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## Technical Report No. 6: Assessing the impact of AMMA-2050 through Key Informant Interviews with partnering decision-makers and scientists



*AMMA-2050 researchers and stakeholders at the annual meeting in Senegal 2019  
(Source, Mackay, B., 2019)*

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## Summary

To inform project development, support project and wider learning and meet project reporting requirements, AMMA-2050 has employed a Key Informant Interview (KII) scorecard. The KII scorecard combines qualitative and quantitative questions designed to baseline and monitor key areas of change over the course of the project, with sets of questions designed for both decision-makers and scientists or climate information providers. In answering quantitative questions, respondents were given four options: not at all (0), somewhat (1), partially (2) and completely (3). Scientists were asked to consider decision makers separately at national and sub-state level.

This report assesses findings from the use of a KII scorecard between 2016-2019. Focused on comparing baseline to endline, the report identifies key issues across the following areas of change:

### **Integration of climate information within decision making processes**

*Long-term resilience-focused policies, plans and investments using enhanced climate science.* AMMA-2050 has supported co-production and uptake of tailored climate information within the decision-making processes of focus, including the Projet d'Appui Scientifique aux processus de Plans Nationaux d'Adaptation (PAS-PNA) in Senegal and, in Ouagadougou, Burkina Faso, revision of the Grand Ouaga Plan, road development and commune development planning.

*Institutional decision-making platforms/mechanisms revised or created to embed climate information into institutional processes.* To ensure sustainability, AMMA-2050 has worked through established systems at national and sub-state levels, where these existed. While the project, has not been able to achieve systematic integration of climate information within decision-making processes, it has heightened recognition of this need. There are, for example, proposals to standardise integration of Intensity-Duration-Frequency curves within the Terms of Reference for infrastructural development commissioned by the Mayor of Ouagadougou's office, while representatives of the Senegalese National Assembly have highlighted the need for national agricultural planning to be reviewed in light of emerging understanding of future climate risks. Partnering research institutions have also recognised the need to strengthen stakeholder engagement, with ISRA and WASCAL committing to ensure dedicated institutional capacity for science-policy and training for researchers to effectively engage with decision-makers.

**Decision-makers' capacities to integrate climate information within decision-making.** From a baseline of 0, both decision-makers and scientists assessed that AMMA-2050 had partially (average rating '2') supported this capacity. While there remained a recognised need for greater engagement at national and sub-state levels, the project has 'sensitised decision-makers to climate change issues such that they are asking for specific products, such as IDF curves and flood maps'.

**The usefulness and perceived reliability of project tools, products and information.** From a baseline of 0, both decision-makers and researchers assessed that AMMA-2050 outputs as 'helpful' or 2, with scientists considering outputs as more helpful to national (average 2.3) than sub-state decision makers (average 2). While researchers assessed the reliability of AMMA-2050 products as 'partial' (or 2.1) for national decision-makers and 'somewhat' (or 1.3) for sub-state decision-makers, there appeared limited change in decision-makers' perceptions of the reliability of the information.

**Understanding the causes of uncertainty in climate information.** While scientists recognise the importance of decision makers understanding the causes of uncertainty in climate information, decision makers in Burkina Faso assessed their understanding of the levels of uncertainty continuing to be low at endline.

**Clear communication of the levels of confidence and range of uncertainty in climate information.** There are differences between decision makers and scientists in how clearly they assess that the levels of confidence and range of uncertainty in the climate information has been communicated. At endline, scientists assessed this on average as partial ('2'), while decision makers assessed this lower at somewhat ('1'), with decision-makers in Burkina Faso noting little change from baseline.

**Uncertainties in climate information preventing use.** From base- to endline, decision-makers increasingly considered that the uncertainties in climate information do not prevent them using it in their decision making, while scientists continued to see the uncertainties in the climate information as a constraint to use.

**Consideration of gender and inclusion.** Research in the pilots has strengthened understanding about the climate-related risks facing specific marginalised groups and the need for this to inform infrastructural development and adaptation strategies. While project findings have been able to inform city-level, (sub-state) regional and national decision-making processes, programme and project design has limited the resources available to address and seek to overcome the identified risks facing specific social groups. As one researcher noted, ‘we would have monitored impact on gender and inclusion differently if integrated in initial planning.’ (KIIIS04, 2019).

**Researcher capacities to produce decision-relevant climate information.** Almost all partnering researchers felt that engaging in AMMA-2050 had partially or completely improved their capacities to deliver research that can support responses to climate variability and change.

### **Implications of findings**

The report concludes with reflections on the use of the KII scorecard to support monitoring, evaluation and learning, as well as a series of key issues highlighted through analysis of KII scorecard responses. These include the need for:

- Strengthening decision-makers’ understanding of the uncertainties in climate information;
- Building scientists’ capacities to clearly communicate the confidence and range of uncertainties within the climate information they produce;
- Strengthening opportunities for researchers to work directly with specific groups of decision-makers, to better understand how best to support climate-resilient development;
- Supporting decision-makers’ capacities to effectively employ the tools and products that AMMA-2050 has developed;
- Increasing support for action or applied research, providing opportunities to take action on emerging research findings in partnership with decision makers and directly affected people;
- Deepening understanding about the impacts of climate-related risks amongst marginalised groups, including women, and working with these groups to identify acceptable adaptation pathways;
- Increasing understanding about the ways in which climate adaptation can best be supported through both formal and informal mechanisms and channels, and amongst the wide range of actors that need to be engaged; and
- Reviewing the most effective ways of baselining and monitoring key areas of change related to the co-production and integration of climate information within medium-term decision-making.

While some of the areas are partially addressed within the project extension to March 2021, these areas also require careful consideration within future investments in strengthening climate-resilience.

## **Acronyms**

AMMA-2050	African Monsoon Multi-Disciplinary Analysis-2050
CNCR	Conseil national de concertation et de coopération des ruraux
COMNACC	Comité Nationale du Changement Climatique - National Committee on Climate Change, Senegal
COMRECC	Comité Régionale du Changement Climatique – Regional Committee on Climate Change, Senegal
2iE	Institut International d'Ingénierie de l'Eau et de l'Environnement
HIW	High Impact Weather
IDF	Intensity - Duration - Frequency
ISRA	Institut Sénégalais de Recherches Agricoles
KII	Key Informant Interview
MUH	Ministere de l'Urbanisme et de l'Habitat – Ministry of Urbanism and Housing, Burkina Faso
PAS-PNA	Projet d'Appui Scientifique aux processus de Plans Nationaux d'Adaptation
REPES	Réseau des Parlementaires pour la Protection de l'Environnement au Sénégal
WASCAL	West African Science Service Centre on Climate Change and Adapted Land Use

# Assessing the impact of AMMA-2050 through Key Informant Interviews with partnering decision-makers and scientists

## 1.0 Introduction and methodology

Focusing on enhancing understanding about High Impact Weather (HIW) events to inform medium-term (5-50 year) decision making in West Africa, African Monsoon Multi-disciplinary Analysis-2050 (AMMA-2050) has undertaken two pilot studies to examine how tailored climate information can better support specific decision-making processes. In Burkina Faso, partners have been seeking to ensure that urban planning for the capital, Ouagadougou, is informed by climate-related flood risks. In Senegal partners have been seeking to strengthen climate-resilient agricultural research and practices. AMMA-2050 has employed a Key Informant Interview (KII) scorecard, combining qualitative and quantitative questions, to baseline and monitor key areas of change over the course of the project, with sets of questions designed for both decision-makers and scientists or climate information providers. In answering quantitative questions, respondents were given four options: not at all (0), somewhat (1), partially (2) and completely (3). Scientists were asked to consider decision makers separately at national and sub-state level.

The scorecard has been used to meet project reporting requirements, as well as to inform project activities and learning. Some of the questions (particularly those related to logframe requirements) have remained constant, others have been modified over the course of the project to seek greater clarity (for example, in regard to communication and understanding of uncertainties in climate information).

Ensuring consistency through interviewing the same key informant decision makers over the course of the project has been challenging, with project developments identifying additional stakeholders, post-holders changing and ensuring the availability of senior decision makers. This report thus focuses on the cohort of decision makers and scientists who undertook both baseline and endline scorecard interviews.

At baseline in 2016, scorecards were undertaken with twenty-four decision makers in Burkina Faso and Senegal, and twenty-one scientists across Burkina Faso, Senegal, France and the UK. At endline in 2019, scorecards were undertaken with twenty-four decision makers in Burkina Faso and Senegal and fourteen scientists across partnering institutions. Six decision makers in Burkina Faso and four in Senegal undertook scorecards at both base- and endline. An additional twelve key informants in Burkina Faso and two in Senegal were baselined in 2018 and re-interviewed in 2019, with findings informing this report. All researchers interviewed for the endline were previously interviewed for baseline, apart from one new addition. Interviews in Senegal were undertaken by an AMMA-2050 team, while the majority of those in Burkina Faso were undertaken by AMMA-2050 partner, 2iE.

In 2016, the project compiled a baseline through employing the KII scorecard (see Technical Note 2 <https://www.amma2050.org/sites/default/files/TR2-%20baseline%20from%20KII.pdf>) and drawing together sources from across partners and secondary sources (see Technical Note 3 <https://www.amma2050.org/sites/default/files/TR3-Summary%20baseline.pdf>). Questions in the baseline scorecard related to the prevailing general situation, while a number of questions in the endline (particularly related to capacity to integrate climate information in decision making and the usefulness of project information and products) related specifically to interviewees' assessment of AMMA-2050 initiatives. For example,

in regard to assessing organisational capacity to integrate climate information, the question at baseline was: 'Does your organisation have the capacity to use climate change information within decision-making?', while at endline interviewees were asked to consider 'Has engaging with AMMA-2050 helped you appreciate risks and integrate climate information within your decision making?'. For questions specifically related to the project, the baseline is assumed to be 0.

Comparing baseline to endline and tracking key indicators of change for the project, this report identifies and discusses findings from the KIIs in areas required to meet project reporting as well as to support project and wider learning. As such the report references findings relevant to programme logframe indicators, as well as assessing a number of additional areas of change that AMMA-2050 has sought to monitor.

## **2.1 Decision makers' capacity to appreciate climate risks and integrate climate information within decision-making**

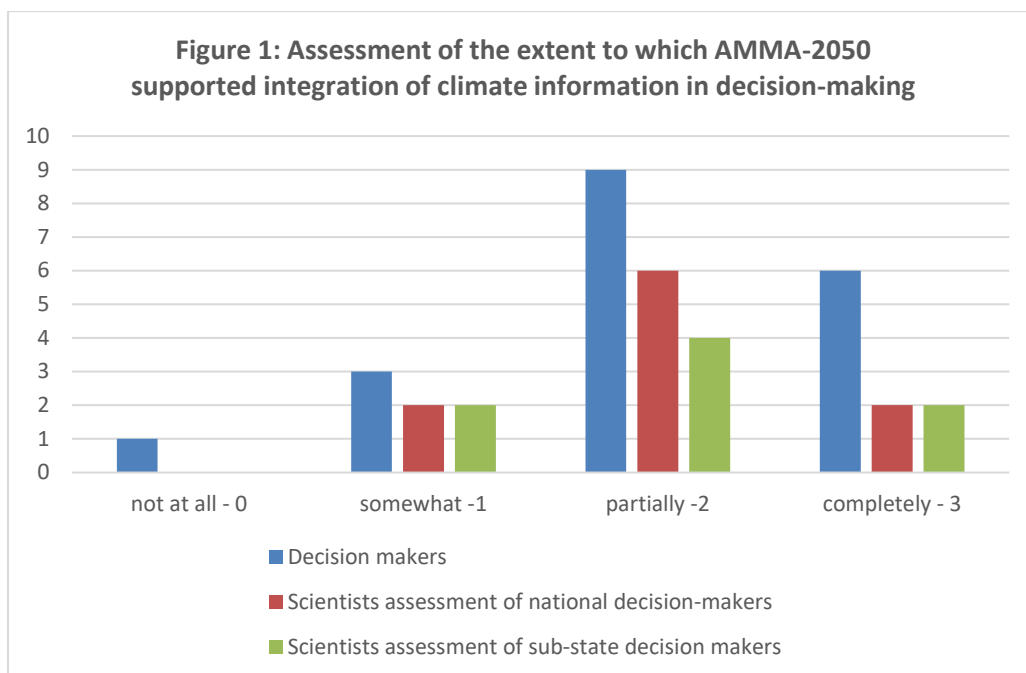
This area relates to Output indicator 2.3: Change in the perception of key users/institutions of their engagement (in terms of strengthening their capacities to integrate climate information in medium-term decision-making).

In the baseline, decision-makers were asked to assess the capacity of their organisation to use climate change information within decision-making, while scientists assessed separately national and sub-state decision-makers' capacity to use climate information in medium-term decision making. In 2016 decision makers assessed the capacity of their organisation to integrate climate information at 2.13, while decision-makers in Burkina Faso baselined in 2018 assessed organisational capacity at 1.4. In the 2016 baseline, scientists assessed national decision makers' capacity at 1.9, and local decision makers' capacity at 1.3, and national decision makers' capacity at 1.6, and local decision makers' capacity at 0.8 in 2018.

In 2019, decision makers and scientists were asked to assess the extent to which engaging with AMMA-2050 had supported decision-makers' capacity to integrate climate information. From a baseline of 0, both decision-makers and scientists assessed that AMMA-2050 had partially (average rating '2') supported this capacity.

While decision makers and researchers both recognised the need for greater and more sustained engagement at national and local level, it was identified that the project has raised 'understanding that climate change has already changed the frequency of intense storms' and 'sensitised decision-makers to climate change issues such that they are asking for specific products, such as IDF curves and flood maps' (KIIEU06, 2019). A number of key informants highlighted that there remains a need to strengthen decision-makers' understanding and confidence in using available climate information, products and tools. The project extension includes activities in this area.

Figure 1, below, illustrates decision makers' and scientists' endline assessment of the utility of project engagement in strengthening decision makers' capacities to integrate climate information in medium-term decision-making.



## 2.2 Usefulness of AMMA-2050 climate information, tools and products

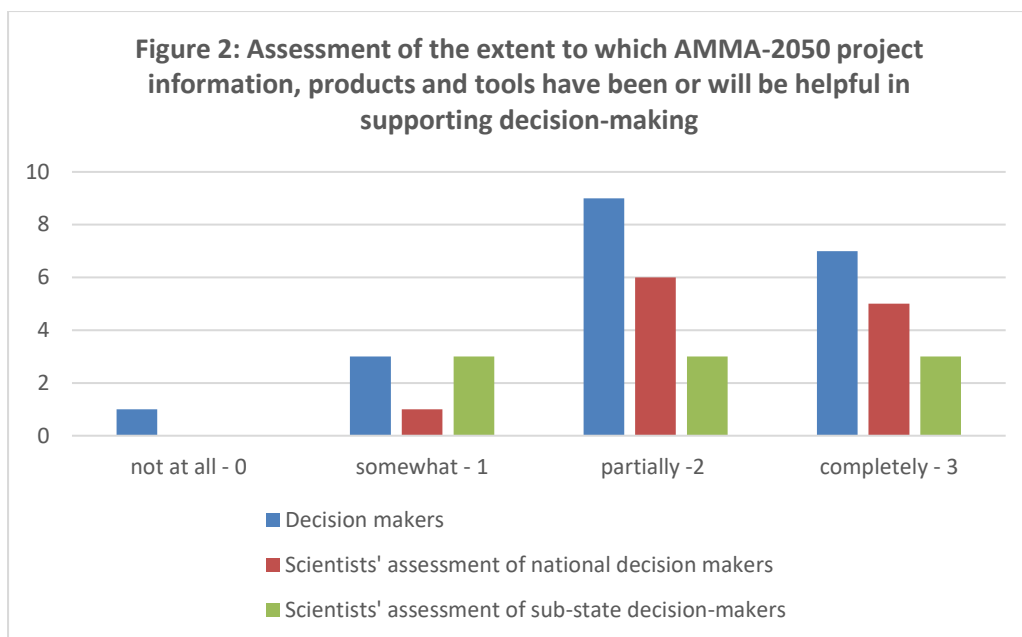
This area relates to Output indicator 3.3: Change in the perception of key users/institutions of the utility of information, products and tools for supporting decision-making for climate resilient development

At baseline, decision-makers assessed that they were somewhat to partially (average 1.75) able to access relevant climate change information, with considerable differences between Burkina Faso (average 1.4) and Senegal (average 2). Researchers assessed decision makers' access to relevant information as lower (1.6 for national decision makers and 0.9 for sub-state decision makers).

At endline, decision-makers and researchers were asked to assess how helpful project information, products and tools have been or will be in supporting decision-making. From a baseline of 0, both decision-makers and researchers assessed that AMMA-2050 outputs as 'helpful' or 2, with scientists considering outputs as more helpful to national (average 2.3) than sub-state decision makers (average 2).

Figure 2, below, illustrates decision makers' and scientists' endline assessment of the utility of project information, products and tools for supporting climate-resilient development decision-making.





*You managed to achieve more understanding in one workshop than I have managed to achieve in the 20 years I've been doing this job.' KIIS22, 2018.*

AMMA-2050 has also monitored decision-makers' perceptions of the reliability of climate information. Decision makers assessed the reliability of climate information to be 2.1 in 2016, and 2.0 in 2018. In 2019 they assessed the reliability of AMMA2050 information to be 2.0. In the 2016 baseline, scientists considered that national decision-makers assessed the reliability of climate information to be 1.3, and slightly lower, or 1.0, for sub-state decision makers. When considering how decision-makers' assess the reliability of AMMA-2050 climate within the 2019 endline, scientists assessed this at 2.1 for national decision-makers and 1.3 for local decision makers.

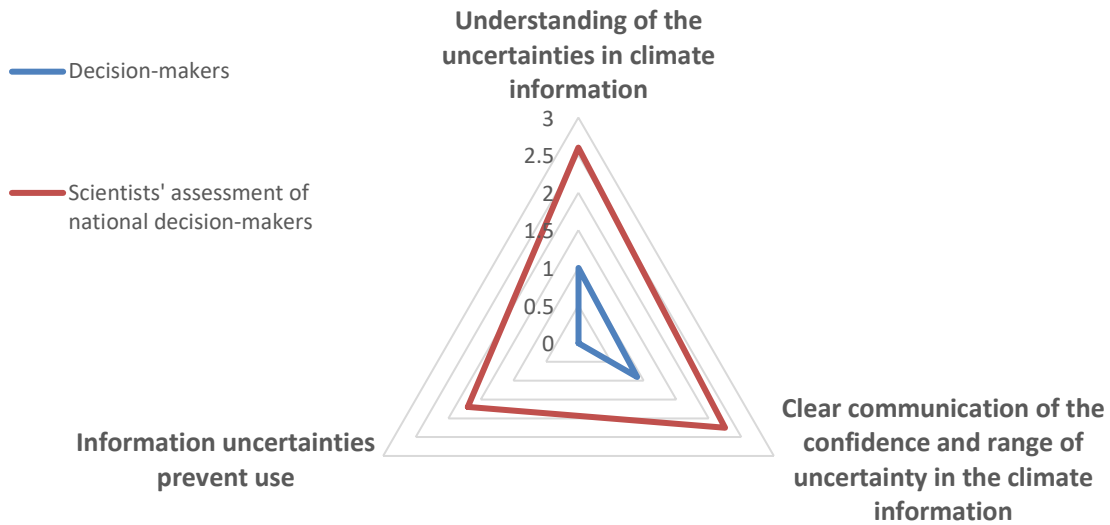
AMMA-2050 has focused not just on the usefulness and perceived reliability of developed products, but also on the steps in the process of co-producing and supporting effective use of these.

The following sections compare decision-makers and scientists' assessment of;

- The extent to which decision-makers understand the different causes of uncertainty in climate information;
- How clearly decision-makers consider the confidence and range of uncertainty in the information has been communicated;
- Whether the uncertainties in climate information prevent decision-makers from using it.

It should be noted that these assessments were general, and not made in relation to AMMA-2050 products or activities.

**Figure 3: Comparing decision-makers' and scientists' assessment of the understanding and communication of uncertainties in climate information, and whether the uncertainties in the information prevent use**



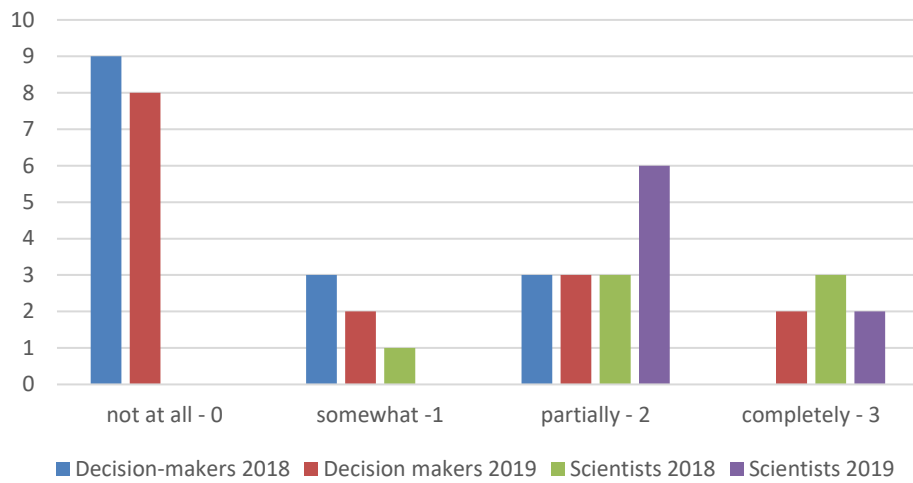
### Understanding of uncertainties

Scientists recognise the importance of decision makers understanding the causes of uncertainty in climate information. In 2018 and 2019 they assessed that it was partially to completely important for decision makers to understand the uncertainties within climate information (2.75 in 2018, 2.66 in 2019). In 2018 decision makers in Burkina Faso on average assessed their understanding of the levels of uncertainty as low (average 1.66) and low at endline (average 1.07). The third meeting with decision makers in Ouagadougou is taking place in the first half of 2020, during the project's extension.

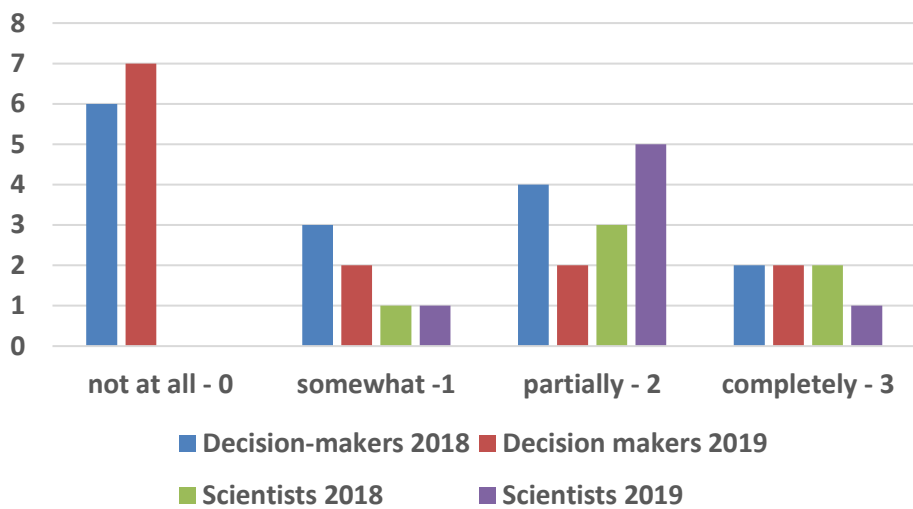
### Communicating the confidence and range of uncertainty in climate information

In terms of clearly communicating the confidence and range of uncertainty within climate information, Figure 3, above, and Figures 4 and 5, below, highlight differences between decision makers and scientists in how clearly they assess that the levels of confidence and range of uncertainty in the climate information have been communicated. At endline, scientists assess this on average at partial ('2'), while decision makers, on average, assess this lower at somewhat ('1'). In 2018 decision makers in Burkina Faso assessed that the confidence and range of uncertainty in the information is somewhat clearly communicated (respectively 0.6 and 1.13), with little change noted in 2019 (0.93 and 0.8 respectively).

**Figure 4: Decision makers' and scientists' assessment of how clearly the confidence in climate information is communicated, comparing responses across 2018 and 2019**



**Figure 5: Decision makers' and scientists' assessment of how clearly the range of uncertainty in climate information is communicated, comparing responses across 2018 and 2019**



**Uncertainties prevent use of information**

While, as noted above, decision makers assess they have low understanding of the causes of uncertainty in climate information, these uncertainties do not prevent them from using it in their decision-making.

The 2016 baseline identified that ‘scientists accord greater importance than national decision makers as to how much uncertainties in climate information prevent them from using it’<sup>1</sup>. Across KILs, decision-makers increasingly considered that the uncertainties in climate information do not prevent them using it in their decision making, while scientists continued to see the uncertainties in the climate information as a constraint to their use. At baseline decision-makers considered uncertainties as ‘somewhat’ of a constraint (average 1.46), and at endline ‘not at all’ a constraint. At baseline scientists considered

<sup>1</sup> Visman (2016) Technical Report 2, p7

the uncertainties in climate information to be somewhat to partially (average 1.70-1.90) of a constraint for national decision makers, and somewhat of a constraint for sub-state decision makers (1.25-1.90), with these figures changing minimally by endline.

Decision makers noted that they 'have to make decisions' and 'people carry out activities in uncertain situations' (KIIS22, 2019), with researchers likewise recognising that 'people are used to the idea of uncertainty' (KIIEU01, 2019). As one researcher noted, 'The problem in using climate information is not so much the uncertainty as the inability to meet decision-makers' needs (for example, deterministic projection of the coming 10 years)' (*Le problème dans l'utilisation de l'information climatique n'est pas tant l'incertitude mais l'incapacité à répondre à la demande des décideurs (projections déterministes dans les 10 années à venir par ex'*, KIIEU10, 2019).

### **2.3 Gender and inclusion**

The programme logframe initially required gender-disaggregated monitoring of the number of African scientists participating in research (Output 4.1) and African boundary agents and users participating in capacity development activities (Output 4.3).

Additional indicators relevant to gender and inclusion were integrated in 2016, to include:

How pilots are 'encompassing approaches which integrate gender and inclusion considerations' (Output 2.1); and

'Evidence of gender consideration' in the production of decision-relevant climate information products' (Output 3.1).

AMMA-2050 has produced a separate Technical report, 'Considering how Gender and Inclusion have been addressed within AMMA-2050 across project design, research methodologies, capacity building and monitoring, evaluation and learning' (see Technical report 7).

From the outset, AMMA-2050 pilots were focused on climate-risks directly relevant to marginalised social groups: flooding in Ouagadougou and pearl millet and climate-resilient agricultural practises in Senegal.<sup>2</sup> The participatory research methodologies employed within the project pilots (including Participatory Impact Pathways Analysis, a Plateau game, participatory modelling and Theatre Forum) have enabled local, (sub-state) regional and national decision-makers to inform and consider research findings. The range of tools and approaches employed across the project have included a range of exercises to support understanding amongst non-technical participants of key climate concepts and impacts across sectors of focus.

As further discussed in the following section and a 2019 Impact Case Study<sup>3</sup>, partnering researchers have also welcomed the opportunity for engagement with stakeholders that AMMA-2050 has afforded them. For some researchers, despite extended periods focused on African climate science, the project has been their first opportunity for such

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<sup>2</sup> The third largest cereal in West Africa and a staple food for 50 million people across the Sahel, pearl millet is a rich source of micronutrients and performs better than other cereals under high temperature, low soil fertility, and limited rainfall.

<sup>3</sup> The programme has required project to provide two impact case studies in 2018 and 2019. These are available on the AMMA-2050 website <https://www.amma2050.org/Home>

direction discussion with decision makers. This has heightened their awareness of the need to deepen appreciation of decision-making processes and tailor the types and formats of climate information for specific decision-makers and contexts.

In terms of capacity building, 5 of the 15 African researchers supported within AMMA-2050 have been female. Female participation has in AMMA-2050 meetings has average 24% female and 76% male, with 32% of participants in the joint 2018 AMMA2050-WASCAL workshop being women, 24% of the participants in the 2018 meeting with Mayors in Ouagadougou being women and no women participating in the small, high-level meeting in Senegal also taking place in May 2018.

The project Monitoring, Evaluation and Learning framework mapped out how AMMA-2050 proposed monitoring gender and inclusion. KIIs included a question on the extent to which, and how, decision makers and researchers consider the impacts of climate change on marginalised groups, including women. Decision makers rated their own consideration as high in 2016 and 2018 (selecting either 'partially' or 'completely'), with both decision makers and researchers rating AMMA2050's consideration of gender and inclusion as low (or 'somewhat') in 2019. As one researcher noted 'we would have monitored impact on gender and inclusion differently if integrated in initial planning.' (KIIS04, 2019).

Research in the pilots has strengthened understanding about the climate-related risks facing specific marginalised groups and the need for this to inform infrastructural development and adaptation strategies. While project findings have been able to inform city-level, (sub-state) regional and national decision-making processes, programme and project design has limited the resources available to address and seek to overcome the identified risks facing specific social groups.

## **2.4 Researcher capacities to produce decision-relevant climate information**

This relates to two indicators:

Outcome Indicator 1: Number of researchers who have increased awareness of how to produce ... decision-relevant, robust climate information products and tools; and

Output indicator 4.2: Number of African Early Career Researchers with improved capacity to deliver high quality, decision-relevant research

KIIs for the baseline undertaken in 2016 highlighted that 'almost a third of researchers interviewed had no consultation with national or local decision makers. More than half of the EU-based researchers had no consultation with national and regional decision makers, and more than two-thirds no consultation with local decision makers'.<sup>4</sup>

While findings related to researcher capacities have also been monitored through end of exchange reports, evaluations of trainings and stakeholder engagements<sup>5</sup> and the CCKE-led annual survey of early career researchers, KIIs also provided important

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<sup>4</sup> Visman et al (2016).

<sup>5</sup> For example, 'all participating scientists considered the (WASCAL-AMMA2050) workshop either very useful or useful in improving their ability to provide research that supports responses to climate variability and change. CEH/WASCAL 92018),19

insights. Of the 12 AMMA-2050 researchers (half of whom are early career researchers) with whom KIIs were undertaken over the course of the project, 11 felt that engaging in AMMA-2050 had partially or completely (average score 2.7) improved their capacities to deliver research that can advance responses to climate variability and change.

As further detailed in a 2019 project impact case study, researchers have highlighted how engaging with the project has strengthened not just their technical capacities (including in developing Intensity, Duration, Frequency (IDF) curves and coding methods to produce climate metrics), but also their ability to more effectively engage with decision-makers, better appreciate their needs and, consequently, develop more useful science. This engagement has also resulted in indirect benefits for some researchers, including career promotion.

A number of researchers actively engaged in a range of stakeholder engagements and were supported to employ and develop a range of participatory approaches to share, discuss and receive feedback from decision-makers engaged in the project's pilot studies. Researchers appreciated first-hand the importance of employing approaches that enable deeper understanding of decision-makers' concerns, existing knowledge sources, institutions and processes, and for these to inform research focus.

Researchers also identified that the project has strengthened their engagements across sectors, disciplines, institutions and research networks. Early career researchers appreciated strengthening their awareness of different ways for undertaking and managing research projects and communicating and evaluating scientific results.

Engagements with decision makers have also altered perceptions, with some researchers prior to the project, considering that this was not part of their job (*'Ce n'est pas mon boulot.'*, KIIS04, 2019). Through the project, researchers have been 'forced to do stuff that is useful, as well as interesting' and 'prioritise science questions that might help decision makers more directly'. (KIIEU06, 2018 and 2019). For some researchers, the engagement also resulted in career promotion. One researcher in Senegal noted that 'I think that we were given a promotion through the work with AMMA-2050' (*'Je pense que nous avons eu une promotion à travers les activités du projet AMMA-2050'*, KIIS04, 2019).

Over the course of the project, researchers repeatedly noted the significant changes in understanding of their role in supporting climate-resilient development. One researcher noted that 'The project has completely changed me... I directly see the difficulties of communicating, to simplify some messages without losing the complexities...My perspectives are completely different through engaging with AMMA-2050' (KIIEU03,2019). Another researcher noted that through projects like AMMA-2050 you can 'start to see you can have an impact with your research'. They recognised that 'You have to change your way of doing science. You need to stay a good scientist but

develop other competencies', noting '(scientists also need to be aware of the ethics of undertaking this kind of work and need 'to learn to do it properly'. KIIEU01, 2019).

*'The strong collaboration amongst researchers in AMMA2050 and the constant reminder of providing "useful and usable" science have... encouraged researchers to engage more with users of climate information and their needs during meetings/workshops - for many for the first time in their researcher lives. The pure confrontation with those questions is beneficial as even people who work for institutions that provide climate information on a regular basis, like ANACIM, started thinking about their products from a new angle and possible ways of improving their usefulness. Even if the perfect product is not there yet, the awareness of user needs and new skills for user engagement surely are.'* KIIEU11, 2019

## **2.5 Integration of climate information within decision making processes**

This issue relates to two logframe indicators:

Impact Indicator 1: Number of long-term policies, plans and investments aimed at enhancing resilience developed or revised to utilise enhanced knowledge of climate science for Africa; and

Outcome Indicator 3: Number of examples of institutional decision-making platforms/mechanisms revised or created to embed climate information into institutional processes

### *Long-term resilience-focused policies, plans and investments using enhanced climate science*

The project baseline noted that, in Burkina Faso, key ministries, including the MUH, 'base their work on current understanding of flooding (including the 2009 flood) rather than employing scientific understandings of future climate risks' (KIIBF09, 2016), 'the original and revised Grand Ouaga plans did not fully integrate flood risks', and the revised 2008 plan 'was based on historical data to 2006'.<sup>6</sup> In Senegal, while frameworks for integrating climate information in decision making were well developed, there remained a need to strengthen capacities within the National Assembly and local government and support further integration of climate change information within agricultural policies and programmes<sup>7</sup>.

AMMA-2050 has supported co-production and uptake of tailored climate information within the decision-making processes of focus within each project pilot. In Senegal, project outputs and activities have supported the Projet d'Appui Scientifique aux processus de Plans Nationaux d'Adaptation (PAS-PNA) and will be supporting Fatick regional planning. In Burkina Faso, project activities and outputs are informing infrastructural planning, including revision of the Grand Ouaga Plan, road development and commune development planning. While AMMA-2050 has not able to provide the detail required to support drainage work being commissioned by the Mayor of Ouagadougou's office within the project period, it is hoped that this need can be addressed within the project extension.

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<sup>6</sup> Visman et al (2016) Technical note 3, p10-11.

<sup>7</sup> Visman et al(2016) Technical report 3, p7.

*“AMMA’s outputs have been used to make vulnerability analysis in 3 sectors (coastal zone, agriculture, water resources) at a local level (in the Fatick region).*

*So, AMMA outputs have been used or will be used in different policies:*

*At national level: in the Senegalese National Adaptation Programme (NAP) process, climate policies, and sectoral (coastal zone, agriculture, water resources) strategies or plans (for example in the Plan de Gestion Intégrée des Ressources en Eau (PAGIRE, an integrated water resources management plan).*

*At local level, AMMA outputs will be integrated into local development plans and are being used in the development of a concept note (project proposal) which will be submitted to the Green Climate Fund. AMMA’s data (climate projection (CMIP5) and agriculture impact model (SARRA-H) has been used under PAS-PNA to feed our vulnerability analysis related to climate change, specifically exposure for the 3 sectors and sensitivity for the agricultural sector. Those studies will be used to build the Senegalese NAP and the sectoral NAP in Senegal.*

*I think in agriculture policies, AMMA2050 information and products will be used. But climate projection could be useful for all sectors actually. Now, the question is to know if the decision makers in those other sectors know about this information and how to use it.’*

*Key Informant Interview S26, 2019.*

#### *Institutional decision-making platforms/mechanisms revised or created to embed climate information into institutional processes*

The project baseline identified considerable differences between Burkina Faso and Senegal concerning the existence of regular channels of dialogue between decision-makers and climate information providers<sup>8</sup>. Decision-makers in Senegal considered existing channels of dialogue as fairly good (average 1.67), whereas the levels of dialogue were considered much lower in Burkina Faso (average 0.75).

To ensure sustainability, AMMA-2050 sought to work through established systems, where these existed, and to strengthen the capacities of national research partners, rather than establishing new channels or engaging external intermediaries. In Senegal, AMMA-2050 engaged with Comité Régionale du Changement Climatique (COMRECC, the Regional Committee on Climate Change) in Fatick, and worked with the PAS-PNA, supporting the National Adaptation Plan. The project also engaged with the National Assembly’s Réseau des Parlementaires pour la Protection de l’Environnement au Sénégal (REPES). In Burkina Faso, partners focused engagement with the Ministère de l’Urbanisme et de l’Habitat (MUH, the Ministry of Urbanism and Housing) and the office of the Mayor of Ouagadougou, as well as engagements with the mayors across the capital and informing the counterpart PAS-PNA in Burkina Faso.

There have been structural constraints to the project working through existing decision-making bodies and systems. In Burkina Faso, engagement with decision making channels was initially constrained through repeated delays in establishing a proposed inter-ministerial body on urban planning. While there are national and sub-state

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<sup>8</sup> Visman et al (2016) Technical Note 2, p8.



frameworks for decision-making on climate change in Senegal, 'institutions are blocked' (*'Les institutions sont bloquées'*, KII28 Senegal 2019), with representative of the Senegalese National Assembly highlighting the importance of simultaneously working with individuals and networks, such as the National Assembly's Commission Permanente de Développement (a cross-ministerial body). Engagements in Senegal have also highlighted constraints with the COMRECC structure. The body is not well resourced or active in all regions. Over the course of the project period there were frequent changes in COMRECC staff in Fatick. Moreover, there are recognised misalignments, with COMRECC operating at a regional level, while development decision-making now takes place at departmental level.

While the project, has not been able to achieve systematic integration of climate information within decision-making processes of pilot focus, it has heightened recognition of this need. The MUH in Burkina Faso would like AMMA-2050 learning to inform urban planning within World Bank-funded infrastructural projects in 12 other towns. There are proposals to standardise integration of AMMA-2050 IDF curves within the Terms of Reference for infrastructural development commissioned by the Mayor of Ouagadougou's office. Since its participation in the 2018 meeting on integrating flood risk in urban planning, the Burkinabè Ministry of Health has been considering climate risks in its projects and programmes.

Findings from the KIIs were supported by statements made within the 2019 final project meeting. Participants felt that this forum enabled 'a giant step'...'institutionally, the problem of climate change is understood and accepted... Results at the institutional level are more or less achieved,' Nevertheless, there remained a need to operationalise research findings.<sup>9</sup> Representatives of the Senegalese National Assembly also recognised the need for national agricultural planning to be reviewed in light of emerging understanding of future climate risks<sup>10</sup>.

I think that the elected representative have today made a giant step. Institutionally, the problem of climate change is understood and accepted. So, the institutional level is more or less achieved. Results at the institutional level are more or less achieved. It is at the operational level that it's wrong. We remain as if in laboratories. It is necessary that the laboratory space is widened to actions of production which accompany the lives of the producers .... it will never be settled in offices, it will be resolved in the fields.'

*Je pense que les députés aujourd'hui, ils ont réalisé un pas de géant. C'est qu'institutionnellement, la problématique du changement climatique est comprise et acceptée. Donc, le niveau institutionnel est plus ou moins atteint. Les résultats au niveau institutionnel sont plus ou moins atteints. C'est au niveau opérationnel que ça cloche. On est toujours comme dans des laboratoires; il faut que le champ du laboratoire soit élargi à des actions de production qui vont avec le vécu des producteurs.... ça ne se règlera jamais dans les bureaux, ça se règlera dans les champs.*

Ibrahim Seck, Conseil national de concertation et de coopération des ruraux (CNCR)

<sup>9</sup> Statement by Ibrahim Fasser, CNCR at final annual meeting 2019.

<sup>10</sup> Interview with members of the Senegalese National Assembly at AMMA-2050's final meeting 2019 and as reported in Enquete (2380) 13 juin 2019.

Moreover, engagement with AMMA-2050 has led to strengthening of stakeholder engagement within partnering research institutions. ISRA and WASCAL have recognised the need to ensure dedicated institutional capacity for science-policy and for researchers to have the tools and training to effectively engage with decision-makers. WASCAL Acting Executive Director, Bamba Sylla, reported that the institution planned to use the experience of AMMA-2050 in its engagement with decision makers.

‘How are we going to engage with decision-makers; we’re going to use AMMA’s experience’.  
*‘Comment on s’engage avec les décideurs, on utilise l’expérience d’AMMA’.*

Bamba Sylla, Acting Executive Director, WASCAL, statement in 2019 final AMMA-2050 project meeting.

### 3.0 Key emerging issues

The KII scorecard undertaken with a cohort of researchers and decision makers over the course of AMMA-2050 has provided a methodology for identifying both quantitative and qualitative data on key areas of change, as required to meet reporting requirements and to support ongoing project learning and review. KII findings have been triangulated with data from other forms of monitoring, including policy reviews, press coverage, evaluations of stakeholder engagement meetings and trainings and personal testimonies.

The use of KII scorecards requires sufficient resourcing, both for the development, piloting and translation of KII scorecard questionnaires, as well as for the identification of key informants, establishing times to meet with them over the course of the project, undertaking the interviews and analyzing resulting findings. As with any monitoring methodology, it can be difficult to identify at outset key areas of change and indicators, together with the most effective questions to ask in relation to monitoring these. It should also be noted that some key informants can be reticent to provide scores, preferring to give only qualitative responses.

This review of findings collated through using the KII scorecard in AMMA-2050 highlights a number of areas for further investment and support, including:

- Strengthening decision-makers’ understanding of the uncertainties in climate information;
- Building scientists’ capacities to clearly communicate the confidence and range of uncertainties within the climate information they produce;
- Strengthening opportunities for researchers to work directly with specific groups of decision-makers, to better understand how best to support climate-resilient development;
- Supporting decision-makers’ capacities to effectively employ the tools and products that AMMA-2050 has developed;
- Increasing support for action or applied research, providing opportunities to take action on emerging research findings in partnership with decision makers and directly affected people;
- Deepening understanding about the impacts of climate-related risks amongst marginalised groups, including women, and working with these groups to identify acceptable adaptation pathways;

- Increasing understanding about the ways in which climate adaptation can best be supported through both formal and informal mechanisms and channels, and amongst the wide range of actors that need to be engaged; and
- Reviewing the most effective ways of baselining and monitoring key areas of change related to the co-production and integration of climate information within medium-term decision-making.

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