
Southern Africa subregion



Countries covered by the LAKI in the Southern Africa subregion



III.

Southern Africa subregion

Partnership with SouthSouthNorth (SSN)

Context

The third priority-setting workshop covering eight countries in the Southern Africa subregion was held from **16-18 November 2015** in **Johannesburg, South Africa**. The MSG consisted of 10 core experts with representatives from non-governmental organizations, the private and public sector and research institutions working on crosscutting as well as sector-specific adaptation challenges in the subregion.

Scoping paper

The scoping paper for the Southern Africa subregion included 52 adaptation knowledge gaps derived from a literature review of published information on:

- > Agriculture and food security
- > Forestry and biodiversity
- > Water resources
- > Fisheries
- > Energy
- > Meteorological data
- > Human settlements and infrastructure
- > Health

Priority-setting workshop

Step 1

Refining the pool of knowledge gaps

The MSG refined the gaps identified in the scoping paper by adding, deleting, amending and/or merging gaps and categorizing them into thematic groups. The initial pool of knowledge gaps was refined from 52 to 45 for the prioritization exercise.



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Step 2

Prioritizing the knowledge gaps

The MSG agreed on the criteria and aggregated weights for prioritizing the adaptation knowledge gaps (see annex I). Subsequently, these criteria were used to analyse the 45 knowledge gaps through two Delphi rounds. The exercise produced 16 priority gaps which the MSG determined would yield the most tangible and sustainable benefits if closed (see Table 3).

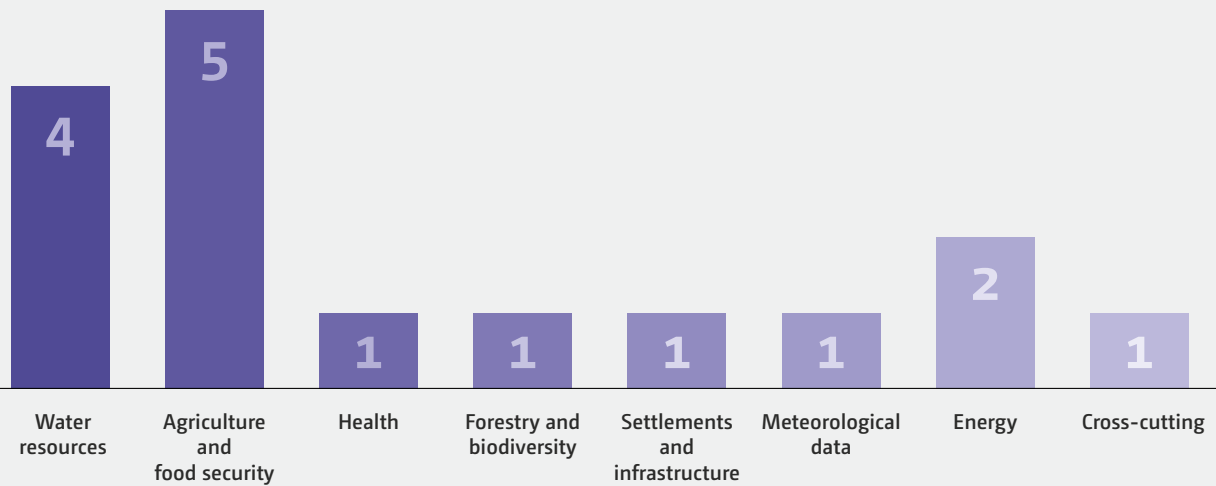
The distribution of these gaps by thematic area is illustrated in Figure 6. The highest number of priority knowledge gaps for the Southern Africa subregion are related to agriculture and food security, followed by water resources. Half were the result of a lack of actionable knowledge (cluster 3).

Step 3

Designing possible response actions

The third and final step of the workshop centred on potential response actions and organizations best placed to drive them (see Table 3). For example, the MSG suggested that vulnerability maps would help to close the first gap on water resources. They also noted that priority gap three on agriculture/food security could be addressed by integrating climate-sensitivity into agro-ecological zoning guidelines. Similarly, gaps 11 and 12 relating to meteorological information and human settlements, respectively, could be narrowed by providing trainings on how to integrate climate science into decision-making processes and spatial planning.

Figure 6 **Number of priority gaps by thematic area for the Southern Africa subregion**



Thematic areas of priority gaps

Implementing actions to close knowledge gaps

The outcomes of the priority-setting workshop, including the full workshop report, were disseminated through the Adaptation knowledge portal.⁷ They were also presented at a side event in Paris with scientists, policymakers and practitioners during the 21st Session of the Conference of the Parties to the UNFCCC in December 2015. The event featured expert panellists from the Climate

Development Knowledge Network (CDKN), the Adaptation Committee, the International Centre for Climate Change and Development (ICCCAD), the Environmental Protection Agency of Ghana, UN Environment-DEPI, and the UNFCCC Secretariat. Speakers discussed strategies for closing the priority gaps in the subregion.⁸

7. see: <http://www4.unfccc.int/sites/NWP/Pages/LAKI-Africa.aspx>
8. see https://www.afdb.org/fileadmin/uploads/afdb/Documents/Events/COP21/Abstracts/03_Dec_2015_-_Lima_Adaptation_Knowledge_Initiative.pdf

Table 3 | Priority knowledge gaps for the Southern Africa subregion

No.	Thematic area	Gap description	Cluster	Knowledge user
1	Water resources	Lack of knowledge on the vulnerability of and impacts of climate change on river basins and watershed systems	Lack of data [1]	River basin authority, department responsible for water resources management
2	Cross-cutting	Lack of information on available adaptation options for agriculture	Lack of actionable knowledge (e.g., in need of repackaging existing knowledge) [3]	Farmers and extension officers
3	Agriculture/ Food security	Lack of knowledge on the sensitivity of agro-ecological zones across the subregion to historic and future climate change	Lack of actionable knowledge (e.g., need to repackage existing knowledge) [3]	National planners, land managers, small holder farmers
4	Agriculture/ Food security	Lack of knowledge in implementing appropriate climate risk management strategies for agriculture	Lack of actionable knowledge (e.g., in need of repackaging existing knowledge) [3]	National committee for disaster management; extension workers
5	Water resources	Lack of knowledge on the vulnerability of and impacts of climate change on river basins and watershed systems	Lack of data [1]	National and regional water planners, (River basin authority, department responsible for water resources management)
6	Agriculture/ Food security	Lack of usable knowledge products on short and long-term meteorological data and seasonal forecasting for agriculture planning	Lack of actionable knowledge (e.g., in need of repackaging existing knowledge) [3]	Agricultural extension department, extension workers and farmers
7	Water resources	Lack of clear information on the relative contribution of natural variability, climate change and other human impacts on trends in the hydrological cycles	Lack of data, Lack of actionable knowledge (e.g., in need of repackaging existing knowledge) [Mix]	Water resource planners, climate change department, meteorological department
8	Agriculture/ Food security	Limited knowledge on technologies available for adaptation in the agricultural sector	Lack of access [2]	Small-scale farmers, extension workers, technology providers, financiers, and planners

No.	Thematic area	Gap description	Cluster	Knowledge user
9	Health	Lack of knowledge on relationship between climate change and human health including the geographical distribution of human diseases	Lack of actionable knowledge (e.g., in need of repackaging existing knowledge) [3]	Ministry of Health, public health department
10	Energy	Insufficient knowledge on the climate change impacts on hydropower generation	Lack of actionable knowledge (e.g., in need of repackaging existing knowledge) [3]	National level energy planners
11	Meteorological data/ information	Lack of knowledge on effective integration of climate model results into decision-making	Lack of tools/methods [4]	National level planners
12	Human settlements	Lack of knowledge on how to integrate climate science into spatial planning	Lack of tools/methods [4]	City planners, champions and higher education students
13	Energy	Lack of integrated and sustainable approach to sustainable energy planning for households	Lack of actionable knowledge (e.g., in need of repackaging existing knowledge) [3]	National energy planners
14	Water resources	Inadequate access to long-term meteorological data that limits rainfall-runoff modelling for the rivers and floodplains	Lack of access, lack of actionable knowledge (e.g., in need of repackaging existing knowledge) [Mix]	National water resource planners, researchers
15	Agriculture/ Food security	Lack of knowledge on the sensitivity of agro-ecological zones across the subregion to historic and future climate change	Lack of data, lack of actionable knowledge (e.g., in need of repackaging existing knowledge) [Mix]	Ministry of Agriculture, crop production departments, national level extension planners
16	Forestry and Biodiversity	Lack of policy relevant information on the impacts of climate change on forestry, biodiversity and structure, functions and provisions for ecosystems	Lack of actionable knowledge (e.g., in need of repackaging existing knowledge) [3]	Ministry responsible for forestry and biodiversity

For more information, see the full workshop report available via the Adaptation knowledge portal at <http://www4.unfccc.int/sites/nwp/Pages/Home.aspx>