

## AgMIP and ZimCLIFS in Zimbabwe

The Agricultural Model Intercomparison and Improvement Project (AgMIP) is a major international collaborative effort to improve the state of agricultural simulation and to understand climate impacts on the agricultural sector at global and regional scales, with funds from UKAID and USDA.

Within AgMIP the Crop Livestock Intensification (AgMIP CLIP, 2013-2017) project's primary purpose is to re-design smallholder crop-livestock systems in semi-arid South-Eastern Africa (Zimbabwe, Malawi, Mozambique) to address poverty and enhance resilience to climate change. Pathways for sustainable futures were co-designed with stakeholders, which identified that Business as Usual Pathways to intensify agricultural production are insufficient to improving smallholder livelihoods. The team explored adaptation packages tailored to farm types, a change from the predominant blanket recommendation ideology.

Three primary objectives comprised the AgMIP-CLIP initiatives: engage stakeholders, assess impacts of climate change on farming system components, and develop and explore crop-livestock reconfiguration pathways. These objectives were achieved by improving communication and capacity development through multi-stakeholder dialogue, through advancing crop and livestock components, as well as further analyzing diversity of farming systems.

In Zimbabwe, the AgMIP South Eastern Africa Regional Team held a workshop on 25<sup>th</sup> – 26<sup>th</sup> October 2016 workshop titled “Future scenarios to inform decision making processes: National Representative Agricultural Pathways (RAPs) for Zimbabwe” at the ICRISAT Bulawayo office in Zimbabwe. The team is conducting research that aims at understanding climate change impacts on agriculture and prioritizing effective adaptation strategies.

The project on integrating Crops and Livestock for Improved Food Security and Livelihoods in rural Zimbabwe ( ZimCLIFS, 2013-2017) has the overall goal to develop ways to increase agricultural production, improve household food security, alleviate poverty and thereby reduce food-aid dependency in rural Zimbabwe through better integration of crop-livestock production and market participation. The International Livestock Research Institute (ILRI), in partnership with the International Maize and Wheat Improvement Center (CIMMYT), the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Commonwealth Scientific and Industrial Research Organisation (CSIRO), Queensland Alliance for Agriculture and Food Innovation (QAAFI) - in partnership with Queensland's Government's Department of Employment, Economic Development and Innovation (DEEDI), is engaging in this project, funded by the Australian Centre for International Agricultural Research (ACIAR).

For further information and additional reading on these initiatives, please see links below. Kindly direct any feedback you may have to [s.homann@cgiar.org](mailto:s.homann@cgiar.org)

<http://www.agmip.org/blog/2016/11/11/raps-and-scenarios-workshop-in-zimbabwe/>

<http://www.agmip.org/about/>

<http://www.agmip.org/research/research-regions/south-eastern-africa/>

<https://www.agmip.org/blog/2017/09/12/video-stakeholder-research-collaboration-in-south-eastern-africa/>

<http://news.trust.org//item/20151214144138-670zj/>

<http://www.icrisat.org/seamless-crop-livestock-integration-in-drought-prone-zimbabwe/>

4 Farmer testimonials and interview

[https://youtu.be/fb1mfS\\_dk0c](https://youtu.be/fb1mfS_dk0c)

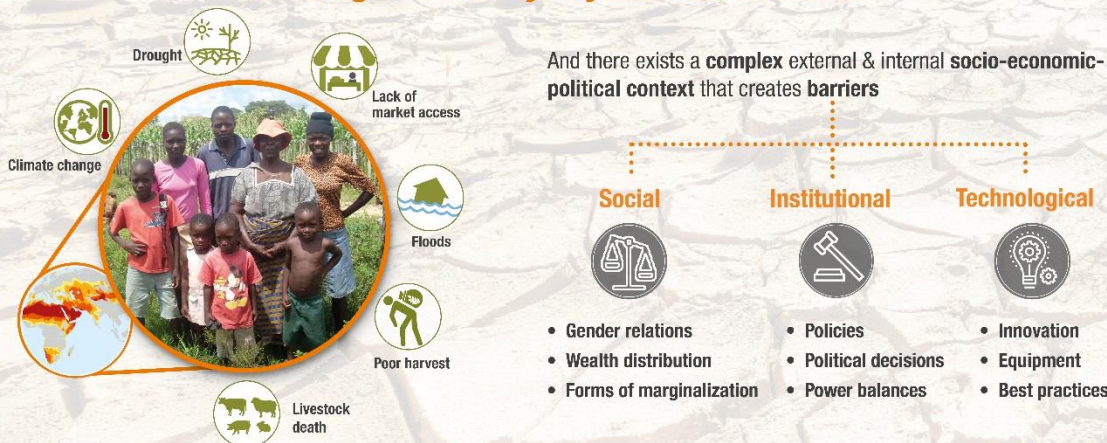
<https://youtu.be/KAp41-9xQw0>

<https://youtu.be/M6rAGtllYeY>

<https://youtu.be/WAMzEAXILsU>

<https://youtu.be/ujTwgkQPAT0>

## Challenges Faced by Dryland Communities



## Building Resilience in the Drylands Through Innovation Platforms



RESEARCH PROGRAM ON  
Dryland Systems

Over 40 agricultural innovation platforms (IP) have been established in 13 regions of the world under CGIAR Programs with partners.



RESEARCH PROGRAM ON  
Water, Land and Ecosystems

Innovation



### Innovation Platform (IP)

is an inclusive, multi-stakeholder & participatory space building local capacity to generate & adopt **context specific innovation** & solutions resulting in rapid uptake of technologies and **break barriers** for **sustainable natural resource** management, improved **food security** and **better livelihoods** in the world's **dry areas**.



### Linking Farmers to New Market Opportunities

► 15 villages in India

Innovation Platform

with **KVK Barmer**, **ICAR**, **ICRISAT**  
Government research institute **CAZRI**



Identified high value local medicinal herbs **Shankpushpi**, **Jeevanti** & **Arma** which are **drought tolerant** & need less water

20 farmers in Barmer village inter-cropped with **Shankpushpi** – cluster beans – pearl millet

Seeds sold at **\$23 per kg**

IP created market link  
Dabur India Ltd. to buyback from farmers **Dabur**

Farmer **Debaram** inter-cropped on **8 ha**

Earned **\$1247** during drought

Profits attracted more farmers

100 farmers on 120 ha

500 farmers on 300 ha

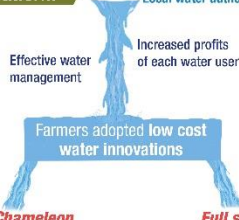
Shalander Kumar et al., 2016: <http://oar.icrisat.org/10242/>

### Reviving Communal Irrigation

► Zimbabwe

Innovation Platform

with **ZINWA**  
Local water authority



**Chameleon**  
To measure **soil moisture**

**Full stop**  
To avoid **over-irrigation**



**Silalatshani** Farmers doubled **maize yields** with **half the water**



André van Rooyen et al., 2017: <http://oar.icrisat.org/id/eprint/10016>

### Fodder Innovation for Higher Crop-Livestock Value

► Zimbabwe

Innovation Platform

Integrated goats with **groundnut** & **mucuna**

High protein fodder crop enhanced **soil fertility**, reduced livestock death & **increased market value**

Reduced investments  
Increased meat quality

**775%** increase in goat prices

**\$8** 2006 → **\$80** 2015



Sabine Homann-Kee Tui et al., 2015: <http://oar.icrisat.org/8242/>