective futures rather than short-term individual interests. In contexts where the scenarios need to be more than a tool for thinking, consider other forms of scenario processes.
4. Do not limit yourself to one type of participatory process. Tailor processes to the context in which you are working and the types of people you want to target. TSP should not be confused with community engagement, and may be less easy to adapt to contexts where the language of TSP does not translate well. Think about how a targeted approach to selecting stakeholders may entrench existing power relations before proceeding with the process. Multi-pronged [capacity-building activities, site visits, conferences and radio](#) may all be equally viable options towards the co-creation of adaptation pathways.

## AUTHORS

**Daniel Morchain\*** ([danielmorchain@gmail.com](mailto:danielmorchain@gmail.com)), Oxfam GB  
**Teresa Perez** ([tpz031@googlemail.com](mailto:tpz031@googlemail.com)), University of Cape Town  
**Tali Hoffman** ([tali.s.hoffman@gmail.com](mailto:tali.s.hoffman@gmail.com)), University of Cape Town  
**Lucia Scodanibbio** ([scolucia@gmail.com](mailto:scolucia@gmail.com)), University of Cape Town

## ADDITIONAL RESOURCES

Alare, R. S., Adiku, P., Ansah, P., Mensah, A., Lawson, E. T., Thompson-Hall, M. and Hoffman, T. 2017. *Using Transformative Scenario Planning to think critically about the future of agriculture and food security in the Upper West region of Ghana*. [Information brief]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2016. *Atelier de planification de Scenarios Transformateurs (TSP) à Koutiala (Mali, Juin 2016)*. [Video]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2016. *Transformative Scenario Planning in ASSAR*. [Video]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2016. *Vulnerability and Risk Assessment workshop in northern Namibia*. [Video]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2017. *Experiential learning: Farm Juggle*. [Video] Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2017. *Experiential learning: Paying for Predictions*. [Video] Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR 2017. *Experiential learning: Seasonal Forecast*. [Video] Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2017. *Experiential learning to understand climate change*. [Video] Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2017. *Experiential learning: Vulnerability Walk*. [Video]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2017. *Preparing for Transformative Scenario Planning (TSP) in India*. [Video]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2017. *The Vulnerability & Risk Assessment approach*. [Poster]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2017. *Transformative Scenario Planning in Ghana - Part 1*. [Video]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2017. *Transformative Scenario Planning in Ghana - Part 2*. [Video]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2017. *Using TSP to think critically about the future of water for productive use in Omusati, Namibia*. [Video]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2018. *Considering the future of Prosopis: Participatory Scenario Analysis in Afar, Ethiopia*. [Video]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2018. *How thinking about the future improved farming practices in Ghana's Upper West region*. [Video]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2018. *Preparing for the future of agriculture and food in Ghana's Upper West region*. [Video]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).



ASSAR. 2018. *Spotlight on Transformative Scenario Planning*. [Spotlight]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2018. *Theatre of the oppressed: Adaptation futures 2018*. [Video]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2018. *Transformative Scenario Planning (TSP) in practice: Jalna, India*. [Video]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2019. *A focus on wellbeing can link adaptation to outcomes that matter to people*. [Information brief]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2019. *Adaptation is about people*. [Information brief]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2019. *Adaptation is about people*. [Video]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2019. *Challenging predominant views on climate change with Theatre of the Oppressed. Delft, Cape Town. January 2019*. [Video]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2019. *Climate change adaptation in Bobirwa sub-district, Botswana*. [Video]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2019. *Spotlight on Research for Impact*. [Spotlight]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2019. *Supporting resilient agriculture in semi-arid Ghana*. [Information brief]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

ASSAR. 2019. *Using Vulnerability and Risk Assessments to improve climate change adaptation in Bobirwa, Botswana*. [Video]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

D'Souza, M., Daware, H., Misquitta, K. and Mhaskar, B. 2018. *Stakeholder engagement report: Watershed Organisation Trust*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

Davies, J., Spear, D., Omari, K., Morchain, D., Urquhart, P. and Zaremba, J. 2017. *Background paper on Botswana's draft Drought Management Strategy*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

Degefu, M. A., Assen, M., Few, R. and Tebboth, M. G. L. In prep. *Perceptions of local people on impacts and management of Prosopis juliflora in arid/semi-arid regions of the Middle Awash Valley, Ethiopia*.

Few, R., Bendapudi, R., Mensah, A. and Spear, D. 2016. *Transformation in adaptation: Learning from ASSAR's regional diagnostic studies*. CRIA-ASSAR Working Paper. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

Few, R., Morchain, D., Spear, D., Mensah, A. and Bendapudi, R. 2017. Transformation, adaptation and development: Relating concepts to practice. *Palgrave Communications*, 3: 17092. DOI: [10.1057/palcomms.2017.92](https://doi.org/10.1057/palcomms.2017.92). [Link](#) to summary.

Few, R., Satyal P., Assen M., Camfield L., Leavy J. and McGahey D. 2018. *The development-adaptation spectrum in dryland East Africa: mapping risks, responses and critical questions for social research*. CRIA-ASSAR Working Paper. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

Few, R., Satyal, P. and Tebboth, M. G. L. In prep. Using a justice/ capabilities framing to understand people's vulnerability and adaptive capacity in the drylands of East Africa.

Hegga, S., Siyambango, N., Angula, M., Spear, D., Masundire, H., Molefe, C. and Morchain, D. 2015. *Stakeholder and influence network mapping exercise with the government, development and research actors in Namibia*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

Hegga, S. 2016. *Mapping out stakeholder influence on the implementation of climate change adaptation in Namibia – Short report*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

Hegga, S. 2016. *Vulnerability and risk assessment in the Onesi Constituency, Omusati Region, Namibia: Towards improving livelihood adaptation to climate change – Short report*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#) to English report. [Link](#) to Oshiwambo report.

Hegga, S., Zervogel, G., Angula, M., Spear, D., Nyamwanza, A., Ndeunyema, E., Kunamwene, I., Togarepi, C. and Morchain, D. 2016. *Vulnerability and risk assessment in Omusati Region in Namibia: Fostering people-centred adaptation to climate change*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

Hegga, S. and Kunamwene, I. In prep. Mapping actor influence in climate adaptation practices: The case of north-central Namibia. [Link](#) to poster.

Hegga, S., Kunamwene, I. and Zervogel, G. In prep. Local participation in decentralised water governance: Insights from north-central Namibia. [Link](#) to presentation.

Kale, E., Khabiya, P. and Joshi, V. 2018. *Using Transformative Scenario Planning to think critically about the future of water in rural Jalna, India*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

Masundire, H., Morchain, D., Raditloaneng, N., Hegga, S., Zervogel, G., Molefe, C., Angula, M. and Omari, K. 2016. *Vulnerability and risk assessment in Botswana's Bobirwa sub-district: Fostering people-centred adaptation to climate change*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

Mensah, A., Lawson E. T., Sidiki Alare, R. and Ansah, P. 2015. *ASSAR West Africa Research into Use training workshop: Transformative Scenario Planning, stakeholder mapping and analysis, and Vulnerability & Risks Assessment*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

Molefe, C. and Masundire, H. 2016. *Climate change vulnerability and risk analysis in the Bobirwa Sub-District, Botswana: Towards improving livelihood adaptation to climate – Short report*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

Molefe, C. and Moesi, M. 2018. *Identifying stakeholders and vulnerabilities in Botswana's Mahalapye sub-district*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).

Morchain, D. 2018. Rethinking the framing of climate change adaptation: Knowledge, power, and politics. In: S. Klepp and L. Chavez-Rodriguez (eds.) *A Critical Approach to Climate Change Adaptation*. London, UK: Routledge, pp. 77-96. [Link](#) to book. [Link](#) to chapter.

Morchain, D., Zervogel, G., Spear, D., Masundire, H., Angula, M., Davies, J., Hegga, S. and Molefe, C. 2019. Building transformative capacity in southern Africa: Surfacing knowledge through participatory Vulnerability and Risk Assessments. *Action Research*, 17(1): 19-41. DOI: [10.1177/1476750319829205](https://doi.org/10.1177/1476750319829205). [Link](#) to summary.



- Olabisi, L. S., Liverpool-Tasie, S., Rivers III, L., Ligmann-Zielinska, A., Du, J., Denny, R., Marquart-Pyatt, S. and Sidibé, A. 2018. Using participatory modeling processes to identify sources of climate risk in West Africa. *Environment Systems and Decisions*, 38(1): 23-32. DOI: [10.1007/s10669-017-9653-6](https://doi.org/10.1007/s10669-017-9653-6). [Link](#) to summary.
- Perez, T. 2017. *Using Transformative Scenario Planning to think critically about the future of water for productive use in Omusati, Namibia*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#) to brief. [Link](#) to report.
- Perez, T. In prep. The power of workshop fatigue in transdisciplinary partnerships. [Link](#) to summary.
- Perez, T. In prep. Thinking differently about planning processes to enable climate change adaptation in Namibia and India. [Link](#) to summary.
- Perez, T., Molefe, C. and Masundire, H. 2018. *Using Transformative Scenario Planning as a way to think differently about the future of land use in Bobirwa, Botswana*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#) to English report. [Link](#) to seTswana report.
- Pillai, S. and Bendapudi, R. 2019. *Inclusion of local aspirations in village development plans in Maharashtra*. CARIAA-ASSAR Working Paper. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).
- Poonacha, P. and Koduganti, M. 2017. *Thinking critically about the future of water security in Bengaluru, India using Transformative Scenario Planning*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).
- Poonacha, P. and Koduganti, M. 2018. *Using Transformative Scenario Planning to think critically about the future of water security in Bangalore*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).
- Rokitzki, M. and Morchain, D. 2015. *Climate change adaptation practice in semi-arid regions: Views and insights by practitioners*. [Report]. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).
- Satyal, P., Budds, J., Few, R., Bahir, A., Kibet, S. In prep. Adaptation to climate change in the context of decentralisation: Exploring multi-level governance of water-related issues in semi-arid areas of East Africa. [Link](#) to presentation.
- Shalumbu, B. and Spear, D. 2016. *Preparing for Transformative Scenario Planning (TSP) in Namibia*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).
- Sidibé, A., Traore, E., Segnon, A., Thompson-Hall, M. and Hoffman, T. 2017. *Using Transformative Scenario Planning to think critically about the future of agriculture, natural resources and food security in Koutiala, Mali*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).
- Sidibe, A., Totin, E. and Olabisi, L. S. In prep. Analysing consensus building in the participatory scenario process: A case of transformative scenario process in Mali.
- Singh, C., Basu, R. and Srinivas, A. 2016. *Livelihood vulnerability and adaptation in Kolar District, Karnataka, India: Mapping risks and responses*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).
- Tebboth, M. G. L. and Few, R. 2018. *Considering the future of Prosopis: Participatory Scenario Analysis in Afar, Ethiopia*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).
- Tebboth, M. G. L. and Few, R. 2018. *Considering the future of the rangelands: Participatory Scenario Analysis in Isiolo, Kenya*. Adaptation at Scale in Semi-Arid Regions (ASSAR). [Link](#).
- Tebboth, M. G. L., Few, R., Assen, M. and Degefu, M. In prep. Valuing *Prosopis juliflora*? Analysing ecosystem service narratives to understand environmental management dilemmas
- Totin, E., Butler, J. R., Sidibé, A., Partey, S., Thornton, P. K. and Tabo, R. 2018. Can scenario planning catalyse transformational change? Evaluating a climate change policy case study in Mali. *Futures*, 96: 44-56. DOI: [10.1016/j.futures.2017.11.005](https://doi.org/10.1016/j.futures.2017.11.005). [Link](#) to summary.
- Totin, E., Sidibe, A., Thompson-Hall, M. and Olabisi, L. In prep. Achieving sustainable future objectives under uncertain conditions: Application of a reflexive framework to adaptation trajectories in rural Mali. [Link](#) to summary.
- Werners, S.E., Wise, R., Butler, J., Totin, E. and Vincent, K. In prep. Learning from adaptation pathway development: key characteristics and guiding principles.

**Photographs in this section:** Abubakari Ahmed, Lucia Scodanibbio, Nick Reay



International Development  
Research Centre

Centre de recherches pour le  
développement international



This work was carried out under the Collaborative Adaptation Research Initiative in Africa and Asia (CARIAA), with financial support from the UK Government's Department for International Development (DfID) and the International Development Research Centre (IDRC), Canada. The views expressed in this work are those of the creators and do not necessarily represent those of DfID and IDRC or its Board of Governors.



Centre de recherches pour le  
développement international



This work was carried out under the Collaborative Adaptation Research Initiative in Africa and Asia (CARIAA), with financial support from the UK Government's Department for International Development (DfID) and the International Development Research Centre (IDRC), Canada. The views expressed in this work are those of the creators and do not necessarily represent those of DfID and IDRC or its Board of Governors.