

# THE ADAPTATION RESEARCH FOR IMPACT PRINCIPLES



**Authors:**

Nora Nisi and Aditya V. Bahadur with input from Julio Araujo, Suzanne Carter, Anand Patwardhan, Rosalind West, Jesse DiMaria-Kinney, Sydney Church and members of the Adaptation Research Alliance (ARA).

**Date:** October 2022

**Design:**

InkDesign Publishing Solutions, Cape Town,  
South Africa, [www.inkdesign.co.za](http://www.inkdesign.co.za)

**Funders:**

ARA funded by:



ARA Secretariat:



SOUTH  
SOUTH  
NORTH

# Contents

---

<b>1</b>	<b>The Adaptation Research Alliance</b>	<b>2</b>
1.1	The Need for Adaptation Research for Impact Principles	3
<b>2</b>	<b>The Adaptation Research for Impact Principles</b>	<b>6</b>
2.1	The Principles in Detail	7
PRINCIPLE 1	Research is needs-driven, solutions-oriented and leads to a positive impact on the lives of those at risk from climate change	8
PRINCIPLE 2	Research is transdisciplinary and co-produced with users	10
PRINCIPLE 3	Research emphasizes societal impact	13
PRINCIPLE 4	Research builds capacity and empowers actors for the long-term	15
PRINCIPLE 5	Research processes address structural inequities that lead to increased vulnerability and reduced adaptive capacity of those at risk	19
PRINCIPLE 6	Learning-while-doing enables adaptation action to be evidence-based and increasingly effective	23
<b>3</b>	<b>Tracking, learning, sharing and new programme development</b>	<b>26</b>
<b>4</b>	<b>Conclusion</b>	<b>28</b>
	<b>References</b>	<b>29</b>

## 1

## The Adaptation Research Alliance

Launched at CoP26, the Adaptation Research Alliance (ARA) is a global collaborative effort that seeks to mobilise increased investment and capacity for action-oriented research for effective adaptation to climate change. It aims to catalyse change – at the scale and urgency demanded by the science. The Alliance envisions a world by 2030 in which the research community is a highly valued partner to policymakers, practitioners and the most vulnerable communities. The Alliance wishes to engage effectively for the delivery of innovative, user-driven solutions for adaptation and resilience at all levels, from global to local.

The ARA will deliver on its mission by conducting activities spanning three strategic functions. First, it will advocate globally for greater emphasis and investment for supporting action-oriented research that informs adaptation and resilience from the local to global scales. Second, the ARA will provide a forum for better research planning and cooperation, acting as a connector and an enabler for the variety of actors seeking to promote action-oriented research. Third, the ARA will create, operate and facilitate processes to deliver resources for action-oriented research in developing countries.

The Alliance is a voluntary coalition of institutions across the adaptation research and action communities. It brings together both traditional ‘research funders’, such as science councils, and ‘action funders’, such as development donors, multilateral financial institutions, bilateral actors, philanthropic organisations and the private sector. It includes a range of research institutions some of whom are nested within university systems while some operate as standalone think- tanks. The ARA also includes a number of organisations engaged in processes of delivering adaptation programmes and projects to enhance the resilience of vulnerable communities. These range from large, multi-national non-governmental organisations and transnational civil society networks to smaller, grassroots organisations operating at the local level. A number of governments and governmental organisations are also members of the ARA, spanning municipalities and inter-governmental partnerships. Together these entities that constitute the ARA are working towards bringing a research enterprise to life that is action-oriented; and which helps deliver real and significant benefits to those at risk from climate change impacts.



To ensure that this disparate group of organisations spread across almost 50 countries on 6 continents abides by a common set of values and works towards shared goals as part of a collective vision of change, they have developed and endorsed the Adaptation Research for Impact Principles. The following sections will provide the rationale for the promulgation of the Principles (section 1.1), explain the process of their development and their intended use by the ARA (section 2). Following this, in section 2.1, the paper will provide an in-depth explanation of each Principle by outlining its key features, how it is different from business as usual and its implications for different types of stakeholders. This section will also provide a plethora of examples that illustrate how these principles can be brought to life and operationalised effectively. The penultimate section (section 3) will outline the manner in which these Principles will influence the future activities of the ARA and the paper will conclude with an overview of the ARA's vision for their evolution (section 4). As such, the paper will provide current and future members of the ARA, as well as other interested climate and development actors, with a clear view of the values and beliefs that guide this burgeoning global Alliance.

## 1.1 The Need for Adaptation Research for Impact Principles

Along with ensuring cohesion within the ARA, the Principles are aimed at galvanizing action to overcome a set of hurdles that currently impede processes to realise the potential of action-oriented research for supporting vulnerable communities across the world adapt to a changing climate.

First, there is significant under-investment in action-oriented research. Research funding for climate change is disproportionately focused on natural scientific inquiry while transdisciplinary research that is co-produced with users and outcome-focused is overlooked (Overland and Sovakool 2020). "Funding for climate research appears to be based on the assumption that if natural scientists work out the causes, impacts and technological remedies of climate change, then politicians, officials and citizens will spontaneously change their behaviour to tackle the problem. The past decades have shown that this assumption does not hold," (ibid: 4). This is why the Principles direct institutions to invest time and resources in research that spans disciplinary boundaries, leads to capacity-building and enhances the resilience of those most vulnerable to current and future climate risks.

“

TO ENSURE THAT THIS DISPARATE GROUP OF ORGANISATIONS SPREAD ACROSS ALMOST 50 COUNTRIES ON 6 CONTINENTS ABIDES BY A COMMON SET OF VALUES AND WORKS TOWARDS SHARED GOALS AS PART OF A COLLECTIVE VISION OF CHANGE, THEY HAVE DEVELOPED AND ENDORSED THE ADAPTATION RESEARCH FOR IMPACT PRINCIPLES.

”


“

... GENDER AND TRADITIONAL  
KNOWLEDGE ARE RARELY  
EXPLORED IN DETAIL  
IN CLIMATE RESEARCH.

Second, research agendas are often decoupled from the needs of the most vulnerable. Major international climate research processes have been criticised for employing a western scientific lens for investigation and overlooking the priorities of the local and marginalised communities that bear the brunt of climate change (McLeod et. al. 2018). Additionally, “... gender and traditional knowledge are rarely explored in detail in climate research,” despite there being a substantial body of evidence on how indigenous communities, women and other marginalised groups are more vulnerable than others (ibid: 179). This why the Principles urge institutions to ensure that research stems from a firm understanding of what the most vulnerable need and is delivered through long-term and sustained investment to achieve impactful results.

Third, misaligned incentives and institutional barriers often prevent linking knowledge and implementation effectively for making tangible gains in vulnerability reduction for those who need it most. Despite the generation of more and more data, action to tackle climate change and its impacts has not kept pace (Knutti 2019: 23). Researchers need to make their accumulated knowledge useful to decision making processes that lead to action by drawing on a variety of disciplines. They need to provide research findings in geographic and time scales that aid practical action while engaging with multiple stakeholders (especially users of research) during research processes. Finally, they must focus on identifying low-regret adaptation solutions that work well under a wide range of future climate scenarios as opposed to strategies optimised for very specific climate futures (ibid). This is why the Principles urge institutions to deliver practical, implementable and flexible adaptation solutions that are effective in contexts of high uncertainty through an engagement with a wide variety of stakeholders from the research-action spectrum.

Fourth, there is a lack of coherence in investments along the chain from research through to useful application, and a lack of coordination and collaboration to ensure effective use of scarce funding. “No single programme or investment can address all climate risks in every context. So, collaborative approaches are crucial to support convergence between adaptation initiatives,” (Soanes et al. 2020 P30). Mostly, adaptation donors across the research-action spectrum do not coordinate investments effectively and regional and national institutions make only sporadic attempts at coordination (ibid). This results in duplication and reduced efficiency. This is why the Principles urge donors to collaboratively identify the most pressing adaptation challenges and scale up coordinated investments for finding solutions. They also direct those delivering adaptation action and research to ensure that they are communicating deeply and iteratively with a wide variety of stakeholders to enhance the relevance and effectiveness of their interventions.



Fifth, there is insufficient emphasis on creating lasting institutional and knowledge capacities in the communities, countries and regions facing the greatest climate adaptation and resilience challenges. Experts from elite institutions, disproportionately located in the Global North, continue to lead processes of adaptation research and action and use local actors and institutions in contexts most affected by climate change merely as conduits or sources of information (Lovell et al. 2016; Reid et al. 2013). This in turn leads to the development of adaptation solutions that may not be calibrated to local contexts and may not have the buy-in of local communities essential for their success. This is why the Principles emphatically argue for sustainably enhancing the capacity of local institutions, organisations, coalitions, practitioners and researchers to respond to climate risks. This includes “... the capacity to understand climate risks and uncertainties, generate solutions, and facilitate and manage adaptation initiatives.” (Soanes et al. 2020 P 23).

Finally, adaptation implementation efforts do not pay sufficient attention to iteratively learning and tracking progress using metrics, leading to a lack of dynamic understanding about the benefits and effectiveness of adaptation interventions as they unfold. This is an important challenge as operational contexts, particularly those that are highly exposed to climate impacts, can shift iteratively and it is crucial to ensure that those running adaptation initiatives are constantly learning about these changes to adjust and tweak their interventions (Arora 2019). This is why the Principles nudge institutions to learn-while-doing and integrate emerging lessons on what is working and what is not through iterative research processes and feedback loops that enhance the effectiveness of actions.







## 2

## The Adaptation Research for Impact Principles

This section will provide a detailed explanation of the Principles, how they differ from ‘business as usual’, the implications they hold for different sets of stakeholders, and how they can be operationalised and measured. However, prior to that it is important to briefly review the process through which they were developed. The initial draft of the principles was formulated and agreed upon by a group of 33 organisations (spanning donors, multilateral institutions, bilateral agencies, research institutes and NGOs) that came together at the Gobeshona Conference in 2021 to formally commit to launching the Adaptation Research Alliance. This draft was then used for deep and wide consultations in a series of workshops and meetings with a large number of organisations that came together at platforms organised specifically to support the ARA’s development process (including a large plenary organised in May 2021) and at sessions organised by the ARA in salient policy forums (such as the London Climate Action Week). Following this, every organisation (over 90 in all) that was signing up to the ARA ahead of its launch at CoP26 was given the opportunity to comment on each Principle and suggest improvements and adjustments. This feedback was collated and the Principles were updated to reflect these changes in time for the launch of the ARA. As such, the Principles are the product of the insights and inputs of the large committee of organisations that together make up the ARA.

The Principles are aimed at supporting and influencing the activities, plans, programmes and policies of ARA members in particular and the broader community of practice working on adaptation action and research in general. As the ARA is predicated on a firm foundation of voluntary association, these are not enforceable by-laws or regulations but rather are a set of shared ‘values’ that all those that are part of the ARA have committed to embed in their work. Section 3 will explore the manner in which a tracking, learning and sharing strategy prepared in consultation with all those who have endorsed the Principles will help track the progress that ARA members are making in operationalising the Principles. Through this, the ARA intends to establish an environment of ‘cooperative competitiveness’ where ARA members will learn from each other and work to enhance progress towards bringing these to life. Beyond the members of the ARA, these Principles are meant to set a standard for the wider, global community of organisations (across the research-action spectrum) working on climate change adaptation initiatives. These Principles will promote a vision of



action-oriented research that is needs-driven, transdisciplinary and co-produced with users to deliver societal impact, build capacity and address the structural inequities that underpin risk. As such, these will be the ‘norm’ to be followed by organisations aiming to sustainably reduce vulnerability to climate change across the world.

Before moving onto the next section, it is also crucial to understand that the Adaptation Research for Impact Principles have been developed keeping in mind other similar frameworks in existence. Chief amongst these are the Principles for Locally Led Adaptation (LLA) that have been developed by a large number of organisations under the aegis of the Global Commission on Adaptation (Soanes et al. 2020). These were kept firmly in view when the Adaptation Research for Impact Principles were being developed to ensure that synergies between both these agendas were harnessed. As a result, both sets of principles underline the primacy of vulnerable communities in setting the agenda, building local institutions and capacity, engaging with the structural drivers of climate risk and adopting solutions that are geared to operate in contexts of high uncertainty. What sets these agendas apart is that the Adaptation Research for Impact Principles focus quite specifically on enhancing action-oriented research for adaptation whereas the LLA Principles are aimed at influencing adaptation finance and practice (ibid).

Similarly, the Principles share strong synergies with the ten principles for good knowledge co-production for climate change adaptation. Both sets of principles highlight the importance of flexibility, inclusivity, collaboration, ongoing communication with a wide group of stakeholders and a trans disciplinary approach (Carter et al. 2019). What sets these agendas apart is the fact that the co-production principles quite specifically aim to bring together the producers of weather and climate information with those who use the information to make decisions, whereas the Adaptation Research for Impact Principles are broader and aim to strengthen the enabling environment for action-oriented research for adaptation.

## 2.1 The Principles in Detail

This section will present each of the six Adaptation Research for Impact Principles. For each Principle, the section will provide an overview of the Principle, explore how this is different from business as usual, provide examples of how they might be operationalised, the implication of the Principle for different types of stakeholders and the types of metrics that may be used to track their progress.

6

THE PRINCIPLES ARE AIMED AT SUPPORTING AND INFLUENCING THE ACTIVITIES, PLANS, PROGRAMMES AND POLICIES OF ARA MEMBERS IN PARTICULAR AND THE BROADER COMMUNITY OF PRACTICE WORKING ON ADAPTATION ACTION AND RESEARCH IN GENERAL.

### ADAPTATION RESEARCH FOR IMPACT PRINCIPLES

- P1** Research is needs-driven, solutions-oriented and leads to a positive impact on the lives of those at risk from climate change.
- P2** Research is transdisciplinary and co-produced with users.
- P3** Research emphasises societal impact.
- P4** Research builds capacity and empowers actors for the long term.
- P5** Research processes address structural inequities that lead to increased vulnerability and reduced adaptive capacity for those at risk.
- P6** Learning-while-doing enables adaptation action to be evidence-based and increasingly effective.



Action research for adaptation is driven by the needs of users and seeks to be solutions oriented. Research processes should aim to find practical and implementable solutions that can make a positive impact on the lives of vulnerable communities by delivering effective solutions to improve both current and future climate risks. Research priorities and agendas should be set through open and inclusive processes that reflect all stakeholders' contexts, needs and interests.

## PRINCIPLE 1

### Research is needs-driven, solutions-oriented and leads to a positive impact on the lives of those at risk from climate change

There are structural and instrumental imperatives for research that stem from an accurate understanding of the needs of the constituencies for which it is intended. The former includes the imperative of 'social justice': those that are seen as the primary stakeholders should have a decisive role in influencing the scope of research and nature of findings (Kohler B, Koontz TM 2008). The latter includes imperatives such as ensuring accuracy and authenticity in research: often, users such as "... residents and local organisations are intimately connected to local places and familiar with the locality's particular social, historical and political contexts," essential for reaching valid and precise insights on which to base adaptation solutions (Ross et. al. 2015: 1). Even where 'users' may not be vulnerable communities, and are for example government departments, ensuring their views, needs and requirements are taken into consideration from the very beginning of research processes is critical for ensuring buy-in and ownership (Gogoi et al. 2017). Overall, ensuring that the needs of users are the foundation of any research process leads to more effective, practical solutions that carry a greater potential of positively impacting the lives of those at risk from climate change.



### How is this different from business-as-usual?

Unfortunately, for far too long, research processes have been dominated and led by 'experts' external to the contexts that they aim to study and have marginalised the views of those that the research aims to study and, ultimately, benefit. Blicharska et al. (2017 P22), in their salient analysis of the 'North-South divide' in research relevant to climate change, note that during the period 2000–2014 "... more than 85% of author affiliations of relevant scientific papers published (93,584 publications) were from OECD countries" while only 1.1% were from low-income economies. They go on to note that this mirrors a finding that around 80% of authors and reviewers of successive assessment reports produced by the IPCC were also from OECD countries (ibid). While those inhabiting local contexts (that the research aims to study) or experiencing challenges (for which the research aims to find solutions) may have contributed to these studies, these statistics indicate that the influence in defining key parameters and findings is still retained by external 'experts'. This imbalance carries the potential to deliver solutions that are not calibrated to local contexts, do not accurately reflect the priorities of local communities or other end-users and are therefore likely to be less effective in tackling climate change and its impacts. Thus, research processes must become more inclusive, and challenge established knowledge hierarchies if they are to respond to local needs and deliver solutions that lead to a positive impact on the lives of those at risk from climate change.





## Implications for stakeholders

This Principle has important implications for key stakeholders across the research-action spectrum. Those financing research on adaptation must ensure that their research calls or 'requests for proposal' are informed by the viewpoints and needs of those for whom the research is intended. Additionally, they must stipulate the importance of accurately mapping user needs through genuinely participatory approaches as part of the research processes that they are commissioning. Researchers must ensure that they are not going into the process with preconceived ideas of what the needs are and that they are employing the right methodologies for assessing the needs of users thoroughly and iteratively. This could include participatory needs assessment employing surveys, standardized needs assessment measures, validating existing statistical information, individual interviews, focus groups, nominal groups (more structured than focus groups) and community forums (Tutty and Rothery 2010). Practitioners (i.e., those implementing adaptation actions and initiatives) must engage with these processes as they are unfolding by contributing insights and data from the projects that they are running.



## Example of practice

Certain initiatives which are already bringing this principle to life provide models for others to follow. A good example of this is the DARAJA initiative that helps bridge the divide between producers and users of climate information in Kenya and Tanzania. The project did this by recruiting a cadre of community-based volunteers that organised iterative rounds of group discussions with vulnerable communities to understand what information they need to better adapt to climate change and how this information needs to be communicated. These findings were then shared with meteorologists, climate scientists and radio presenters to ensure that a supportive ecosystem for decision-friendly climate information was brought to life to support the most vulnerable. This led to the conversion of dense meteorological data into daily, graphic-driven forecasts and snappy radio messages that are socialised by these community volunteers and have made a significant, positive impact on the ability of vulnerable communities to make decisions that help them better adapt to climate change. Thanks to the DARAJA project, which focused on increasing access to forecast information for those living in urban informal settlements, 98% of residents reported taking action to avoid household loss due to DARAJA services. As a result, 72% said they avoided personal damage and loss, such as saving income or protecting their home. In this way, the project invested heavily in understanding user needs and then delivered practical solutions that have led to a positive impact on the lives of those at risk from climate change<sup>1</sup>.

<sup>1</sup> <https://www.resurgence.io/solutions/climate-risk-visualisation-and-communication/daraja/>

“

OUR FOCUS IS ON ACTION RESEARCH – AS NEARLY ALL OUR RESEARCH IS BASED ON IMPLEMENTATION AND TESTING OF METHODOLOGIES ON THE GROUND WITH COMMUNITIES.”

– WOTR



98%

OF RESIDENTS LIVING IN URBAN INFORMAL SETTLEMENTS REPORTED TAKING ACTION TO AVOID HOUSEHOLD LOSS THANKS TO DARAJA SERVICES.



72%

SAID THEY AVOIDED PERSONAL DAMAGE AND LOSS, SUCH AS SAVING INCOME OR PROTECTING THEIR HOME AS A RESULT.



From the outset, research is co-produced with the people who will use it in practice and employs transdisciplinary approaches (i.e., incorporating thinking across boundaries of knowledge and disciplines) that emphasise collaboration. Research processes should include a wide variety of stakeholders from the research-action spectrum, drawing from the science, practice and policy communities as well as vulnerable people while respecting their time, interest and capacities.

Research processes should enable authentic inclusion of traditional and indigenous knowledge as well as a diversity of framings, narratives, voices, sectors and systems of knowledge.

## PRINCIPLE 2

### Research is transdisciplinary and co-produced with users

The impacts of climate change are felt across sectors and across the whole of society. Local communities are at the forefront of climate change impacts. These communities have often used their local experiences, perceptions, and traditional knowledge systems to provide a foundation to develop and implement community-based adaptation strategies (Mekonnen et al., 2021). This can be seen in countries such as Bangladesh (Anik and Khan, 2012), Mexico (Audefroy and Sanchez, 2017) and Ethiopia (Mekonnen et al., 2021) and regions such as the African Sahel (Nyong et al., 2007). In addition to this, local governments, NGOs and CSOs have local understandings of climate change impacts spanning decades and often play a crucial role in the coordination and implementation of local adaptation measures. NGOs in particular are often well rooted within communities – working closely with community members on local issues. This often leads to them being trusted members of the community and positioning them well to disseminate information, even in times of emergency (Murray et al., 2012). In Bangladesh, for example, NGOs are active in all nineteen coastal districts, working on issues of sanitation, water, climate change, fisheries, and supporting the provision of micro-credits and small loans (Mohiuddin, A. and Atiq, R, 2011).

A transdisciplinary research approach does not only ensure that the research process incorporates knowledge from across academic and scientific disciplines, but across boundaries of knowledge (McGregor, 2004). This means integrating knowledge and experiences from different knowledge producers, including those outside of the academic knowledge production process (Polk, 2015) – thus enabling the authentic inclusion of a diversity of framings, narratives, voices, and sectors. In utilising this transdisciplinary approach, research is then able to emphasise collaboration with a wide variety of stakeholders and enable the co-production of research with the people who will use it in practice.



#### How is this different from business-as-usual?

Rather than accounting for different sources of knowledge and coproducing research with users, most business-as-usual adaptation designs pay little attention to the value of local, cultural, indigenous and traditional generation of knowledge and decision-making is rarely based on the convergence of local and scientific data (Soanes et al., 2021). This is underscored by the prioritisation of ‘formal expert knowledge’ in knowledge production (Nyong et al., 2007). Business unusual means facilitating a collaborative approach that connects “scholars to society and research to action” (Knapp et al., 2019, p.1). As Wickson et al., (2006) put it, in



transdisciplinary research, “the scholar defines goals through ongoing consultation with the problem context and stakeholders” (Wickson et al., 2006, p. 1056). The coproduction of knowledge helps elucidate divergent understandings of a given issue and thus leads to a more contextually appropriate outcome. Additionally, such processes themselves contribute to the development of experiential knowledge and capacity development. Therefore, producing research which is transdisciplinary and coproduced ensures it can be used by science, practice, policy and local communities.



### Implications for stakeholders

Those financing research on adaptation must adopt a transdisciplinary approach by ensuring that their ‘requests for proposals’ call for a variety of disciplines and backgrounds—resulting in a diverse research team. For example, the British Academy’s knowledge frontiers programme aims to support projects that foster collaboration between and across communities of practice and disciplines. To guarantee this interdisciplinary approach, research-grant proposals for the programme are only considered eligible if the research team includes at least one person from the humanitarian or social sciences and at least one person from the natural, engineering or medical sciences (The British Academy, n.d.).

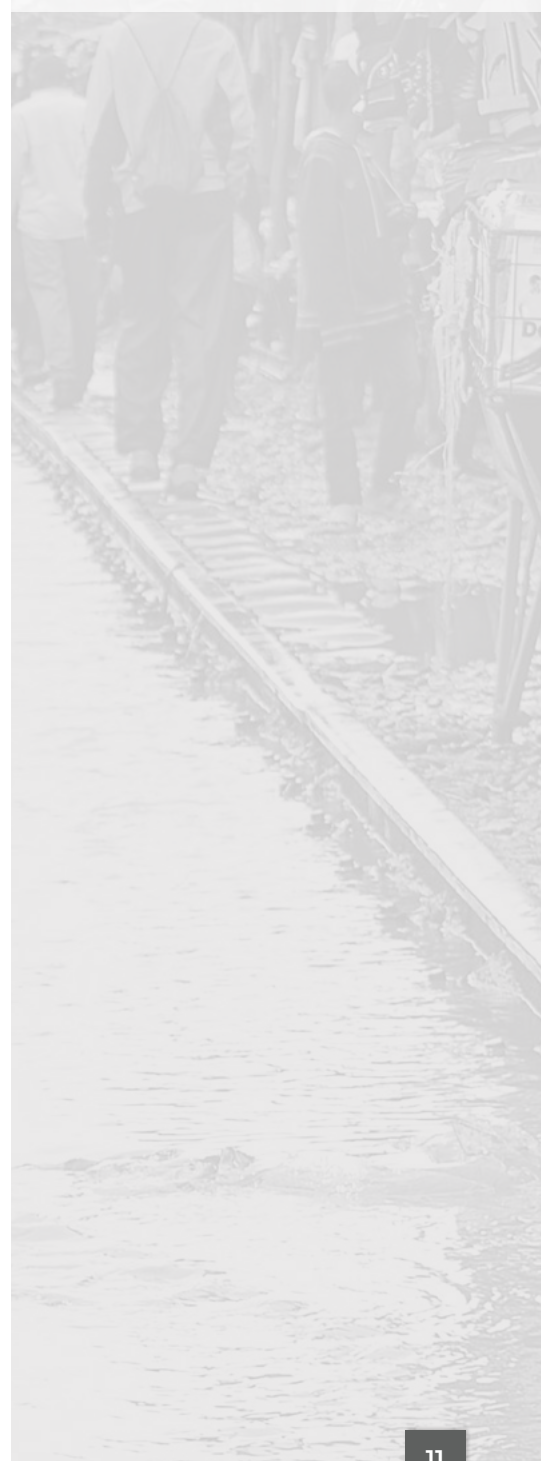
Researchers must also have methodologies in place that work to incorporate the views and knowledge of different stakeholders from the action-research spectrum (i.e., the science, practice and policy communities) as well as vulnerable communities. For instance, the Adaptation at Scale in Semi-Arid Regions (ASSAR) project was a multi-institutional project that combined interdisciplinary scientific research with stakeholder engagement to improve the understanding of barriers and enablers for effective climate change adaptation (ASSAR, n.d.).

Additionally, practitioners (i.e., those implementing adaptation actions and initiatives) must ensure that the right mechanisms are in place to facilitate collaboration. They must work to recruit people across disciplines while also identifying a variety of stakeholders to participate in research processes (e.g., local NGOs, local government and local communities). In doing so, they must also ensure that the time, interest and capacities of local communities, vulnerable people and those operating in the policy, practice and science communities are respected. Finally, it is crucial for funders, researchers and practitioners to acknowledge that effective co-production can only result from processes where traditional knowledge hierarchies are questioned and ‘expert’ views are considered alongside those with local, traditional and indigenous knowledge.

“

ENGAGING WITH  
STAKEHOLDERS AT THE  
BEGINNING OF THE PROCESS  
HELPS WITH FOCUS & SCOPING.  
DISCUSSING PRELIMINARY  
OUTCOMES ALSO HELPS  
TO ORIENTATE THE FINAL  
OUTCOMES TOWARDS THE  
USER’S ACTUAL NEEDS”

– NCDR



“

HOW CAN LOCAL KNOWLEDGE  
BE USED ALONGSIDE SCIENTIFIC  
DATA TO HELP SHAPE CITY  
DECISIONS IN PLANNING  
FOR RISK REDUCTION AND  
DISASTER PREPAREDNESS?”

– Mulligan and Harper, 2016



## Example of practice

The Urban Flood Resilience Project in Kibera was a 2-year (2015–2016) action-research project undertaken by the Kounkuey Design initiative (KDI), which is a community development and design non-profit. The project took place in Kibera, Nairobi, Kenya’s most populous informal settlement with 300,000 residents (Mulligan and Harper, 2016). Each year, residents of Kibera face the risk of flooding. Rather than simply aiming to apply top-down hard engineering approaches through a fly-in-fly-out consultancy, this project aimed to answer the following question: “How can local knowledge be used alongside scientific data to help shape city decisions in planning for risk reduction and disaster preparedness?” (Mulligan and Harper, 2016). KDI and its partners held the understanding that residents should not only be part of the process of finding solutions to the issue of flooding, but that they also hold valuable knowledge that should be taken into consideration (Mulligan and Harper, 2016). The process thus brought together several stakeholders with various backgrounds and carried out in-depth consultations and participatory analysis with the local government, community groups and nearly one-thousand local households. By bringing in the perspectives of the community, the project was able to understand local concerns and contexts around matters such as sanitation, flooding impacts, public space and watershed remediation (Mulligan and Harper, 2016). As a result, KDI and its partners were able to combine engineering, science and local knowledge to find bespoke solutions that catered to local needs and were useable by different local stakeholders (e.g., community members, the county government, national users and the research community) (Mulligan and Harper, 2016).



THE URBAN FLOOD  
RESILIENCE PROJECT TOOK  
PLACE IN KIBERA, NAIROBI,  
KENYA’S MOST POPULOUS  
INFORMAL SETTLEMENT WITH  
**300,000 RESIDENTS**



Community response to flooding  
Photo credit: DARAJA



## PRINCIPLE 3

### Research emphasizes societal impact

Research has predominantly been governed by academic interests and the process of ‘theory-building’ (Ernø-Kjølhede & Hansson, 2011 as referenced in Gajjar et al., 2021). When measuring the impact of research, the focus has tended towards the impact on scientific knowledge and academia, rather than society – with the speculation that science conducted at the highest level translated into *de-facto* societal benefit (Bornmann, 2013). Although this view has been changing since the 1990s (Bornmann, 2013), climate change may still play a ‘game-changing’ role for scientific research by “promoting a science that is grounded in linking the production of knowledge and societal action” (Campos et al., 2016, p.1). For example, climate change adaptation is grounded in processes and actions within a system that allow that system to better cope with, manage or adjust to changing conditions and hazards (Smit and Wandel, 2006). Therefore, in line with the previous principle, it is important that adaptation research has a context-specific design and follows a participatory approach (Campos et al., 2016) – bringing stakeholders together to co-define what constitutes a benefit and underscore that which is relevant.

#### ? How is this different from business-as-usual?

Whereas business-as-usual adaptation research focusses on scientific and academic impact, business-unusual means “rethinking ... the research structures, institutions and paradigms that have dominated global climate change research to date” so that notions of ‘research excellence’ encompass societal impact (Lahsen et al., 2010, p.364). In this context, there needs to be a move away from esoteric research and towards answering practical questions rooted in real issues. This begins with the research method itself. Business-unusual research processes include the meaningful participation of a variety of stakeholders such as researchers from the Global South, practitioners working on climate adaptation in the field and the vulnerable communities for which the research impact is intended (Lahsen et al., 2010, Campos et al., 2016). Through the meaningful participation of, and collaboration with, these stakeholders (especially vulnerable communities) adaptation research reflects the needs and priorities of vulnerable communities. This, in turn, orients research away from detached theory-building within the ‘ivory tower’ and towards impact on the ground.



Research should deliver societal impact at scale by ensuring the uptake of knowledge as well as innovative solutions for enhancing the resilience of those vulnerable to climate change impacts. Research outcomes should be measurable, with metrics that are co-developed with those at risk and relevant to their needs. Research institutions and funders should incentivize outcomes that are directed towards overcoming the challenges most relevant for those at risk.

“

WE HAVE REGULAR  
ENGAGEMENT WITH OUR  
MEMBER COUNTRIES TO TEST  
RELEVANCE. WE ALSO TRY  
TO PRIORITISE ISSUES &  
AREAS IDENTIFIED BY THE  
FARMERS & ORGANISATIONS  
THAT WE WORK WITH”

– CABI



## Implications for stakeholders

Those financing adaptation research must prioritise proposals where the emphasis on scientific and academic impact sits alongside an emphasis on societal impact to overcome the challenges most relevant for those at risk. Also, funders must acknowledge that such research will always unfold through processes that are emergent and therefore must rethink existing, linear and static approaches that privilege predetermined research plans in favour of more iterative and nimble methodologies. Researchers must ensure that the research process is delivering the societal benefit intended and taking a participatory approach that informs the process and ensures these impacts and benefits are grounded in reality. In addition to this, they must focus on outcomes that have metrics that are measurable.

For example, UKRI (a non-departmental public body that directs research and innovation funding) views research as that which enriches and improves the lives of people, increasing prosperity and fostering empowerment (UKRI, 2020). Thus, they aim to work with partners in building inclusive research and innovation systems that “connects discovery to prosperity and public good” (UKRI, 2020). As outcomes have measurable metrics, UKRI is then able to publish regular information and data demonstrating the value and impact of the research supported. Researchers must begin the action-research process by analysing the existing landscape and co-identifying how research can play a role in benefitting those that are at risk and where research can fill ‘knowledge-gaps’ to influence action. Research proposals should mindfully stem from an understanding of who is benefitting from a research initiative and pathways of impact. Practitioners (i.e., those implementing adaptation actions and initiatives) must engage in processes to inform research outcomes and the metrics chosen.



## Example of practice

The Climate Development Knowledge Network (CDKN), led by SouthSouthNorth (a South African based NGO), works alongside partners such as Fundación Futuro Latinoamericano (FFLA), ICLEI – Local Governments for Sustainability and the Overseas Development Institute (ODI) to enhance the quality of life for the poorest and most vulnerable to climate change. It does this by combining knowledge, research and technical advisory support and, through partnerships, supporting decision-makers in designing and delivering climate compatible development. CDKN’s research calls steer away from theoretical research and focus on research that emphasizes societal impact by influencing action on the ground. The Network supports research projects that demonstrate scientific excellence but also respond to identified needs within developing countries and promise high policy impact (ibid).



## PRINCIPLE 4

### Research builds capacity and empowers actors for the long-term

Climate adaptation initiatives often focus on technological, infrastructural and financial support. When capacity building or development is considered, it is seen as part of the process rather than the goal. Due in part to the fact that the term 'capacity' is vague and leads to broad understandings of what may or may not constitute as delivering it, projects then tend to succumb to the rationale that one-off activities such as trainings and workshops – that work to fill an immediate 'knowledge deficit' – fall under capacity development (Rokitzki and Hofemeier, 2021). Adaptation research initiatives are particularly prone to doing this. However, the common practice of delivering simple one-off workshops has shown to be ineffective in both delivering capacity building and disseminating scientific information (Alpizar et al., 2019).

More recently, within the climate development community, capacity development has been seen as "the process by which individuals, organisations and societies obtain, strengthen and maintain the capabilities to set and achieve their own development objectives over time" (Rokitzki and Hofemeier, 2021, p.4). Capacity development is therefore seen as an outcome where institutions, organisations, researchers and communities have gained the skills, abilities, knowledge and tools to adapt and respond to climate risks long after a project has ended. Workshops and trainings may still be effective, but only if they move beyond being ad-hoc activities and they are strategically designed for the purpose of achieving this outcome (as opposed to merely knowledge dissemination).

Given this understanding of capacity development, research processes must aim to empower actors for the long term. This is accomplished through capacity building that enables local institutions and actors to take leadership in designing and delivering future adaptation solutions. This means that rather than relying on the knowledge and skills of external 'experts', research processes must focus on building the capacity of local practitioners and researchers. Where the development of knowledge products is a component of the research process, access to these products must not be limited. For instance, if research outputs are only available in English and sitting behind a paywall, they may likely be inaccessible to local practitioners, researchers and institutions that need them. Similarly, in many contexts delivering research outputs in a variety of formats (e.g., radio and mixed media) may have greater impact on building capacity. It is imperative, therefore, that these products are not only shared in a variety of formats and via a variety of media, but that they are then widely accessible (long after a project has ended) and in the appropriate local languages.



Research processes should sustainably enhance the capacity of local institutions, organisations, coalitions, practitioners and researchers to respond to climate risks. This requires that information tools and knowledge products are widely accessible (e.g., in appropriate languages, not behind a paywall) and are embedded within capacity development activities that empower actors with the knowledge and ability to drive action. Research should not perpetuate existing inequalities but rather allow actors to question existing practices and produce alternative, innovative, inclusive and more effective pathways of adaptation.



## ? How is this different from business-as-usual?

In the business-as-usual scenario, the focus is more on ‘concrete’ outputs (e.g., built infrastructure). When capacity development is considered, it is not seen as an outcome but rather something supplementary than can be achieved through simple project activities. To illustrate this point, the Global Environmental Facility (GEF) – which has provided close to USD 20 billion in grants for resilience interventions since its inception in 1992 – has provided only 2.6% of that finance to ‘enabling activities’, i.e., capacity building (Dagnet et al., 2015). Also, in the business-as-usual scenario, these activities are not well-targeted or strategically conceived.

For instance, in the drought-prone regions of Costa Rica, a simple one-day scholar-practitioner workshop was held to deliver two components of an adaptation project: disseminate three years of scientific research and build capacity (Alpizar et al., 2019). Rather than taking a targeted approach to workshop attendance, half the attendees were randomly assigned from over 200 community-based organisations (Alpizar et al., 2019). In an analysis done two years later, Alpizar et al. (2019) found that the workshops did not manage to deliver impact.

In this way, capacity development activities at times become tick box exercises that come as an afterthought as opposed to ambitious and strategic initiatives that are seen as ‘core’ to the research enterprise. The business-unusual approach builds the capabilities of local institutions, organisations and researchers to foster ownership and empower actors to continue the development pathway, generate future solutions and question existing practices. Capacity is seen as an important outcome. Therefore, any activity chosen works to build the skills, abilities and knowledge necessary to realise this outcome. Attendance to activities is well-targeted but also makes sure to not perpetuate existing inequalities by excluding certain groups. Finally, the business unusual approach ensures that any knowledge-products produced are embedded within capacity development activities and remain widely available and accessible.



## Implications for stakeholders

Those funding adaptation research should ensure that proposals have processes in place to create ownership and develop local actors’ capabilities to lead future adaptation initiatives. Proposals must explicitly indicate how local institutions will be supported in capacity development and include detailed plans for achieving long-term sustainability (e.g., how local actors will be given the training, skills and

“

WE ARE WORKING  
WITH VULNERABLE AND  
MARGINALISED COMMUNITIES  
IN URBAN AND RURAL SETTINGS  
AND THESE COMMUNITIES  
ARE CO-TRAVELLERS IN  
RESEARCH AND ADVOCACY”

– PRIA

tools necessary to take project activities forward long after the project has ended). In line with this, donors must demand that the depth and quality of capacity-building activities are clear (rather than being obscurely embedded within other research activities), that proposals indicate how capacity development will be achieved through these activities, and that a clear justification for the involvement of any external ‘experts’ or consultants is provided. They must also ensure that funding is in place for these processes and place value on the tacit and factual knowledge that processes which include capacity development generate.

Researchers must ensure that the processes to create ownership and develop local actors’ capabilities are substantive, participatory and built into project design. Additionally, these activities must be co-developed with stakeholders. If capacity development is to be seen as an outcome, rather than an activity, then researchers must also ensure that monitoring and evaluation mechanisms are in place to track progress towards this outcome. All knowledge products and information generated should be co-created, translated into local language and accessible to a wide array of stakeholders. Researchers should also make sure that the products are understandable to a wide audience – moving away, where possible, from the heavy use of jargon and highly-technical language – and that they are packaged in a variety of accessible formats. Although external experts often play an important role in adaptation projects, practitioners should look to work with local experts as much as possible. This builds the capacity of local experts to take the work forward after the project has ended. Practitioners should also work to identify knowledge partners (e.g., universities) that can become ‘legacy partners’ (Rokitzi and Hofemeier, 2021). For instance, the Least Developed Countries Consortium on Climate Change (LUCCC), which works to enhance research capacity and foster collaborative learning by promoting South-South and two-way knowledge sharing. Networks such as this could play a valuable role in ensuring legacies and building sustainable capacity.



### Example of practice

A unique initiative led by Plan International trained women from local communities in undertaking feminist participatory action research in Zambia and Zimbabwe (Tanner et al. 2021). The objective of the research was to empower young women to investigate and act on the impact of climate change on young women and girls’ lives in these two countries. It aimed at building an evidence base that furthers understanding, through girls’ views and lived experiences, of how climate change is reshaping their lives and

“

ALL KNOWLEDGE PRODUCTS AND INFORMATION GENERATED SHOULD BE CO-CREATED, TRANSLATED INTO LOCAL LANGUAGE AND ACCESSIBLE TO A WIDE ARRAY OF STAKEHOLDERS.



“

THIS PROJECT SOUGHT TO PROVIDE HUMANITARIAN ACTORS, DONORS AND POLICY MAKERS WITH A BETTER UNDERSTANDING OF THE INTERVENTIONS NEEDED TO HELP REALISE YOUNG WOMEN AND GIRLS' FUNDAMENTAL RIGHT TO EDUCATION, EQUALITY AND CLIMATE JUSTICE.

their futures, including as a barrier to quality education. This project sought to provide humanitarian actors, donors and policy makers with a better understanding of the interventions needed to help realise young women and girls' fundamental right to education, equality and climate justice. The project employed 'feminist popular education' as a tool to run a series of workshops with women from marginalised communities, who had experienced the impacts of climate change related disasters, such as cyclones and droughts. This apart, the research drew on a range of participatory methods that encourage diverse participation, access and inclusion. These include tools designed to help educate and situate climate change in lived experience (e.g., through visioning exercises) as well as to understand the gendered drivers of risk and resilience, especially through household decision making. Similarly, 'adaptation pathway exercises' helped generate a range of endogenous responses. Young women researchers gained an active understanding of both feminism and climate change by trialling and developing these tools for deployment with wider groups and young women in each of the locations for the research – as such, they acted as mentors who built the capacity of other women from their communities to also become researchers and unearth local solutions for managing risk.

The fact that this research initiative set out to enhance the capabilities of communities that they were working with in undertaking feminist participatory action research (as opposed to just using them merely as conduits or sources of data) meant that over 87% of participants reported their understanding of key issues as very good or excellent, compared with less than 19% before the training and research processes. Additionally, those strongly agreeing with the statement 'I feel empowered to act on climate change at household level' rose from 19% to 50%. This presents one effective model of action research on climate change that sustainably enhances capacities, is rooted in local contexts and "... provides an emancipatory and decolonising approach to research that is owned by local researchers," (ibid P28).



THOSE STRONGLY AGREEING WITH THE STATEMENT 'I FEEL EMPOWERED TO ACT ON CLIMATE CHANGE AT HOUSEHOLD LEVEL' ROSE FROM

19% TO 50%



Photo credit: Participatory Research in Asia (PRIA)

## PRINCIPLE 5

### Research processes address structural inequities that lead to increased vulnerability and reduced adaptive capacity of those at risk

Inequities can be economic, gender-based, social, physical, and political and drive climate risk. This means that, although climate change impacts everyone, certain individuals, groups and communities are more vulnerable to the impacts of climate change because of the economic, social and political exclusions that they face. This includes the urban and rural poor, as well as marginalised groups who face intersectional inequities (e.g., women, youth, disabled, LGBTQ, ethnic minorities and indigenous peoples).


For instance, residents of informal settlements (slum dwellers) are often the poorest people in urban areas. As with other poor households, slum dwellers are likely to depend on very few assets and consume close to subsistence levels (German Watch, 2021). In addition to this, they may live in some of the most risk-prone areas of cities (e.g., on sloped areas next to rivers) and with inadequate infrastructure (e.g., inadequate drainage and poorly built homes). These factors diminish their coping-capacity and render them particularly vulnerable to the impacts of climate change hazards (e.g., floods).

Therefore, adaptation initiatives (research and practice) must make special provisions to include groups suffering due to differentials in power or risk the exacerbation of existing inequities. In India, for example, gender mainstreaming has not been considered essential in the process of developing climate compatible development mechanisms (Clements et al, 2016). This largely results in gender perspectives missing from the design and planning of urban climate change responses and policies (Clements et al, 2016). Some adaptation interventions may even unintentionally reinforce or redistribute sources of vulnerability (Eriksen et al., 2021).

If action-research is to empower the most vulnerable, then it must recognise and understand the inequities that cause vulnerability – and actively work to ensure that these inequities are mitigated rather than perpetuated. This begins within the first phases of any given action-research project. If there is unequal stakeholder participation in the initial consultation processes, it is likely that existing inequities will manifest themselves in project design and implementation. It is therefore imperative that vulnerable and marginalised groups are actively and meaningfully engaged throughout the research process – from conceptualisation to design to implementation. If women, youth, disabled, sexual and ethnic minorities, indigenous peoples and the poorest of society effectively engage in action research processes, and have their voices heard, then they will likely also



Action research recognises that power relations manifest through intersectional, gender-based, economic, social and political inequities, which are often the root causes of vulnerability. Research should encourage all sections of society, especially vulnerable and marginalised individuals, to meaningfully participate in and lead adaptation decision-making for transformative action. Research should recognise and mitigate the differentials in power-relations, which often leave gender and sexual minorities as well as other marginalised groups less able to effectively engage in – and benefit from – action and research processes. Everyone must have an equal right to be heard.



actively engage and take ownership, and therefore benefit from the outcomes. However, participation alone is not enough. Action-research must also ensure that vulnerable and marginalised groups are given the agency necessary to lead adaptation decision-making for transformative action.

## How is this different from business as usual?

In the business-as-usual scenario, structural inequities either are not properly recognised or are only considered in a superficial manner. For example, Bunce and Ford (2015) found that even in climate change adaptation, resilience and vulnerability research, engagement with 'gender' has been tokenistic rather than comprehensive. Moreover, rather than working to understand the broad components of inequity within gender, few studies have accounted for men or those outside of the gender binary, focussing primarily on women (Bunce and Ford, 2015).

Business-unusual action-research would begin by working to understand the context specific (i.e., local) drivers of vulnerability. Through this it is possible to then also begin to understand the structural issues underpinning risk and the power relations that manifest themselves through inequities. After this crucial step, business unusual action-research processes would work to address these inequities within project activities. Namely, by ensuring vulnerable and marginalised groups engage *meaningfully* throughout the research process and are given agency to lead in adaptation decision-making. This would work to both foster collaborative governance and ensure that societal impact of the project benefits the most vulnerable.

## Implications for stakeholders

Those funding adaptation action-research must demand that proposals outline specifically how economic, social and political inequities will be addressed. This must include plans on how vulnerable and marginalised groups will meaningfully engage in, and benefit from, the research process. This also means that, in the reporting period, donors must reject reports that superficially assess issues of justice. For example, rather than allowing a report to treat issues such as 'gender' as a tick-box exercise that simply denotes the number of women engaged in a focus group, the report should take this further and specifically outline how women's involvement in focus groups addressed gender inequities and issues around power and agency. Additionally, funders must mandate gender-sensitive design in call documentation to ensure that projects provide equitable benefit and assess proposals with a gender lens (i.e., ensuring gender-sensitive design, an appropriate team and plan for implementation) (Vincent 2021).

“

WE NEED TO BE INTENTIONAL ABOUT PARTICIPATION WHEN CO-CREATING COMMUNITY-BASED RESEARCH BY ENSURING THE PARTICIPATION OF VULNERABLE GROUPS WITHIN A COMMUNITY”

– ISET



Researchers must undertake background analysis to understand local drivers of vulnerability. This can be done, for example, through political economy and ecology analyses. Political economy analysis can help understand the power relations between different stakeholders and the underlying functions of political and economic exclusion. Political ecology can help in understanding inequalities, injustices and marginalisation around access to and control over resources (Tschakert, 2012). Context matters, and often in ways not expected. For example, “due to the complex social dimensions found in urban contexts in India, a gender sensitive approach to climate compatible development is fundamentally different in cities, compared to ... rural areas” (Clements et al., 2016). With this information at-hand, researchers must then look to make participatory processes as inclusive as possible—striving for equal participation across the stakeholder landscape and throughout the research process.

Practitioners must ensure that that activities on-the-ground are context specific. This means navigating culture, norms and values to best understand how research processes can address inequities in the most appropriate manner. This includes understanding different dimensions of power (e.g., invisible, formal, informal, symbolic) and how power is exercised. For instance, it may be that, in the analysis of local inequities in a specific area, a research team finds that women are historically marginalised and excluded. It is important, then, to recognise this gender inequity to ensure that the perspectives of women are heard and their participation in certain workshops is guaranteed. However, it may be that, in this particular context, women are unable or unlikely to speak and participate in the presence of men. In this case, having mixed focus groups or workshops would not be beneficial or effective. Rather, it would be more favourable and successful to conduct gender-segregated focus groups so women are comfortable enough to participate and speak.



### Example of practice

Operating throughout Uttar Pradesh, India, Gorakhpur Environmental Action Group (GEAG) is an NGO that has been working on sustainable development since 1975. The GEAG is based in the Eastern Terai area of Uttar Pradesh. Since the early 1990's, the organization has worked heavily on the sustainability of agriculture, focusing on vulnerable smallholder farmers and undertaking development initiatives to positively impact the lives of the poor, deprived and marginalized sections of the society, focusing on their participation, awareness and empowerment. Climate change impacts such as drought, flooding, and changes in temperature negatively affect agricultural production.

“

DUE TO THE COMPLEX SOCIAL DIMENSIONS FOUND IN URBAN CONTEXTS IN INDIA, A GENDER SENSITIVE APPROACH TO CLIMATE COMPATIBLE DEVELOPMENT IS FUNDAMENTALLY DIFFERENT IN CITIES, COMPARED TO ... RURAL AREAS.”

– Clements et al., 2016



“

ONE OF THE PROJECT'S OBJECTIVES WAS TO DEVELOP A WOMEN-FARMER LED SUSTAINABLE LIVELIHOOD SYSTEM IN THE CONTEXT OF FLOOD AND CLIMATE RESILIENCE.

In Eastern Uttar Pradesh, India, these impacts disproportionately affect smallholder farmers (GEAG, 2016). The effects on marginalised groups within these smallholder farming communities is even greater (*Project Completion report of Flood resilient livelihood system with a special focus on women farmers, 2016*). This is due to marginalised groups facing limited access and control over resources, traditional patterns of social exclusion, and denied decision-making power over common resources and services (*Project Completion report of Flood resilient livelihood system with a special focus on women farmers, 2016*). From 2012 to 2016 GEAG received funding from the Department of International Development (DFID) in the UK and partnered with the Poorest Areas Civil Society (PACS) to address these issues. GEAG focussed on smallholder farmers belonging primarily to the marginalised and excluded Scheduled Caste (SC) and Other Backward Communities (OBC), as well as those engaging in off-farm activities (e.g. goat livestock and poultry) belonging to the Muslim minority. Within these already excluded groups, women faced even greater obstacles and exclusion. GEAG's project (Flood Resilient Livelihood System with Special Focus on Women Farmers) has not only worked to help small and marginalised women farmers become flood and climate resilient, but also to empower them to address issues of land rights and control over resources. One of the project's objectives was to develop a women-farmer led sustainable livelihood system in the context of flood and climate resilience. This livelihood system would also aid in addressing the root causes of marginalisation.



Community preventive measures  
Photo credit: DARAJA



## PRINCIPLE 6

### Learning-while-doing enables adaptation action to be evidence-based and increasingly effective

Climate change impacts are changing over time. As Adger and Vincent (2005) put it, “aggregating [the] impacts of climate change is an uncertain science since moving from biogeochemical cycling through to impact assessment involves a complex set of links in the chain of causality” (Adger and Vincent 2005, p. 400). This results in complex situations of high uncertainty. Changes in the frequency and severity of both rapid-onset and slow-onset events caused by climate change result in changes in the impacts of those events on communities and households. There is, therefore, a level of uncertainty in delivering effective adaptation (Adger and Vincent, 2005; Willows and Connell, 2003). This often results in adaptation approaches themselves having to be flexible – evolving and adapting over time to address the inherent uncertainty surrounding climate change.

“A resilient intervention is not only one that is able to achieve its objectives today, but also one that is robust, meaning that it performs well under a wide variety of futures, and adaptive, meaning that it can be adapted to changing (unforeseen) future conditions” (Ranger, 2013, P. ix-x). To accommodate this need for adaptiveness, the process of adaptation action-research must be iterative and cyclical. Over time, new research findings, information, and lessons will emerge. It is therefore essential that there not only exist an inclusive monitoring and sharing process that allow for lessons to be documented and shared, but also that the planning and implementation process of adaptation action has the flexibility necessary for these lessons to then be incorporated. These real-time feedback loops allow adaptation efforts to adjust and change, making them more robust and improving their effectiveness over time (German et al., 2012 as cited in Gajjar et al., 2021).

#### ? How is this different from business-as-usual?

Business-as-usual approaches map climate risk at a fixed point in time, relying heavily on historical data. The programmes and projects that then evolve out of this approach incorporate this static understanding of climate change – rendering them inflexible and rigid. Business as usual approaches also tend to adhere to linear log-frames with set inputs and outputs. When learning, monitoring and evaluation *are* considered, the intended aim is to communicate insights and lessons to donors for accountability purposes (as opposed to adjusting activities) (Laws and Valters, 2021).

A business-unusual approach plans for the inherent uncertainty through the acknowledgement by researchers (and donors) that for adaptation approaches to be effective over-time, they must be flexible to change over-time. This begins by incorporating uncertainty into risk-mapping.



Research and action processes for adaptation that involve inclusive monitoring and sharing processes allow for ‘learning-while-doing’ and stronger integration of emerging lessons on what is working and what is not. Additionally, iterative research processes accommodate emerging knowledge and allow adaptation efforts to adjust accordingly and improve effectiveness over time. Flexible approaches to planning and implementation allow real-time feedback loops between research and action, ensuring that evolving knowledge can influence adaptation practice and enable effective anticipatory action in complex situations of high uncertainty.



“

WE SHOULD ENGAGE  
PRACTITIONER GROUPS  
EARLY INTO ACTION  
RESEARCH PROJECTS – SUCH  
AS CIVIL SOCIETY ACTORS,  
COMMUNITY ORGANISATIONS  
AND YOUTH LEADERS”

– PlanAdapt

This is particularly important in locations—such as many LDCs, fragile states and SIDs—that lack access to data for effective climate risk-assessments (UNFCCC,2020). The business-unusual approach to adaptation-research works to create an enabling environment for regular reviews, analysis and knowledge-gathering of emerging research and on-the-ground lessons. Rather than doing this for the sake of donor accountability, this is done to iteratively work learning back into a project and, over time, build an evidence-base that informs future adaptation action.



## Implications for stakeholders

This Principle has important implications for key stakeholders across the research-action spectrum. Those financing adaptation research must be open to flexible programming and support emergent, flexible adaptation processes. This means rather than focussing on linear log-frames with inflexible outputs, donors should give space to a learning process that allows new insights, information, knowledge and on-the-ground lessons to inform potential change. Researchers then play a pivotal role in ensuring that methodologies include robust monitoring and sharing processes that accommodate emerging knowledge. This also means being open to the uptake of this emerging knowledge and, based on this, the real-time adjustments to adaptation strategies. The DARAJA project, for example, planned for feedback loops taking place between the Met Department, stakeholder groups and end-users. The project then assessed the lessons and improvements emanating from these learning loops to adjust the services being delivered. Practitioners should support on-the-ground monitoring processes. In addition to this, they should foster peer-to-peer knowledge exchange within learning communities. Practitioners too must consider ways to balance the pre-defined with emerging outputs that would allow for wider, and sometimes unexpected, impact (Araujo 2020).



Co-Design workshop  
Photo credit: DARAJA



## Example of practice

The Action on Climate Today (ACT) programme was a five-year initiative, beginning in 2014, that aimed to strengthen systems of planning and delivery in South Asia – supporting governments in mainstreaming climate change resilience concerns into their policies, programmes and budgets (Arora et al., 2019). ACT began with the rational that the pathway to adapting to climate change is unknown. Given this, it sought an *adaptive* programme management approach—one that was flexible enough to experiment with different strategies and entry points (Arora et al., 2019). The adaptive approach included an evolving theory of change, experimentation and learning, management flexibility, frequent assessments of changes in the local context (utilising ongoing political economy analysis approaches), and continuous engagement with a range of stakeholders. Rather than working with predetermined and inflexible “off-the-shelf” adaptation strategies, ACT worked with a flexible donor log-frame. This allowed the programme to meet intended overall outcomes but work within the reality of the different political landscapes. Ongoing monitoring and evaluation are important in any adaptation project. Within this project, OPM focussed on both qualitative and quantitative M&E. This means that OPM built and strengthened its evidence-base not only through the collection of concrete data, but also by considering practical experience and qualitative insights collected iteratively. This allowed for an adaptive programme that responded to opportunities as they emerged.

“

RATHER THAN WORKING WITH PREDETERMINED AND INFLEXIBLE “OFF-THE-SHELF” ADAPTATION STRATEGIES, ACT WORKED WITH A FLEXIBLE DONOR LOG-FRAME.





# 3

## Tracking, learning, sharing and new programme development

As previously mentioned, the ARA has a highly diverse membership base. At the time that this paper is going to press, the ARA's membership base consists of 154 organisations from over 47 countries. Members include NGOs, independent research institutes, government entities, large civil society networks, universities, multilateral organisations, social enterprises and bilateral donors. This includes organisations working at grassroots levels (e.g., local civil society organisations working with vulnerable people directly), organisations working at the national level (e.g., national universities) and organisations working internationally (e.g., major global think tanks). Additionally, these organisations work across at least eleven sectoral areas under the broader umbrella of climate action – water, agriculture, finance, disaster risk management, social protection, education, capacity development, infrastructure, urban planning, weather and climate services, health, and ecosystems. With this highly diverse constituency, the Principles act as a cohesive set of 'values' that foster a common purpose.

Apart from this structural purpose, the Principles will also play a more functional role in the ARA by acting as a point of focus for the Alliance's tracking, learning and sharing agenda. Through periodic interactive workshops and co-produced knowledge outputs, members will voluntarily communicate the progress that their own initiatives are making in bringing these principles to life. This data will also support the exploration of the challenges that different types of organisations face in operationalising this vision and of innovative action research models to be emulated. Moreover, ARA's learning programme, sharply focussed on consolidating insights on successes, challenges and lessons learned on operationalising principles, will shed light on issues that need further attention and thought.

For instance, if ARA members struggle with instituting research processes that address structural inequities (principle #6) then this learning could act as an input into new programme development processes focussed on investing in initiatives aimed at overcoming that challenge. Similarly, any successful models for operationalising any or all of the Principles might form the foundation of new programmes aimed at diffusing these to contexts where they have not yet been applied. Additionally, exploring the process through



which ARA's members might be operationalising the Principles and the successes or challenges that they face will facilitate the development of smaller communities, practices or coalitions that work together to solve common problems or combine forces to jointly undertake action research initiatives together. In these ways, the Principles will catalyse learning and partnerships. They will form the foundation from which to make sense of and follow the ARA's progress in enhancing the uptake of action-oriented research. Ultimately, a core function of the Adaptation Research Alliance is the development of long-term action-oriented research programmes that deliver user-centred adaptation solutions and capacity building in the global South. The processes to track, learn and share member's progress in operationalising these Principles will directly support this key objective, while the Principles themselves will act as the norm or standard to which new action and research initiatives should align themselves.

66

... THE PRINCIPLES WILL CATALYSE LEARNING AND PARTNERSHIPS. THEY WILL FORM THE FOUNDATION FROM WHICH TO MAKE SENSE OF AND FOLLOW THE ARA'S PROGRESS IN ENHANCING THE UPTAKE OF ACTION-ORIENTED RESEARCH.



Photo credit: Mahila Housing Trust (MHT)





# 4

## Conclusion

In conclusion, it is important to note that these Principles are not set in stone. In line with the ARA's thrust on learning and iteration, they will be reviewed from time to time by the members of the Alliance. These reviews will lead to changes in their framing or explanations as well the reduction of principles deemed redundant or the addition of new principles that would enhance adaptation action and research. As such, these are a living and breathing set of values that will evolve over time. As mentioned in the preceding sections, a group of 110 ARA members from across the world have endorsed these Principles, committed to operationalising these through their work and to sharing insights on the processes of their application. The ARA invites all organisations working to manage climate risk, support processes of adaptation and build resilience to join this burgeoning committee of organisations and align with the Principles. This in turn will help promote a vision of action-oriented research that is needs-driven, transdisciplinary and co-produced with users to deliver societal impact, build capacity and address the structural inequities that underpin risk. This will help ensure that marginalised communities living in some of the world's most vulnerable contexts not only function but flourish despite the shocks and stresses from a changing climate.



# References

---

- Adger, W. N., & Vincent, K. (2005). Uncertainty in adaptive capacity. *Comptes Rendus Geoscience*, 337(4), 399–410.
- Adaptation at Scale in Semi-Arid Regions (ASSAR). (n.d.). *Home*. Retrieved from <http://www.assar.uct.ac.za/>
- Allen, K. M. (2006). Community-based disaster preparedness and climate adaptation: local capacity-building in the Philippines. *Disasters*, 30(1), 81–101.
- Alpízar, F., Bernedo Del Carpio, M., Ferraro, P.J. et al. (2019). The impacts of a capacity-building workshop in a randomized adaptation project. *Nature Climate Change*, 9, 587–591. <https://doi.org/10.1038/s41558-019-0536-3>
- Anik, S. I., & Khan, M. A. S. A. (2012). Climate change adaptation through local knowledge in the north eastern region of Bangladesh. Mitigation and adaptation strategies for global change, 17(8), 879–896.
- Araujo, A., Harvey, B., Huang, Y., Mclure, A., Owiti, Z., Rouhaud E., Roux, J., Vincent, K., and Visman, E., (2020). A Critical Reflection on Learning From the FCFA Programme. *Future Climate for Africa*
- Arora, A, Gogoi, E, Joy, D, Kumar, P, Luthra, R, Pal, U, Pervaiz, A, and Rumbaitis del Rio, C (2019) Bringing adaptive management to life: Insights from practice. *Action on Climate Today*, Delhi. <http://www.acclimatise.uk.com/wp-content/uploads/2018/02/ACT-Adaptive-management-Proof3-1.pdf>
- Audefroy, J. F., & Sánchez, B. N. C. (2017). Integrating local knowledge for climate change adaptation in Yucatán, Mexico. *International Journal of Sustainable Built Environment*, 6(1), 228–237.
- Blicharska, M., Smithers, R. J., Kuchler, M., Agrawal, G. K., Gutiérrez, J. M., Hassanali, A., ... & Mikusiński, G. (2017). Steps to overcome the North–South divide in research relevant to climate change policy and practice. *Nature Climate Change*, 7(1), 21–27.
- Bornmann, L. (2013). What is societal impact of research and how can it be assessed? A literature survey. *Journal of the American Society for Information Science and Technology*, 64(2), 217–233. <https://doi.org/10.1002/asi.22803>
- Bunce, A., & Ford, J. (2015). How is adaptation, resilience, and vulnerability research engaging with gender?. *Environmental Research Letters*, 10(12), 123003.
- Campos, I. S., Alves, F. M., Dinis, J., Truninger, M., Vizinho, A., & Penha-Lopes, G. (2016). Climate adaptation, transitions, and socially innovative action-research approaches. *Ecology and Society*, 21(1).
- Carter, S, Steynor, A, Vincent, K, Visman, E, and Waagsaether, K. (2019) 'Co-production of African weather and climate services'. Second edition. Manual, Cape Town, *Future Climate for Africa and Weather and Climate*
- Clements, R., Viswanathan, K. R., & Sogani, R. (2016). How do Gender Approaches improve Climate Compatible Development? Lessons from India (No. id: 11355).
- Climate-ADAPT. *How to factor in uncertainty?*. Retrieved from *How to factor in uncertainty? – Climate-ADAPT (europa.eu)*
- Cuevas, S.C., Peterson, A., Robinson, C. et al. (2016). Institutional capacity for long-term climate change adaptation: evidence from land use planning in Albay, Philippines. *Regional Environmental Change*, 16, 2045–2058. <https://doi.org/10.1007/s10113-015-0909-8>
- Dagnet, Y., Northrop, E., & Tirpak, D. (2015). How to strengthen the institutional architecture for capacity building to support the post-2020 climate regime. *World Resources Institute*, Washington DC
- EcoLogic. (2021). What We Do: Action Areas | Capacity-Building | EcoLogic Development Fund. EcoLogic. <https://www.ecologic.org/what-we-do/actions/capacity-building>



- Eriksen, S., Schipper, E. L. F., Scoville-Simonds, M., Vincent, K., Adam, H. N., Brooks, N., ... & West, J. J. (2021). Adaptation interventions and their effect on vulnerability in developing countries: Help, hindrance or irrelevance?. *World Development*, 141, 105-383. <https://doi.org/10.1016/j.worlddev.2020.105383>.
- Ernø-Kjølhed, E., & Hansson, F. (2011). Measuring research performance during a changing relationship between science and society. *Research Evaluation*, 20(2), 130-142. <https://doi.org/10.3152/095820211X12941371876544>
- Gajjar, S.P., Hofemeier, A., Rokitzki, M., and Richards, C. (2021) ARA Evidence Review: Good Practices For Adaptation Action Research. ARA-Evidence-Review-2-Version-1-November-2021.pdf (southsouthnorth.org)
- GEAG, PACS, SKBVP, Jan Kalyan Sansthan. (2016, February). *Project Completion report of Flood resilient livelihood system with a special focus on women farmers*. Retrieved from 73442544.pdf (geagindia.org)
- German, L., Tiani, A.M., Daoudi, A., Maravanyika, T. M., Chuma, E., Jum, C., Nemarundwe, N., Ontita, E. & Yitamben, G. (2012). The Application of Participatory Action Research to Climate Change Adaptation in Africa: A Reference Guide. <https://www.cifor.org/knowledge/publication/4036/> (accessed 26 November 2021).
- Gogoi, E, Bahadur, A, Rumbaitis del Rio, C (2017) Mainstreaming adaptation to climate change within governance systems in South Asia: An analytical framework and examples from practice. Action on Climate Today, Delhi. [http://www.acclimatise.uk.com/wp-content/uploads/2018/02/OPM\\_ACT\\_LP\\_Governance\\_Paper\\_final.pdf](http://www.acclimatise.uk.com/wp-content/uploads/2018/02/OPM_ACT_LP_Governance_Paper_final.pdf)
- Haasnoot, M., Kwakkel, J. H., Walker, W. E., & Ter Maat, J. (2013). Dynamic adaptive policy pathways: A method for crafting robust decisions for a deeply uncertain world. *Global environmental change*, 23(2), 485-498. <https://doi.org/10.1016/j.gloenvcha.2012.12.006>
- Information Services for Africa. Weather and Climate Information Services for Africa and Future Climate for Africa, <https://futureclimateafrica.org/coproduction-manual>
- Khodyakov, D., Stockdale, S., Jones, A., Mango, J., Jones, F., & Lizaola, E. (2013). On measuring community participation in research. *Health education & behavior: the official publication of the Society for Public Health Education*, 40(3), 346-354. <https://doi.org/10.1177/1090198112459050>
- Knapp, C. N., Reid, R. S., Fernández-Giménez, M. E., Klein, J. A., & Galvin, K. A. (2019). Placing Transdisciplinarity in Context: A Review of Approaches to Connect Scholars, Society and Action. *Sustainability*, 11(18), 4899. <https://doi.org/10.3390/su11184899>
- Knutti, R. (2019). Closing the knowledge-action gap in climate change. *One Earth*, 1(1), 21-23.
- Koehler, B., & Koontz, T. M. (2008). Citizen participation in collaborative watershed partnerships. *Environmental management*, 41(2), 143-154.
- Lahsen, M., Sanchez-Rodriguez, R., Lankao, P.R., Dube, P., Leemans, R., Gaffney, O., Mirza, M., Pinho, P., Osman-Elasha, B., Stafford, S. (2010) Impacts, adaptation and vulnerability to global environmental change: challenges and pathways for an action-oriented research agenda for middle-income and low-income countries. *Current Opinion in Environmental Sustainability*, 2, 364-374. DOI 10.1016/j.cosust.2010.10.009
- Laws, Ed., and Valters C. (2021) Value for money and adaptive programming: Approaches, measures and management. Working Paper 572. ODI, London. [odi-lm-rethinkingvfm-wp572-final.pdf](https://odi-lm-rethinkingvfm-wp572-final.pdf)
- Lovell, E, Bahadur, A, Tanner, T and Morsi, H (2016). Resilience: The Big Picture. ODI, London. <https://cdn.odi.org/media/documents/10626.pdf>
- McGregor, S. L. (2004). The nature of transdisciplinary research and practice. Kappa Omicron Nu human sciences working paper series.
- Mcleod, E., Arora-Jonsson, S., Masuda, Y. J., Bruton-Adams, M., Emaurois, C. O., Gorong, B., ... & Whitford, L. (2018). Raising the voices of Pacific Island women to inform climate adaptation policies. *Marine policy*, 93, 178-185.

- Mekonnen, Z., Kidemu, M., Abebe, H., Semere, M., Gebreyesus, M., Worku, A., ... & Chernet, A. (2021). Traditional knowledge and institutions for sustainable climate change adaptation in Ethiopia. *Current Research in Environmental Sustainability*, 3, 100080.
- Mohiuddin, A. and Atiq, R. (2011) *The stimulating role of NGOs in Bangladesh*. Retrieved from: II-1-2.pdf (coastalcooperation.net)
- Morrissey, J. (2000). Indicators of citizen participation: lessons from learning teams in rural EZ/EC communities. *Community Development Journal*, 35(1), 59–74
- Mulligan, J., & Harper, J. (2016). Building Urban Resilience–Integrating Community Perspectives. Final Report. 2015–2016 (p. 92). Kounkuey Design Initiative.
- Mulligan, J., Harper, J., & Ngobi, B. (2015). Consultation and data collection methodology for the Building Urban Flood Resilience in Kibera Project. <https://planadapt.sharepoint.com/sites/SSNHeadARASecretariat21-22/Content/Evidence%20Review%20Action%20Research/Examples%20material/Koukuey%20Design%20Initiative/KDI%20Urban%20Flooding%20Consultation%20and%20Data%20Collection%20Methodology%20REV01.pdf?CT=1634131751148&OR=ItemsView>
- Murray, V., G. McBean, M. Bhatt, S. Borsch, T.S. Cheong, W.F. Erian, S. Llosa, F. Nadim, M. Nunez, R. Oyun, and A.G. Suarez. (2012). Case studies. In: Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley (eds.)]. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change (IPCC). Cambridge University Press, Cambridge, UK, and New York, NY, USA, pp. 487–542.
- Nyong, A., Adesina, F., & Elasha, B. O. (2007). The value of indigenous knowledge in climate change mitigation and adaptation strategies in the African Sahel. *Mitigation and Adaptation strategies for global Change*, 12(5), 787–797.
- Overland, I., & Sovacool, B. K. (2020). The misallocation of climate research funding. *Energy Research & Social Science*, 62, 101349.
- Polk, M. (2015). Transdisciplinary co-production: Designing and testing a transdisciplinary research framework for societal problem solving. *Futures*, 65, 110–122.
- Ranger, N (2013) Topic guide. Adaptation: decision making under uncertainty. Evidence on Demand, UK. See [http://dx.doi.org/10.12774/eod\\_tg02.june2013.ranger](http://dx.doi.org/10.12774/eod_tg02.june2013.ranger)
- Reid, H, Chambwera, M, & Murray, L (2013). Tried and tested: Learning from farmers on adaptation to climate change. gatekeeper. IIED, London. [https://www.jstor.org/stable/resrep01375?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/resrep01375?seq=1#metadata_info_tab_contents)
- Rokitzki, M., Hofemeier, A. (2021). Unleashing the Potential of Capacity Development for Climate Action – Fixing a Broken Link on the Pathway to Transformational Change. Available online at [www.adaptationcommunity.net/](http://www.adaptationcommunity.net/) <https://publikationen.giz.de/esearch/browse.tt.html> and [www.plan-adapt.org](http://www.plan-adapt.org)
- Ross, H., Shaw, S., Rissik, D., Cliffe, N., Chapman, S., Hounsell, V. & Schoeman, J. (2015). A participatory systems approach to understanding climate adaptation needs. *Climatic Change*, 129(1), 27–42.
- Schäfer, L., Jorks., P., Seck, E., Koulibaly, O., and Aliou, D. (2021, January) *Slow-onset Processes and Resulting Loss and Damage – An introduction*. Slow-onset Processes and Resulting Loss and Damage – An introduction (germanwatch.org)
- Shi, L., Chu, E., Anguelovski, I., Aylett, A., Debats, J., Goh, K., ... & VanDeveer, S. D. (2016). Roadmap towards justice in urban climate adaptation research. *Nature Climate Change*, 6(2), 131–137. <https://doi.org/10.1038/nclimate2841>
- Smit, B., and Wandel, J., (2006). Adaptation, adaptive capacity and vulnerability. *Global Environmental Change*, 16(3), 282–292. <https://doi.org/10.1016/j.gloenvcha.2006.03.008>

- Soanes, M, Bahadur, A, Shakya, C, Smith, B, Patel, S, Rumbaitis del Rio, C, Cogger, T, Dinshaw, A, Patel, S, Huq, S and Musa M, Rahman, F, Gupta, S, Dolcemascolo, G and Mann, T (2021) Principles for locally led adaptation: A call to action. IIED, London. <http://pubs.iied.org/10211IIED>
- Storbjörk, S., and Hedrén, J. (2011). Institutional capacity-building for targeting sea-level rise in the climate adaptation of Swedish coastal zone management. Lessons from Coastby". *Ocean and Coastal Management*, 54(3), 265–273. DOI:10.1016/j.ocecoaman.2010.12.007
- Tanner, T Mazingi, L and Muyambwa, D (2021). Adolescent Girls In The Climate Crisis. Plan International, UK. [https://eprints.soas.ac.uk/35968/1/Tanner%20et%20al%202021%20FPAR%20GirlsReport\\_Technical%20WP.pdf](https://eprints.soas.ac.uk/35968/1/Tanner%20et%20al%202021%20FPAR%20GirlsReport_Technical%20WP.pdf)
- The British Academy. (n.d.) *Knowledge Frontiers: International Interdisciplinary Research 2022*. Retrieved from Knowledge Frontiers: International Interdisciplinary Research 2022 | The British Academy
- Tschakert, P. (2012). From impacts to embodied experiences: tracing political ecology in climate change research. *Geografisk Tidsskrift-Danish Journal of Geography*, 112(2), 144-158. <https://doi.org/10.1080/00167223.2012.741889>
- Tutty, L. & Rothery, M. (2010). Needs assessments. In *The handbook of social work research methods* (pp. 149-162). SAGE Publications, Inc., <https://www.doi.org/10.4135/9781544364902> UKRI (2020) *What we do: our vision and mission*. Retrieved from What we do – UKRI
- UNFCCC (2020) Policy Brief: Technologies for Averting, Minimizing and Addressing Loss and Damage in Coastal Zones. UNFCCC, Bonn. 3863c9fabdf74ea49710189acbf6907a. pdf (unfccc.int)
- Van Buuren, A., Eshuis, J., & Van Vliet, M. (Eds.). (2014). Action research for climate change adaptation: Developing and applying knowledge for governance. Routledge.
- Vincent, K. (2021). Redefining ‘business as usual’ with a gender lens. Weather and Climate Information Services for Africa
- Wickson, F., Carew, A. L., & Russell, A. W. (2006). Transdisciplinary research: characteristics, quandaries and quality. *Futures*, 38(9), 1046–1059.
- Willows, R.I. and Connell, R.K. (Eds.). (2003). Climate adaptation: Risk, uncertainty and decision-making. UKCIP Technical Report. UKCIP, Oxford





# THE ADAPTATION RESEARCH FOR IMPACT PRINCIPLES

## Authors:

Nora Nisi and Aditya V. Bahadur with input from Julio Araujo, Suzanne Carter, Anand Patwardhan, Rosalind West, Jesse DiMaria-Kinney, Sydney Church and members of the Adaptation Research Alliance (ARA).

October 2022



The International Institute for Environment and Development (IIED) promotes sustainable development, linking local priorities to global challenges. We support some of the world's most vulnerable people to strengthen their voice in decision making.

[www.iied.org](http://www.iied.org)

For more information on the Adaptation Research Alliance (ARA) please visit:



[www.adaptationresearchalliance.org](http://www.adaptationresearchalliance.org)



[ara@southsouthnorth.org](mailto:ara@southsouthnorth.org)



[@Adapt\\_Alliance](https://twitter.com/Adapt_Alliance)



[Adaptation Research Alliance](https://www.linkedin.com/company/adaptation-research-alliance)

Photo credit: Annie Pratt via Unsplash

This document is an output from a project led by the Adaptation Research Alliance (ARA), primarily funded by the UK Government's Foreign Commonwealth and Development Office (FCDO) for the advancement of research for impact for adaptation to climate change. However, the views expressed and information contained in it are not necessarily those of, or endorsed by the ARA or FCDO, which can accept no responsibility for such views or information or for any reliance placed on them. This publication has been prepared for general guidance on matters of interest only, and does not constitute professional advice. You should not act upon the information contained in this publication without obtaining specific professional advice.

No representation or warranty (express or implied) is given as to the accuracy or completeness of the information contained in this publication, and, to the extent permitted by law, the ARA's members, UK FCDO, their advisors and the authors and distributors of this publication do not accept or assume any liability, responsibility or duty of care for any consequences of you or anyone else acting, or refraining to act, in reliance on the information contained in this publication or for any decision based on it.

Copyright © 2022, Adaption Research Alliance. All rights reserved.