



### Balancing water needs in Morocco's Saiss basin

A research team led by Al Akhawayn University is working with provincial agriculture directorates and the Sebou Basin Authority to devise strategies that will help communities cope with growing water scarcity.

*Photos courtesy of Al Akhawayn University*



Cape Verde 48 47



Gambia

Guinea-Bissau

Guinea 48

Sierra Leone

Ghana 33 34 36 7 56 57 58 64 65 66 67 68 69 70 71

Ivory Coast

Liberia

Equatorial Guinea

Sao Tome & Principe 49

Cameroon 2

Gabon

Congo

Central African Republic

Democratic Republic of Congo

Rwanda

Burundi

Uganda 12 40 41

Kenya 22 26 50 20 21 22 36 37 44 50 51 52 53 1 4

Tanzania 1 7 44 1 11 23 24 38 39 59 60

Malawi 2 3 2 3 8 61 62 63

Mozambique 45 51 10

Zimbabwe 14 27 28 29

Namibia 46

Botswana

Swaziland

Lesotho

South Africa 4 5 6 10 43 52 4 5 6

Tunisia 19 42 6

Morocco 8 16 17 18 27 28 25 26 54

Algeria

Libya

Egypt 11 12 13 14 15 29 55 73

Western Sahara

Mauritania

Mali 9

Niger 7

Burkina Faso 23 24 25 40 41 42 45 46 75 76

Benin 9 32 33 34

Nigeria 35

Ethiopia 37 38 39 18 19 72 73 74 5

Somalia

Eritrea

Djibouti

Mauritius 47

Reunion

Madagascar 35



### Reducing vulnerability in Madagascar

In Madagascar, research led by the University of Antananarivo on the vulnerability of agrarian systems has been shared with the National Climate Change Committee and contributed to preparing the country's second national communication under the UN climate change convention.

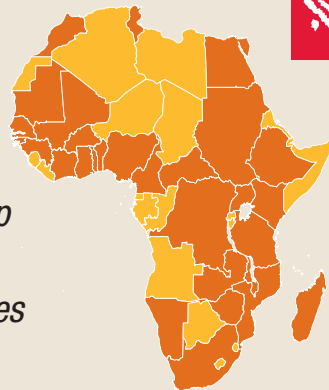
*Photos*

*Stakeholder meeting courtesy of U. of Antananarivo  
Researchers in rice field: IDRC/N. Beaulieu*

## CCAA research-to-policy links

### Mapping our partners' engagements

The CCAA program supports participatory action research that informs policy processes with science-based evidence on vulnerability and adaptation. To this end, projects work with policy institutions at the local, national and/or regional levels. These partnerships increase local ownership of the research and make it more likely that the options identified through research will be implemented and sustained. They also increase the chances that successful project outcomes will be scaled up.



### Preparing farmers in Benin

Research in Benin led by IDID-ONG improved early warning systems that help farmers prepare for seasonal uncertainty. In 35 communes, local authorities such as Mayor André Todje of Sô-Ava (Atlantique department) and other stakeholders helped develop, interpret and disseminate pre-alert bulletins that give farmers timely advice on the growing season.

*Photos courtesy of IDID-ONG*



On these maps, the term "policy institution" refers to:

- Institutions with a continent-wide policy mandate (such as the United Nations Economic Commission for Africa)
- Organizations which provide technical support for planning and scientific information to regional and sub regional policy bodies (such as AGHYMET, which serves as an agro-meteorological advisory body to the Permanent Interstate Committee for Drought Control in the Sahel, or the Drought Monitoring Centre in Harare which serves the Southern African Development Community)
- Local or national institutions representing public authority in specific areas (such as ministries and departments of agriculture or the environment, national meteorological services, or basin authorities)
- National platforms that link various policy actors (such as national climate change committees)
- Decentralized institutions representing local populations and responsible for developing and implementing local policies (such as local governments)

"Local" refers to municipal, district, provincial, or other sub-national bodies.

"Regional" refers to bodies that are continent-wide in their mandate, or which group two or more countries in a region of Africa.



# CCAA research-to-policy links

## Mapping our partners' engagements

● Local policy connection    ■ National policy connection    ■ Regional policy connection

Project title and number	Countries	Policy connections
Strengthening Local Agricultural Innovation Systems in Less Favoured and High Potential Areas of Tanzania and Malawi 10414	Tanzania	<div>1</div> Iramba District Agriculture and Livestock Office
	Malawi	<div>2</div> Mulanje District Agricultural Development Office
		<div>3</div> Chikwawa District Agricultural Development Office
		<div>2</div> Malawi Ministry of Agricultural Development
		<div>3</div> Malawi Ministry for Environmental Affairs
Managing Climate Risks for Agriculture and Water Resources Development in South Africa 104150	South Africa	<div>4</div> Western Cape Department of Water Affairs
		<div>5</div> Western Cape Department of Agriculture
		<div>6</div> Berg River Catchment Management Authority
		<div>4</div> National Department of Agriculture
		<div>5</div> Department of Water Affairs
		<div>6</div> Water Research Commission
Resilience and the African Smallholder Farming: Enhancing the Capacity of Communities to Adapt to Climate Change 104140	Ghana	<div>7</div> Directorate of Agricultural Extension Services, Ministry of Food and Agriculture
	Malawi	<div>8</div> Department of Agricultural Extension Services, Ministry of Agriculture and Food Security
	Mali	<div>9</div> National Directorate of Agriculture
	Mozambique	<div>10</div> National Directorate for Rural Extension, Ministry of Agriculture and Rural Development
	Tanzania	<div>11</div> Research and Extension Services, Department of Agriculture and Food Security
	Uganda	<div>12</div> National Agricultural Advisory Services, Ministry of Agriculture, Animal Husbandry & Fisheries
	Zambia	<div>13</div> National Extension Services, Ministry of Agriculture and Cooperatives (MACO)
	Zimbabwe	<div>14</div> Agricultural, Technical and Extension Services (AGRITEX), Ministry of Lands, Agriculture and Rural Resettlement
Managing Risk, Reducing Vulnerability and Enhancing Productivity under a Changing Climate 104146	Sudan	<div>15</div> Sudan Meteorological Authority
		<div>16</div> Ministry of Agriculture and Forestry
		<div>17</div> Agricultural Research Corporation
	Ethiopia	<div>18</div> National Meteorological Agency
		<div>19</div> Ministry of Agriculture and Rural Development
	Kenya	<div>20</div> Kenya Meteorological Department
		<div>21</div> Ministry of Environment and Mineral Resources
		<div>22</div> Ministry of Agriculture
	Tanzania	<div>7</div> Same District Agriculture and Livestock Development Office
		<div>23</div> Tanzania Meteorological Agency
		<div>24</div> Ministry of Agriculture and Food Security
Moroccan Coastal Management: Building Capacity to Adapt to Climate Change 104329	Morocco	<div>8</div> Nador, Berkane and Boudinar provincial governorates
		<div>25</div> Department of Energy, Mines, Water and the Environment
		<div>26</div> National Directorate of Meteorology
Building Capacity to Adapt to Climate Change in Zambia and Zimbabwe 104144	Zimbabwe	<div>27</div> Ministry of Environment and Natural Resources
		<div>28</div> Agricultural, Technical and Extension Services (AGRITEX), Ministry of Lands, Agriculture and Rural Resettlement
		<div>29</div> Department of Meteorological Services
	Zambia	<div>30</div> National Extension Services, Ministry of Agriculture and Cooperatives (MACO)
		<div>31</div> Zambia Meteorological Department
Strengthening the Capacity to Adapt to Climate Change in Benin 104142	Benin	<div>9</div> 35 municipalities ( <i>communes</i> )
		<div>32</div> Ministry of the Environment and Conservation
		<div>33</div> National Committee on Climate Change
		<div>34</div> Ministry of Agriculture, Livestock and Fisheries
Vulnerability and Adaptation of Agricultural Systems in Madagascar 104143	Madagascar	<div>35</div> National Committee on Climate Change
UNITAR Pilot Project 5: Adaptation Options for the Impoverished Amaoti Settlement through improved Water Supply, Drainage and Sanitation 104695	South Africa	<div>10</div> eThekwinini municipality (Durban)

Project title and number	Countries	Policy connections
Transferring the Malaria Epidemic Prediction Model to End Users in East Africa 104707	Kenya	<div>36</div> Ministry of Public Health and Sanitation, Malaria Control Unit
		<div>37</div> Kenya Meteorological Department
		<div>1</div> IGAD Climate Prediction and Applications Centre (ICPAC)
	Tanzania	<div>38</div> Ministry of Health and Social Welfare
		<div>39</div> Tanzania Meteorological Agency
	Uganda	<div>40</div> Ministry of Health
		<div>41</div> Department of Meteorology
New Land, New Life West of Lake Nasser – Aswan 104270	Egypt	<div>11</div> Aswan High Dam Lake Development Authority
		<div>12</div> Regional Branch Office, Environmental Affairs Agency
		<div>13</div> Aswan Public Health Department
		<div>14</div> Ministry of Agriculture, Aswan
		<div>15</div> Aswan Veterinary Department
Integrated Eco-systemic Approach for Optimization of Small Dams in Morocco 104270	Morocco	<div>16</div> Provincial Health delegations of Chtouka Ait Baha, and Taroudant
		<div>17</div> Rural districts of Aouganz, Askaoun et Smimou
		<div>18</div> Souss Massa Draa Hydraulic Basin Agency
Analysis of the Health Impacts of Climate Change Adaptation Strategies: Transmission of Zoonotic Cutaneous Leishmaniasis in Tunisia 104270	Tunisia	<div>19</div> Sub-Regional Health Office of Sidi Bouzid
		<div>42</div> Hygiene and Environmental Protection Branch, Ministry of Public Health
InfoClim: Platform for Helping Vulnerable Communities Adapt to Climate Change 104795	Senegal	<div>20</div> Thies Regional Planning Directorate
		<div>21</div> Rural Communities of Thiès, Notto, Fandène and Taïba Ndiaye
		<div>43</div> National Committee on Climate Change
Adaptation to Climate Change among Pastoralists in Northern Kenya 104752	Kenya	<div>22</div> Provincial administrative officers for Khalilio and Rhamu Locations in Mandera and for Namoruputh, Katilu and Kapua Locations in Turkana
		<div>44</div> National Environmental Management Authority
Altering the Climate of Poverty under Climate Change: the Forests of Congo Basin 104835	Cameroon, Central African Republic, and Democratic Republic of Congo	<div>2</div> Central African Forests Commission (COMIFAC)
Rural-Urban Cooperation on Water Management in the Context of Climate Change in Burkina Faso 104683	Burkina Faso	<div>23</div> City of Koudougou
		<div>24</div> City of Dori
		<div>25</div> City of Bobo-Dioulasso
		<div>45</div> National Office of Water and Sewage
		<div>46</div> National Meteorological Department
Adapting Fishing Policy to Climate Change with the Aid of Scientific and Endogenous Knowledge 104682	Cape Verde	<div>47</div> Ministry of Environment, Fisheries and Agriculture
	Guinea	<div>48</div> National Ministry of Maritime Fisheries and the Environment
	Senegal	<div>49</div> Ministry of Maritime Economy, Fisheries and Aquaculture
		<div>3</div> Sub-Regional Fishery Commission
Integrating Indigenous Knowledge in Climate Risk Management to Support Community Based Adaptation 104903	Kenya	<div>26</div> Provincial administration officers for Eshibira Location of Emuhaya District
		<div>50</div> Kenya Meteorological Department
		<div>51</div> Kenya Ministry of Environment and Natural Resources
		<div>52</div> Kenya Industrial Property Institute
		<div>53</div> National Museums of Kenya
		<div>4</div> IGAD Climate Prediction and Applications Centre (ICPAC)
Using Demand Side Management to Adapt to Water Scarcity and Climate Change in the Saiss Basin 105439	Morocco	<div>27</div> Sebou Basin Agency
		<div>28</div> Provincial Agricultural Directorates (DPAs)
		<div>54</div> National Directorate of Meteorology
Adaptation to the Impacts of Sea Level Rise in the Nile Delta Coastal Zone 105515	Egypt	<div>29</div> Governorates of Damietta and Diakalla
		<div>55</div> National Water Research Center, Ministry of Water Resources and Irrigation
Support Fund for Local Adaptation Strategies 105518	Senegal	<div>30</div> Municipality of Ngoye
		<div>31</div> Dya's Local Extension Service, National Rural and Agricultural Advisory Agency (ANCAR)
		<div>32</div> Local Meteorological Agency, Prefecture of Kounghoul

Project title and number	Countries	Policy connections
Climate Change and Human Health in Accra, Ghana 105814	Ghana	<div>33</div> Ga Mashie Development Agency (GAMADA)
		<div>34</div> Accra Metropolitan Assembly
		<div>56</div> Ministry of Health
		<div>57</div> Ministry of Water Resources, Works and Housing
		<div>58</div> Ghana Health Service
Exploring Urban-Rural Interdependence and the Impacts of Climate Change in Tanzania and Malawi 105836	Tanzania	<div>59</div> Tanzania Ministry of Agriculture and Food Security
		<div>60</div> Tanzania Ministry of Regional Administration and Local Government
	Malawi	<div>61</div> Malawi Ministry of Agriculture and Food Security
		<div>62</div> Malawi Ministry Natural Resources and Environmental Affairs
		<div>63</div> Malawi Ministry of Local Government and Rural Development
Implications of Climate Change on Rural-Urban Interactions: the Case Study of Aba and its Region, Southeastern Nigeria 105839	Nigeria	<div>35</div> Municipality of Aba
Managing Water in the Rural-urban Interface in Ghana and Ethiopia: the Key to Climate Change Resilient Cities 105869	Ghana	<div>36</div> Accra Metropolitan Assembly
		<div>64</div> Water Directorate of the Ministry of Water Resources, Works and Housing
		<div>65</div> Ministry of Food and Agriculture
		<div>66</div> National Disaster Management Organisation
		<div>67</div> Water Resources Commission
		<div>68</div> Community Water and Sanitation Agency
		<div>69</div> Environmental Protection Agency
		<div>69</div> Ghana Water Company
		<div>70</div> Hydrological Services Department
		<div>71</div> Ghana Health Service
		<div>71</div> Ghana Irrigation Development Authority
	Ethiopia	<div>37</div> Addis Ababa City Administration
		<div>38</div> Addis Ababa Sewage Authority
		<div>39</div> Addis Ababa City Environmental Protection Authority
		<div>72</div> National Meteorological Services Agency
		<div>73</div> Water supply and Sanitation Council, Ministry of Water Resources
		<div>74</div> Agriculture Extension Services, Minister of Agriculture and Rural Development
Protecting Cotonou's Urban Community in the Face of Climate Change 105815	Burkina Faso	<div>40</div> Municipality of Cotonou
		<div>41</div> Municipality of Sémé-Kpodji
		<div>42</div> Municipality of Calavi
		<div>75</div> National Office of Prevention and Civil Protection, Ministry of Health
		<div>76</div> Ministry of Decentralization, Local Authorities, and Land Use Planning
Sub-Saharan African Cities: A Five-City Network to Pioneer Climate Adaptation through Participatory Research and Local Action 105868	South Africa	<div>43</div> Municipality of Cape Town
	Tanzania	<div>44</div> Municipality of Dar es Salaam
	Mozambique	<div>45</div> Municipality of Maputo
	Namibia	<div>46</div> Municipality of Walvis Bay
	Mauritius	<div>47</div> Municipality of Port Louis
KSIDS: Building Capacity for Sustainable Responses to Climate Change in Cities of Portuguese-speaking Small Island Developing States 105838	Cape Verde	<div>48</div> Municipality of Sao Vicente
	Sao Tome and Principe	<div>49</div> City of Sao Tome
Strengthening the Role of Civil Society in Water Sector Governance Towards Climate Change Adaptation in African Cities 106002	Kenya	<div>50</div> Municipality of Nairobi
	Mozambique	<div>51</div> Municipality of Maputo
	South Africa	<div>52</div> Municipality of Durban
Monitoring and Evaluation Toolkit for Climate Change Adaptation Initiatives 104779	Continent-wide	<div>5</div> United Nations Economic Commission for Africa (UNECA)
		<div>6</div> Sahara and Sahel Observatory (OSS)
		<div>7</div> AGHRYMET