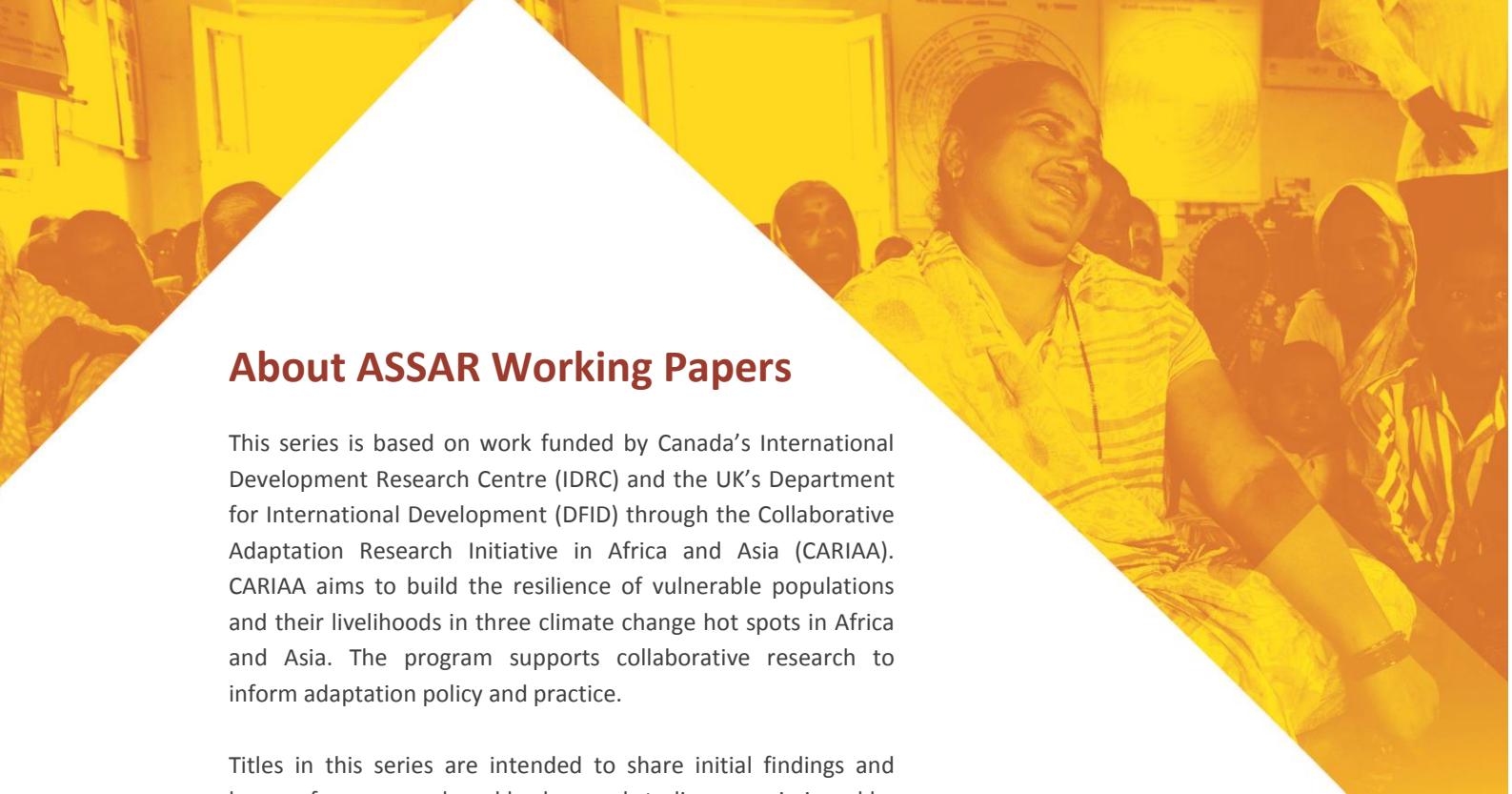
Climate Change Adaptation Practice in Semi-Arid Regions: Views and Insights by Practitioners

CARIAA
Collaborative Adaptation Research Initiative in Africa and Asia

ASSAR
Adaptation at Scale in Semi-Arid Regions



About ASSAR Working Papers

This series is based on work funded by Canada's International Development Research Centre (IDRC) and the UK's Department for International Development (DFID) through the Collaborative Adaptation Research Initiative in Africa and Asia (CARIAA). CARIAA aims to build the resilience of vulnerable populations and their livelihoods in three climate change hot spots in Africa and Asia. The program supports collaborative research to inform adaptation policy and practice.

Titles in this series are intended to share initial findings and lessons from research and background studies commissioned by the program. Papers are intended to foster exchange and dialogue within science and policy circles concerned with climate change adaptation in vulnerability hotspots. As an interim output of the CARIAA program, they have not undergone an external review process. Opinions stated are those of the author(s) and do not necessarily reflect the policies or opinions of IDRC, DFID, or partners. Feedback is welcomed as a means to strengthen these works: some may later be revised for peer-reviewed publication.

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Climate Change Adaptation Practice in Semi-Arid Regions: Views and Insights by Practitioners

This paper was written by Martin Rokitzki and Daniel Morchain, Global Advisors for Climate Change Adaptation in Oxfam GB, in collaboration with the weADAPT team of the Stockholm Environment Institute (SEI), Dr. Sukaina Bharwani and Anneli Sundin, who facilitated the online survey on weADAPT.org.

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CHAPTER 1

Scope and Methodology

Scope and Methodology

The Research into Use (RiU) element of the research project Adaptation at Scale in Semi-Arid Regions (ASSAR)[1] aims to ensure that ASSAR's research outputs and findings are taken-up in adaptation practice and policy spheres across semi-arid regions. For that purpose, the ASSAR consortia is keen to engage with practitioners early in the research process to reflect their views in the research design and in the definition of research questions. It is recognised that this step is key to enhance the likelihood of research up-take and creates interest and ownership in the research process by practitioners.

In order to solicit views and insights by climate change adaptation practitioners, Oxfam GB, one of ASSAR's consortia lead partners, collaborated with one of the leading knowledge platforms for adaptation practitioners, weADAPT[2]. Oxfam GB and weADAPT devised a short online survey (see annex 1) with questions focused on a) **information needs** (type and usefulness) **and sources** used (frequency and ease of access); b) **barriers to implementation of adaptation actions** and c) **additional insights** in the realities of implementing adaptation projects, programmes and strategies.

The survey findings have been analysed by taking into account the professional sector/ type of organisation and institution the respondents indicated. For this purpose, the findings have been divided into three categories: (1) total = all respondents; (2) practitioners[3] and (3) researchers. This has been done to explore whether there is significant difference in information needs, information sources and perceived barriers to implementation between practitioners and researchers.

Strong efforts were made to target climate change adaptation (CCA) practitioners working specifically in semi-arid regions in order to maximise relevance to ASSAR's research agenda[4].

This report elaborates recommendations aimed at ASSAR's Regional Research Teams (RRT) as they enter the transition between the Regional Diagnostic Studies (RDS) and the Regional Research Programmes(RRP), and as such, recommendations hope to influence the design and refining of research questions. The Oxfam team is committed to supporting the RRTs in this transition process by offering them tailored support.

[1] Funded by IDRC and DFID, and implemented by a consortium of five core partners: The University of Cape Town, the University of East Anglia, START, Oxfam GB and the Indian Institute for Human Settlements.: http://www.assar.uct.ac.za/
[2] https://weadapt.org/
[3] This category of 'implementers', i.e. of institutions that can turn knowledge and policy into action, is composed of respondents working for international NGOs, local NGO/community-based organisation and local/ sub-national government.
[4] This includes efforts to reach out to networks such as the ones of ICARDA, ICRISAT, UNCCD and other regional/ national level networks.

CHAPTER 2

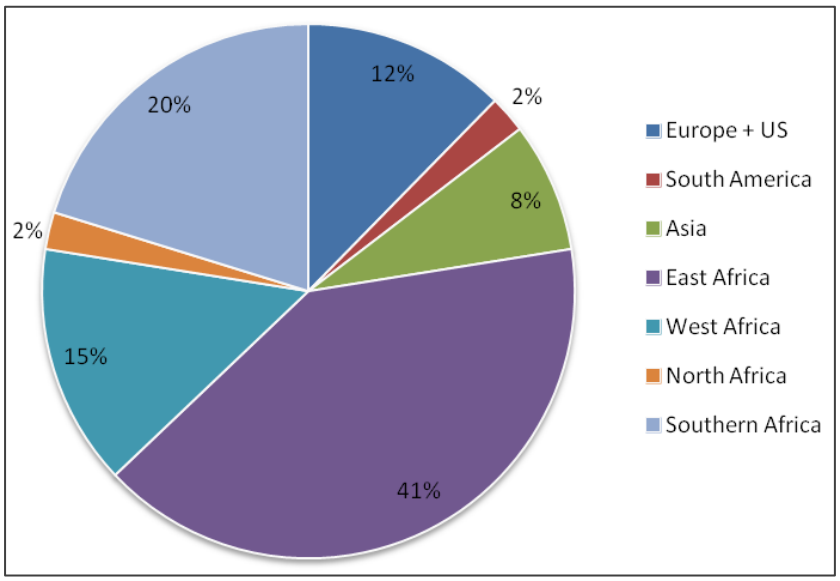
Findings and Discussion

Findings and Discussion

2.1 General Findings

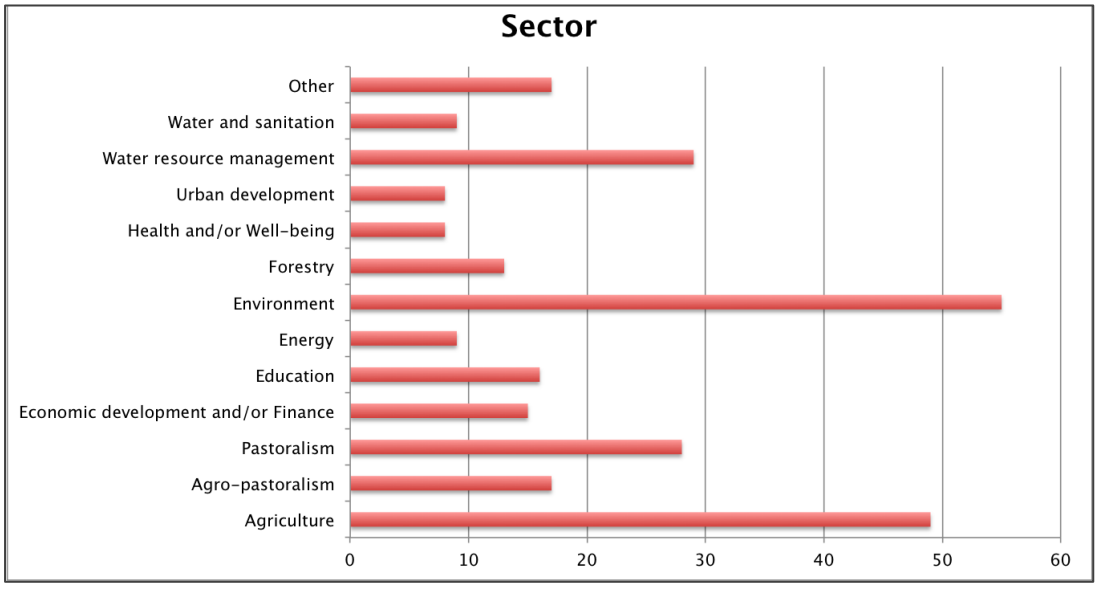
In total, the survey elicited 90 responses from people in 27 countries (see Figure 1), of which 36 are practitioners, 33 researchers and 21 others (including private sector, UN agencies, bilateral agencies).

Figure 1: Geographical distribution of respondents



The majority of respondents associate themselves with sectors such as agriculture, environment, water resource management and pastoralism (see Figure 2), which provides an idea about the 'adaptation practice space' in semi-arid regions.

Figure 2: Sectors that respondents work in



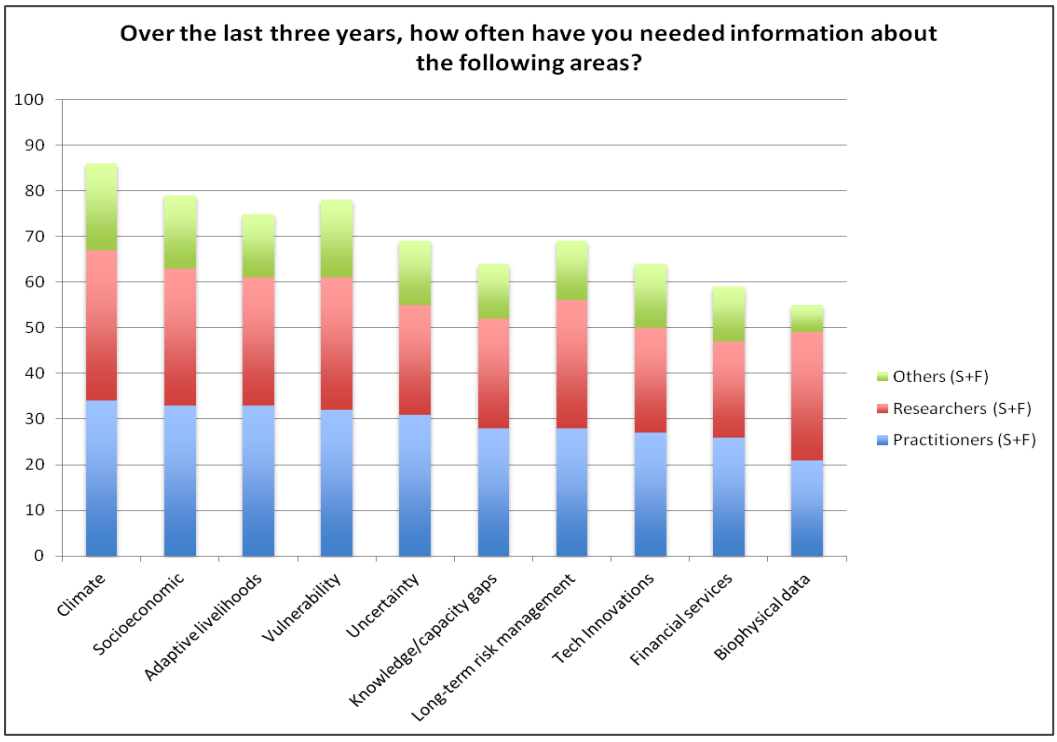
2.2 Information Needs and Gaps

The following section discusses the type and usefulness of information and the level of access and the frequency of access/ use by adaptation practitioners in semi-arid regions. The findings will inform the research-into-use agenda of ASSAR, in particular its communications and knowledge management strategy.

The survey findings confirm that, overall, adaptation practitioners are in need of a broad range of information.

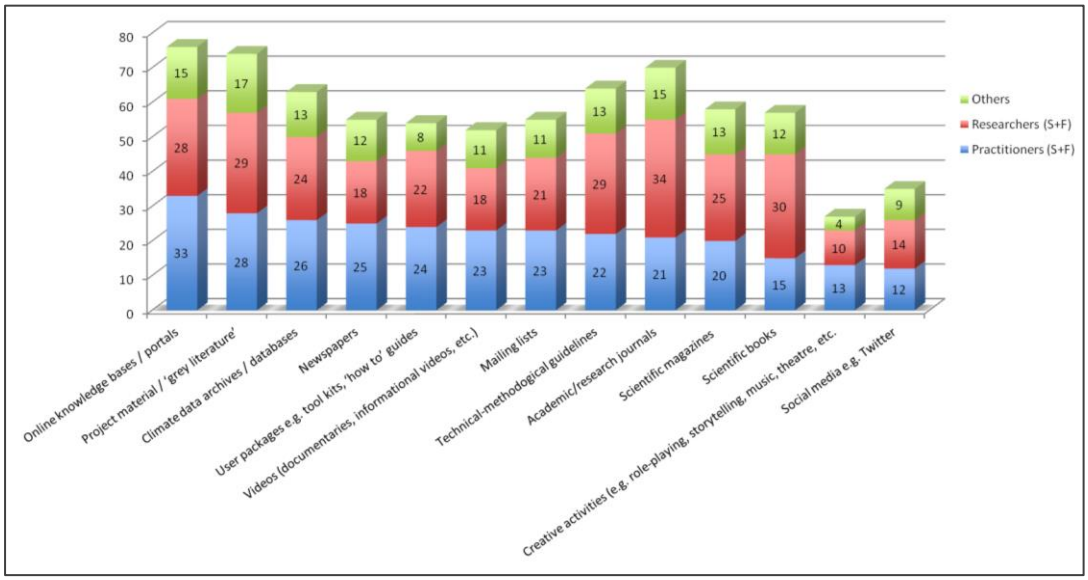
Figure 3 shows, despite multiple response options, no strong prioritisation or de-prioritisation of any kind of information. The breadth of information in demand by all groups (researchers, practitioners and others) suggests that there is capacity to understand and analyse the information obtained and that, furthermore, relevant information is obtained by these groups from each of the categories listed. Considering the complexity and multi-disciplinarity of the information in question, however, it remains to be explored, whether the way in which each group analyses the information obtained is accurate and appropriate. Making sense of multi-disciplinary data is a challenge that has often been raised in relation e.g. to risk and vulnerability assessments, which suggests, for our case at hand, that conducting analyses through multi-stakeholder processes is an important factor for extracting enough knowledge from the variety of information sources consulted and making it relevant to the set of stakeholders that ASSAR intends to impact.

Figure 3: Responses to survey question 2: What information do you look for? (S= sometimes, F=frequently)



Climate information is the type of information most under demand, as well as very accessible for all groups (see Figure 5). The second and third in highest demand are socioeconomic and vulnerability information, respectively. This suggests that one core pillar and entry point of good adaptation and development practice is a good understanding of climate information and the dynamics of climate change. Notwithstanding this, the findings also indicate that it is a combination of climate information with other sources of information: socio-economic aspects, livelihood and vulnerability that mainly shape the respondents' understanding of the 'adaptation question'. This is in line with the recognition that impacts of climate change are not always and not necessarily the key driver of vulnerability, but rather an aggravating factor.

Figure 4 Responses to survey question 3: Where and how often do you look for information? - How often do you obtain different information from: ...? (S= sometimes, F=frequently); total of ca. 80 respondents.



In terms of the information sources that adaptation **practitioners** refer to, respondents use a wide range of information sources while there is preference for online knowledge portals and 'grey' project related literature. **Researchers**, on the other hand, favour journal articles, scientific books and grey literature/project material, in that order.

It is interesting to highlight that at least two-thirds of all responding practitioners (see blue columns in Figure 4) claim to use 'scientific' information. That is higher than some other

reviews and studies have shown before5. Furthermore, more than 70% of practitioners seem to use 'raw' climate data derived from data archives and databases.

It was also found that despite an increasing trend to reach out through social media by (climate) information providers; this information source seems to be under-used by adaptation practitioners in semi-arid regions.

Although not offered as an alternative in the survey, several respondents stressed the point that the individuals, households and communities they work with, are some of the most important information sources. This underpins the finding that it is a combination of sources of information that shapes the understanding of the problem and the adaptation respondents, whether it is for practitioners, researchers, or the 'others'.

"The individuals, households and communities we work with are the best of all information sources!"[6]

When respondents were asked how easy it is to find the required types of information (Figure 5), the glass seems both half full and half empty. Without specifying the type of information, respondents have reported access as 'somewhat easy' or 'very easy' for just more than half of the information domains. While for the other half of information domains, it is considered 'difficult' or 'extremely difficult'. The domains that have been ranked among the more 'easily accessible' side, were 'climate information / scenario's, information on 'socio-economic impacts of climate change', 'drivers of vulnerabilities' and 'adaptive livelihoods'. Whereas 'access to finance/funding/financial services', 'long-term risk management', 'communicating uncertainty of climate information', 'analysis of knowledge and capacity gaps of key actors' were found to be 'difficult' to find. However, less than 10% of respondents considered access extremely difficult, no matter what information domain.

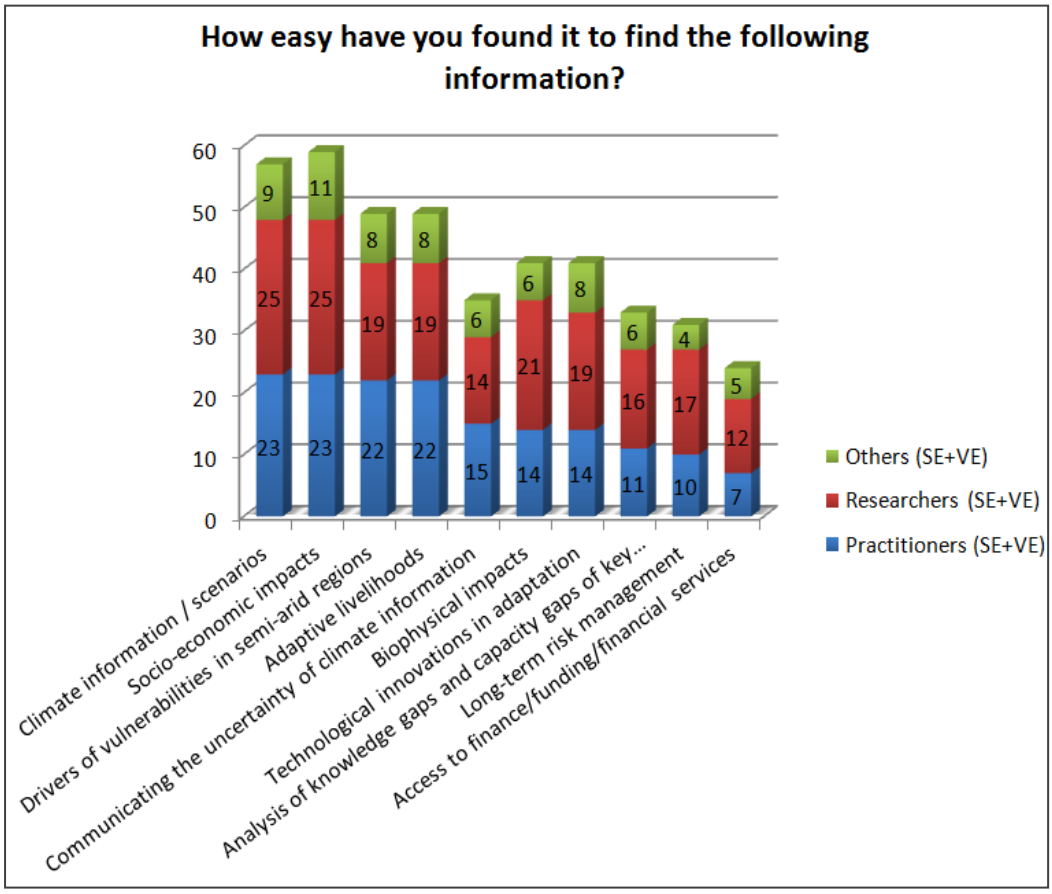
Accessibility of information remains an issue for a significant number of adaptation practitioners

As mentioned above, raw climate information and scenarios rank among the most easily accessible domain of information for adaptation practitioners. This suggests that these communication channels are well established. While the literature often highlights that downscaled data represents a bottleneck, it may be worthwhile to follow up with adaptation practitioners in semi-arid regions whether that is also a bottleneck for them.

[5] SciDev.Net Global Review (2012), p 78: 'Worryingly, the majority of NGO respondents (71%) reported that they or their organisation does not consume information related to S&T for development but there are marked regional differences.'

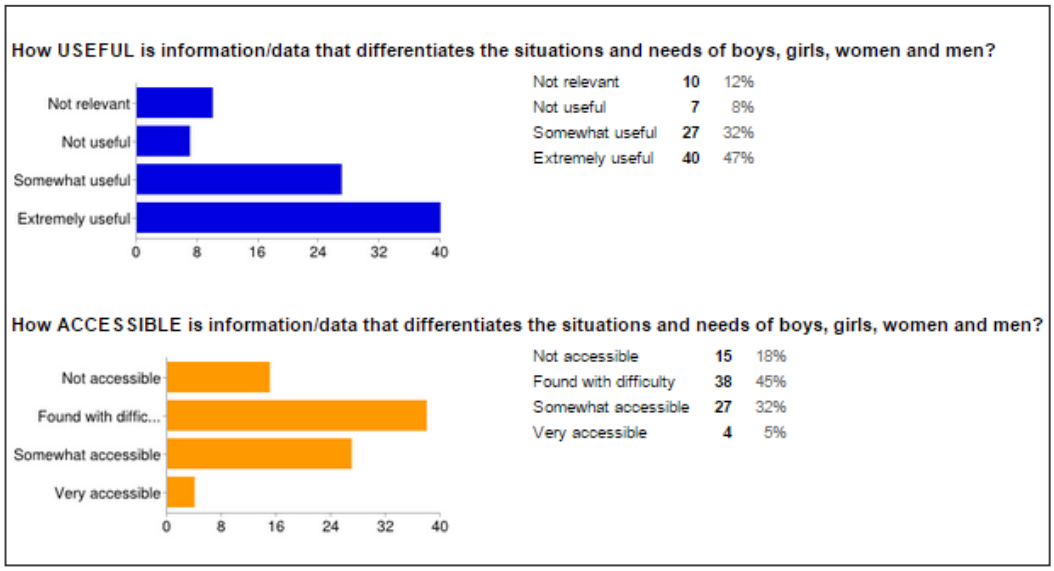
[6] Quote from response to open-ended question related to Q3

Figure 5 Responses to survey question 4: How easy is it to find it? - Over the last three years, how easy have you found it to find the following information...? (SE= somewhat easy, VE= very easy); total of ca. 80 respondents



Recognising the relevance of gender-specific data and information in a) understanding the differentiated vulnerability to climate change and b) identifying differentiated adaptation strategies, the survey focused one question on the usefulness and the accessibility of gender-specific data. While almost half of respondents considered gender differentiated data extremely useful, the other half, worryingly, considered it at best somewhat useful, not useful or not relevant. Furthermore, two-thirds of respondents found gender differentiated information either difficult to find or not accessible at all.

Figure 6 Responses to survey question 5: How USEFUL is information/data that differentiates the situations and needs of boys, girls, women and men? And How ACCESSIBLE is information/data that differentiates the situations and needs of boys, girls, women and men?



2.3 Barriers to Adaptation Actions and Insights into Adaptation Practice

The survey enquired about adaptation practice and implementation in semi-arid regions. Overall, it can be concluded that putting adaptation objectives into practice is a major challenge (see Figure 7). For some of the project phases (such as design and planning), almost 75% of all respondents have reported that they find them somewhat or extremely difficult. It may be suggested, then that all the groups of respondents are on a rather steep adaptation learning curve and that adaptation remains largely an experimental terrain. The responses also suggest that the information available and/or the capacity to analyse it and turn it into knowledge is insufficient to properly design an adaptation project.

Practitioners find it difficult to plan, implement, monitor and evaluate adaptation work

On the other hand, the options offered to answer this question as 'difficult or easy' may have been a suboptimal/insufficient choice, and it may have prevented a better analysis of the responses – e.g. if it had offered a range of difficulty or easiness.

Figure 7 Responses to survey question 7: How difficult do you find certain phases and aspects of the project cycle in adaptation work?

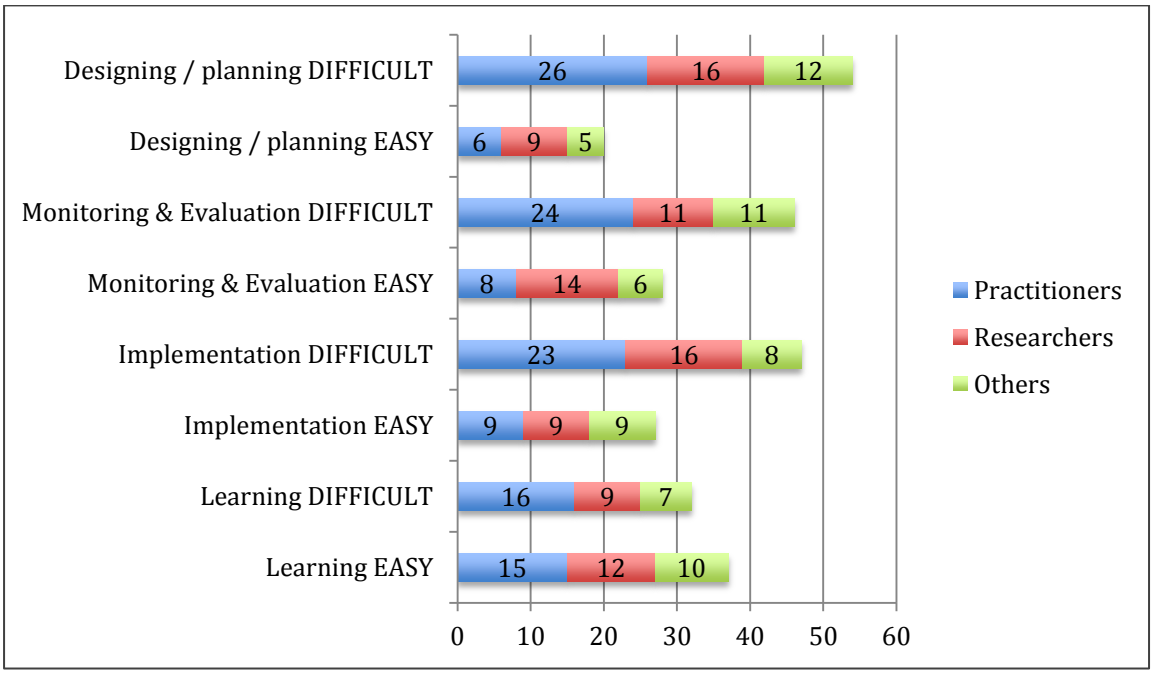
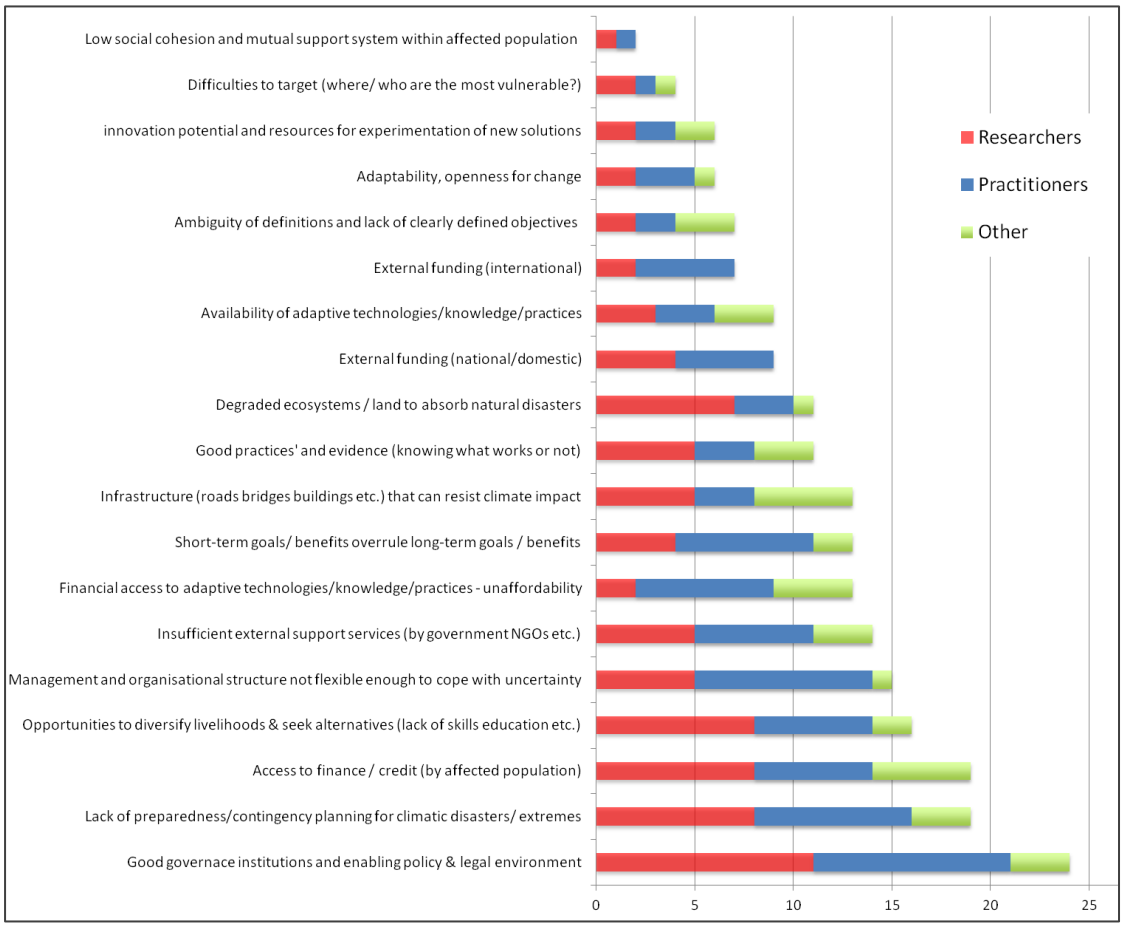


Figure 8 Responses to the survey question 6: What are the main obstacles to implementing adaptation actions in your country or region?; Total of 48 respondents



Respondents were also asked to rank barriers and obstacles for successful implementation of adaptation initiatives and actions in their respective countries and regions by selecting a maximum of five. The response options were derived from a short review of practice-oriented adaptation literature and views and insights among Oxfam's adaptation practitioners. Many of the barriers have been derived from frameworks and findings about what constitutes adaptive capacity. The barriers identified and offered as response options can be roughly divided into capacities, capabilities and conditions of (a) affected/ vulnerable population and (b) institutions, governance, services and system linkages.

The survey results reveal that barriers to implementing adaptation work are multifaceted; all response options were 'ticked' by respondents, yet no single barrier was mentioned by more than half of the respondents (see Figure 8). This is particularly noteworthy, in view of the fact that the same respondents consider implementation of adaptation actions overall as difficult. Given the breadth of perceived barriers, let alone potential interdependencies between barriers, the implementation of successful adaptation work is understood to be particularly challenging.

Whatever complexity and combination of barriers adaptation practitioners face, 'good governance, institutions and enabling policy & legal environment' clearly stands out as the barrier of highest significance; followed by two categories with the same number of

responses: 'lack of preparedness/ contingency planning for climatic disasters/ extremes' and 'access to finance/credit by affected populations'.

Poor, unequal governance and institutions are considered the number one barrier to effective adaptation

This is a clear call for focusing more on the systemic and governance issues related to adaptation in semi-arid regions, which is not surprising, considering that semi-arid lands have been politically marginalised in many countries and regions. In the context of ASSAR we believe this should be interpreted as a need for regional teams to develop a thorough understanding of the social, institutional and governance contexts and use this knowledge to inform the design of research questions.

With respect to barriers related to financial resources, it is interesting to see that access to financial services *by the affected population* is considered to be a much more relevant barrier to adaptation (ranked as 2nd) than actual access to funds at the national or international levels (12th and 14th respectively). While it is widely accepted that national and, even more, international funding for adaptation remains very important in boosting CCA work and furthering the adaptation agenda, the survey suggests that the bigger blockage re financing adaptation is making the available funding accessible to affected populations. This is further confirmed by the little weight given to the category 'availability of adaptive technologies/ knowledge/ practices' (ranked 13th), suggesting that access to users, not availability, is the underlying problem.

Disaster preparedness is an integral component of good adaptation

The other second highest ranked barrier refers to lack of preparedness for climate extremes. This can have two implications: first, lacking good preparedness and contingency planning can be a disincentive for adaptation, as extreme events repeatedly cancel longer term adaptation/ resilience building efforts and push people back to a previous state of vulnerability. Secondly, this raises a point about the appropriateness of doing CCA and DRR work separately, and it may suggest that integrated DRR/CCA work is crucial for long-term adaptation success in semi-arid regions.

Overall, views of practitioners and researchers seem to be relatively close. However, possibly important differences exist and are related to undue focus on short term goals, and rigidity of organisational structures to cope with uncertainty - both predominantly highlighted by practitioners. On the other hand, the category 'degraded ecosystems/ land to absorb natural disasters' was predominantly highlighted by researchers as a barrier to adaptation; though not by practitioners. This may reflect the lack of prioritisation by practitioners of biophysical data mentioned earlier. It might also suggest an insufficient capacity by practitioners to fully understand, assess and incorporate this type of information into e.g. adaptation strategies.

CHAPTER 3

Recommendations for ASSAR's Research Design

Recommendations for ASSAR's Research Design

This section aims to extract key messages from the analysis of the survey findings and use them to provide recommendations to ASSAR's regional research teams, as they take time to refine their research questions after having completed their Regional Diagnostic Studies (RDS). In the transition from RDS to Regional Research Programmes (RRP), we believe appropriate methods and sufficient time to conduct participatory stakeholder engagement processes that contribute to shaping and refining the research questions are fundamental in bridging the research-practice divide and in making the most of ASSAR's contribution to adaptation.

- Lack of good, participatory **governance, institutions and an enabling environment** is identified overwhelmingly as the main barrier to implementing an adaptation agenda (in a separate category, rigidity of institutions to cope with uncertainty ranks as an important barrier, too). Research programmes should, therefore, ensure they understand the nuances of power dynamics at country and regional levels to overcome governance shortcomings and inequalities. Research programmes should, likewise, ensure that research questions recognise these shortcomings as main barriers to adaptation, and hence these issues are researched, analysed and addressed as necessary as part of ASSAR's aim to bring change to adaptation policy and practice.
- **Designing, planning, M&E and implementation of adaptation** measures is considered by all actors to be difficult (when asked whether they are easy or difficult). This could suggest that there is significant **experimentation** and trial & error practice ongoing, as well as considerable **learning** potential, in the adaptation 'world'. This finding will demand from us that we recognise the need and exploit the freedom to be innovative, but also to pay special attention to collecting lessons from the processes implemented during the research – and analyse what has and has not worked and why.
- Further inquiry should be done to understand what kind of **climate information** adaptation practitioners need and use (and how they use it) in order to improve adaptation practice in semi-arid regions, particularly in view of the low quality and quantity of climate data in semi-arid regions. Also, though climate information is in most demand and accessible, further research is needed into how easy it is to use and apply, as well as how appropriately it is being analysed and introduced in strategies/ policies. There is the risk of incorrect interpretation and this is perhaps why there is increasing emphasis on 'climate services' in the adaptation arena.
- There is low demand for **biophysical data** by practitioners and 'others', yet high demand for climate information (least and most demanded, respectively). Re the former, this may be due to the difficulties of measuring or monitoring **ecosystem degradation** as well as recognition that it is hard to achieve a measurable,

significant improvement in the context of short project durations[7]. The fact that climate information is in high demand, on the other hand, suggests among other things that practitioners may be over-relying on climate/ climate change information and under-relying on environmental/ ecosystem integrity information. There is a risk that this divide could foster a misunderstanding of the vulnerability of affected populations and promote ineffective, unsustainable adaptation pathways. Therefore, understanding the use being given to climate information, improving science-practitioner collaborations in this field, and building a bridge between climate and biophysical information analysis are issues that could ideally be addressed by research programmes and questions. For example, one such question may be: How can data provision in this area be improved and made more user-friendly, user-accessible to overcome the possible neglect of this important area?

- Reflecting back on the survey design, we acknowledge that the **gender** aspect could have been explored further in the survey considering its relevance for achieving CCA. We wonder, in hindsight, how many respondents would have ticked a box in question 6 (Figure 8) describing 'insufficient inclusion of women in adaptation work', had it been listed. In any case, as mentioned above, the findings indicate that 'good governance, institutions and enabling environment' are the main barriers to implementing adaptation actions, which suggests that understanding the full potential of the role of women in CCA through a more equal enabling environment need to be explored further in ASSAR. This understanding will likely point us in the direction of most effective adaptation pathways. It also suggests a possibly large impact in addressing gender justice/ women's rights in order to release the full potential contribution of women to CCA.
- With respect to the more explicit inclusion of gender into regional programmes/ questions to inform ASSAR research, we should consider exploring the existing **barriers to women's participation** and the potential women have on implementing actions and achieving adaptation in semi-arid regions. This exploration will also entail ensuring there is recognition of women's input and potential in achieving adaptation goals (e.g. agricultural production, NRM, driving political agendas) and to explore the gender subject considerably beyond the availability of gender-differentiated data. Let us keep in mind that more than half of respondents consider gender differentiated data at best 'somewhat useful' (1 in 5 think it is not relevant/not useful), which indicates low awareness of stakeholders on the contribution women (can) make to CCA and, therefore, demands our inclusion of gender-related research questions to capture a larger scope of CCA objectives.
- While international & national **funding** remain crucial to pushing the adaptation agenda – and they are not identified as a major barrier to achieving adaptation

[7] In hindsight, we could have added a question in the survey on respondents' views on the main drivers of vulnerability, which would have further illustrated the findings from this question (no. 3).

goals (especially not international funding) – the survey finds that access to finance/ credit *by affected populations* is indeed a major barrier. This provides us with an opportunity to explore where the CCA related problems refer to one-and-the-same category, and where they reflect different structural shortcomings or inequalities. For example, we could consider worth exploring whether more of the available *external* funding should be used to develop & mostly promote systems that provide credit to affected populations; or, more generally speaking: we could explore the need for international adaptation players to revisit (i.e. rank higher) their prioritisation of financial services provided to local level in adaptation work.

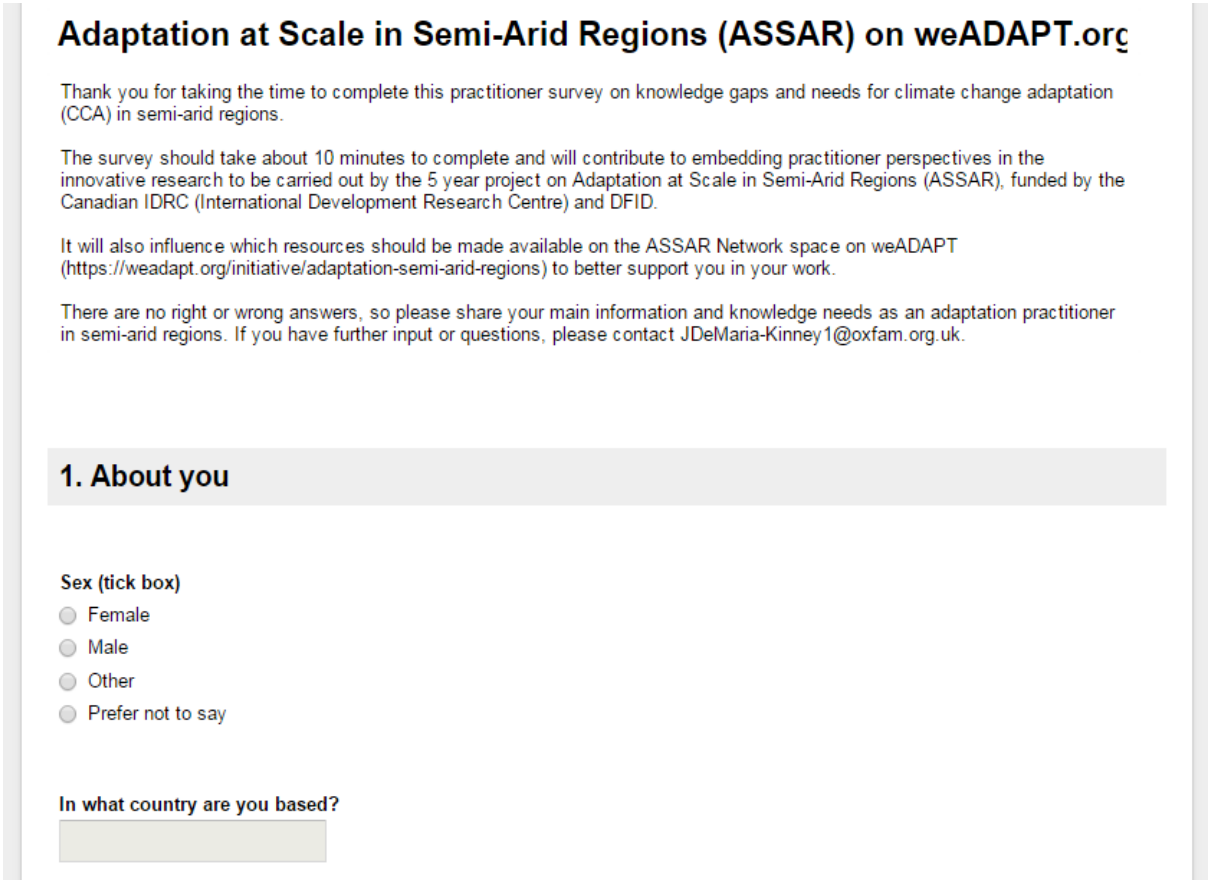
- The second most important barrier to adaptation was 'lack of preparedness/ contingency planning for climatic disasters/ extremes'. We should try to ensure we address both short and long term hazards in our research programmes, and promote an integrated approach to **DRR and CCA**.
- Low **social cohesion** was ranked as the least important barrier to adaptation. This is surprising considering how relevant social capital and networks are for community resilience. Research in ASSAR may consider validating/ challenging this finding and exploring to what extent it may be related to either (i) social cohesion being understood as high, or, instead (ii) social cohesion being understood to play a small role in adaptation.
- Strong multi-disciplinary approaches and skill sets, composition of planning and implementation teams are already required to unleash the potential of **multi-disciplinary information**. This aspect should be recognised and ideally addressed by research questions and communication of their findings, and furthermore it highlights the importance of ASSAR's component of building capacity of policy-makers, decision-makers and researchers to maximise research uptake.

CHAPTER 4

Annexes

Annexes

4.1 Online Survey Questions (accessible between 16 December 2014 and 9 February 2015)



Adaptation at Scale in Semi-Arid Regions (ASSAR) on weADAPT.org

Thank you for taking the time to complete this practitioner survey on knowledge gaps and needs for climate change adaptation (CCA) in semi-arid regions.

The survey should take about 10 minutes to complete and will contribute to embedding practitioner perspectives in the innovative research to be carried out by the 5 year project on Adaptation at Scale in Semi-Arid Regions (ASSAR), funded by the Canadian IDRC (International Development Research Centre) and DFID.

It will also influence which resources should be made available on the ASSAR Network space on weADAPT (https://weadapt.org/initiative/adaptation-semi-arid-regions) to better support you in your work.

There are no right or wrong answers, so please share your main information and knowledge needs as an adaptation practitioner in semi-arid regions. If you have further input or questions, please contact JDeMaria-Kinney1@oxfam.org.uk.

1. About you

Sex (tick box)

- Female
- Male
- Other
- Prefer not to say

In what country are you based?

Type of organisation

- ○ Academic/research institute
- ○ International NGO
- ○ Local/sub-national government
- ○ National government
- ○ Local NGO/community-based organisation
- ○ Private sector
- ○ UN Agency/bi-lateral agency
- ○ Other:

Sector (tick the top three most suitable)

- ☐ Agriculture
- ☐ Agro-pastoralism
- ☐ Pastoralism
- ☐ Economic development and/or Finance
- ☐ Education
- ☐ Energy
- ☐ Environment
- ☐ Forestry
- ☐ Health and/or Well-being
- ☐ Urban development
- ☐ Water resource management
- ☐ Water and sanitation
- ☐ Other:

2. What information do you look for?

Over the last three years, how often have you needed information about the following areas:

	Never	Rarely	Sometimes	Frequently
Climate information / scenarios	○	○	○	○
Biophysical impacts	○	○	○	○
Socio-economic impacts	○	○	○	○
Drivers of vulnerabilities in semi-arid regions	○	○	○	○
Communicating the uncertainty of climate information	○	○	○	○
Analysis of knowledge gaps and capacity gaps of key stakeholders	○	○	○	○
Adaptive livelihoods	○	○	○	○
Long-term risk management	○	○	○	○
Technological innovations in adaptation	○	○	○	○
Access to finance/funding/financial services	○	○	○	○

Other? What other type of information have you needed and how often?

3. Where and how often do you look for information?

How often do you obtain different information from:

	Never	Rarely	Sometimes	Frequently
Climate data archives / databases	○	○	○	○
Academic/research journals	○	○	○	○
Scientific books	○	○	○	○
Scientific magazines	○	○	○	○
Project material / 'grey literature'	○	○	○	○
Technical-methodogical guidelines	○	○	○	○
User packages e.g. tool kits, 'how to' guides	○	○	○	○
Videos (documentaries, informational videos, etc.)	○	○	○	○
Creative activities (e.g. role-playing, storytelling, music, theatre, etc.	○	○	○	○
Online knowledge bases / portals	○	○	○	○
Newspapers	○	○	○	○
Mailing lists	○	○	○	○
Social media e.g. Twitter	○	○	○	○

Other? What other sources have you used and how often?

4. How easy is it to find it?

Over the last three years, how easy have you found it to find the following information:

	Extremely difficult	Difficult	Somewhat easy	Very easy
Climate information / scenarios	○	○	○	○
Biophysical impacts	○	○	○	○
Socio-economic impacts	○	○	○	○
Drivers of vulnerabilities in semi-arid regions	○	○	○	○
Communicating the uncertainty of climate information	○	○	○	○
Analysis of knowledge gaps and capacity gaps of key stakeholders	○	○	○	○
Adaptive livelihoods	○	○	○	○
Technological innovations in adaptation	○	○	○	○
Long-term risk management	○	○	○	○
Access to finance/funding/financial services	○	○	○	○

Other? Have you needed any other type of information and how easy was it to find?

5. Gender specific data

How USEFUL is information/data that differentiates the situations and needs of boys, girls, women and men?

- [ ] Not relevant
- [ ] Not useful
- [ ] Somewhat useful
- [ ] Extremely useful

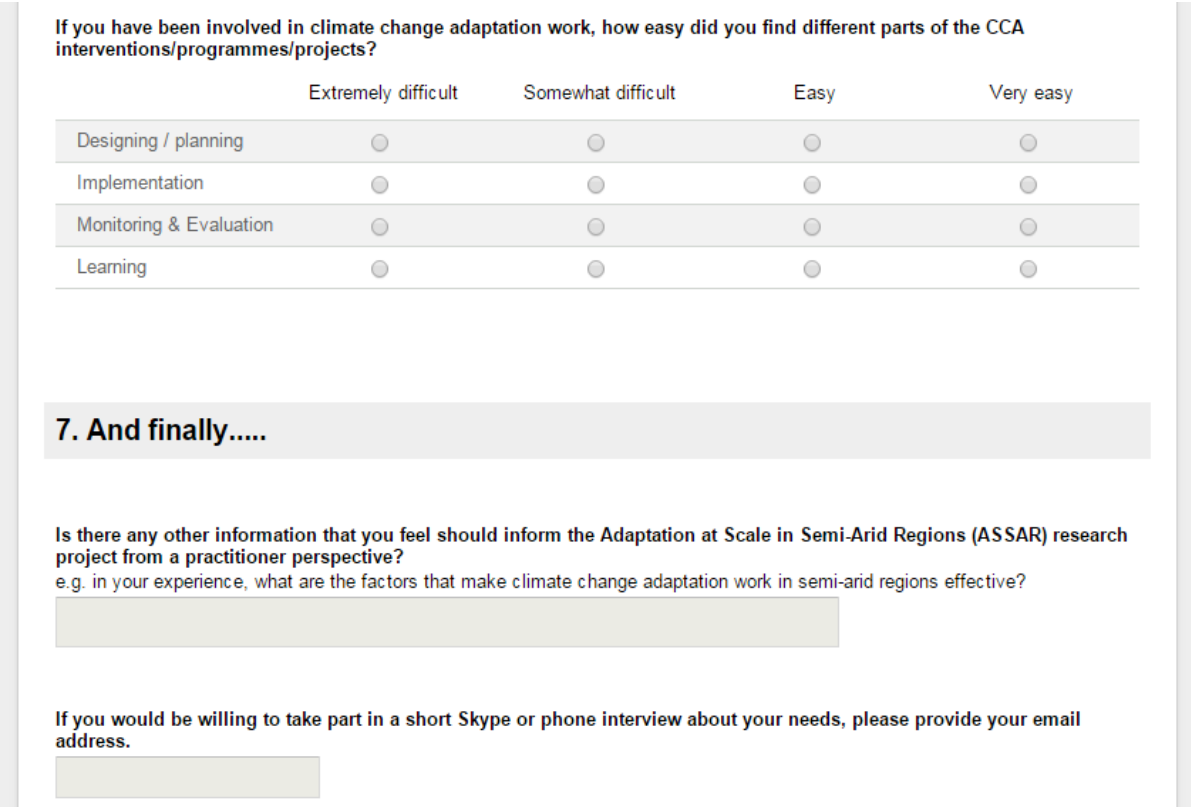
How ACCESSIBLE is information/data that differentiates the situations and needs of boys, girls, women and men?

- [ ] Not accessible
- [ ] Found with difficulty
- [ ] Somewhat accessible
- [ ] Very accessible

6. Barriers to implementation of adaptation actions

What are main obstacles to implementing adaptation projects in your country or region? (please select five of the most relevant)

- [ ] access to finance / credit (by affected population)
- [ ] external funding (national/domestic)
- [ ] external funding (international)
- [ ] financial access to adaptive technologies/knowledge/practices - 'unaffordability'
- [ ] management and organisational structure (including budgets) that are not flexible enough to cope with uncertainty
- [ ] infrastructure (roads, bridges, buildings etc.) that can resist climate impact (e.g. flood)
- [ ] good governance, institutions and enabling policy & legal environment
- [ ] insufficient external support services (by government, NGOs etc.)
- [ ] availability of adaptive technologies/knowledge/practices
- [ ] innovation potential and resources for experimentation of new solutions
- [ ] adaptability, openness for change, inertia of existing structures and mind sets (things need to be done differently in the future')
- [ ] 'good practices' and evidence (knowing what works or not)
- [ ] opportunities to diversify livelihoods & seek alternatives (lack of skills, education etc.)
- [ ] Lack of preparedness/contingency planning for climatic disasters/ extremes
- [ ] Short-term goals/ benefits overrule long-term goals / benefits
- [ ] Degraded ecosystems / land to absorb natural disasters
- [ ] Low social cohesion and mutual support system within affected population groups/ societies
- [ ] Difficulties to target (where/ who are the most vulnerable?)
- [ ] Ambiguity of definitions and lack of clearly defined objectives of adaptation interventions (e.g. weak logframe, weak outcome indicators)
- [ ] Other:



If you have been involved in climate change adaptation work, how easy did you find different parts of the CCA interventions/programmes/projects?

	Extremely difficult	Somewhat difficult	Easy	Very easy
Designing / planning	○	○	○	○
Implementation	○	○	○	○
Monitoring & Evaluation	○	○	○	○
Learning	○	○	○	○

7. And finally.....

Is there any other information that you feel should inform the Adaptation at Scale in Semi-Arid Regions (ASSAR) research project from a practitioner perspective?
e.g. in your experience, what are the factors that make climate change adaptation work in semi-arid regions effective?

If you would be willing to take part in a short Skype or phone interview about your needs, please provide your email address.

4.2 Unedited Comments and Insights by Adaptation Practitioners

The following section summarises written answers to open-ended questions (i.e. Q6 and Q7):

- Too many pilots – (economic) scaling-up necessary
- More risk-specific approaches are needed
- More coherence of adaptation frameworks at national, regional and international
- Vulnerability due to CC cannot/ should not be separated from other drivers of vulnerability in semi-arid regions
- For a large part of semi-arid regions, CC not the key driver of vulnerability
- Participation/involvement by communities throughout project cycle, (women's) empowerment, the need for inclusive strategies several times mentioned
- Need to integrate lessons learnt, not just replication of the same
- 'Long-term commitment to funding and supporting the process'
- Expression of powerlessness – limits of adaptation, adaptation to an ever-increasing threat by CC, particularly when thresholds are exceeded – another quote: 1. Low awareness levels 2. Low literacy levels 3. High incidences of vulnerability 4. Lack of political support/goodwill 5. Conservatism and ignorance 6.

Poor leadership and governance 7. Contradictory policies 8. lack of grassroots support and commitment

- ...'adaptation to climate change itself might not work' - Uncertainty and lack of (economic) data translate into inertia or lack of decision-making - The time horizon for adaptation decisions might not be sufficient and information available to make economic decisions is perhaps less reliable and insufficient.
- Information is maybe available, but hard to understand and to interpret
- Do not ignore indigenous coping mechanisms
- 'I just reviewed an article for a prominent journal which posited that reviving traditional risk-management strategies was "reversive", "paradoxical" and "anti development". Policies over the past few decades (up to a century in some countries) have been anti-development because they have not understood risk and risk management in the drylands. We have to understand that abandoning these policies is progress - not regress.'
- Good examples of good adaptation work but it is scattered and too small-scale and not scaled-up
- Research finding has most of the time remained with the elites of the society so need to disseminate the outcome/result of the study/research for validation and ownership.
- More general improvements are the first step: infrastructure (e.g. market places) , road access, access to education
- 'Readjustment of the government grant system in South Africa to encourage people to develop food security and educate their children rather than waiting for grants to be used for purchase of alcohol. So much money is wasted in arid South Africa - used to win votes rather than being used for long term goals such as education improvement, family planning, food and water security, skills training, solar water and energy systems ... At a national scale governments are using arid regions for energy mining (gas, uranium) rather than sustainable energy capture that would have lower risks of long term destruction of agricultural and cultural potential.'
- 'When you try to understand the intrinsic logic of local people in managing their natural resources'
- 'enough time to meet with affected people and design a programme that works for people and environment'
- 'lack of long-term and reliable data to inform decision-making at relevant community (vulnerable group)'
- 'Recording the results of different places of and sites'
- 'I think the link or de-link from other sectors make it hard to put up authoritative recommendations from research of this nature. It is also not automatic to get climate variability data from extremely remote locations.'

- Several times mentioned: Diversification in livelihood activities
- ‘not often "champions" in the community that have the time or inclination to take on CC issues, particularly as not that many tangible short term rewards.’
- ‘We need climate adaptation information, projections and potential solutions at the micro level in Malawi, Kenya, Assam, India that can be analyzed and applied to small local communities.’
- ‘There is a need for much greater networking and sharing amongst different initiatives and projects. Online databases / portals do not really facilitate this.’
- ‘- Do not set up new projects and programmes but support, strengthen and improve on-going activities, services, etc. - Only except long term involvement (plus 5 yrs). Shorter, is a waste of money. - Ensure that the right stakeholders are brought on board and not the well speaking people of well known INGO/NGOs who all know but little manage to practice. They are nowadays and unfortunately more bureaucratic than many National Governments. Watch out! - Involve business actors. Complex but it pays back.’
- ‘There is a lack of clarity within formal interventions about what adaptation is, what it is for, and how the intervention intends to support/achieve adaptation. The same is true for adaptive capacity, sustainability, and resilience. This makes intervention outcomes complex, variable, and not always predictable.’