Prioritization Meetings Report

Proceedings

of

three national Prioritization Meetings held in

Harare, Zimbabwe, Balaka, Malawi and Chipata, Zambia

and

a Regional Synthesis Workshop

held in Lusaka, Zambia, August 6-9, 2018

August 2018

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Executive summary

Under the project “Out-scaling climate-smart technologies to smallholder farmers in Malawi, Zambia and Zimbabwe” stakeholders aim to evaluate the impact of a changing climate on current farming systems and identify appropriate adaptation measures. This reports summarizes the process and outcomes of a two-staged process to identify and prioritize adaptation strategies designed to reduce the impact of climate change on smallholder farmers.

Meetings were held in-country (Malawi, Zambia and Zimbabwe) and in a regional workshop in Lusaka, Zambia to prioritize these technologies. With the exception of Zimbabwe, the meetings were well attended and went through a defined process to identify the technologies.

In both in-country meetings and the regional workshop the participants prioritized a range of options that were common. These were:

- Diversification (rotation and intercropping strategies)
- the use of drought-tolerant varieties
- Different forms of conservation agriculture seeding (ripping, direct seeding and basin planting)
- the use of organic manure
- Staggered planting
- Soil and water conservation

Irrigation and improved climate information services were often mentioned but the capital investments needed as well as the lack of infrastructure make this currently very challenging. This would require Governmental will to advance in the future.

The information gathered will inform the formulation of a feasibility study to be used as a base for developing a larger investment proposal for funding climate-smart agriculture in the region.

1. Introduction

The project "Out-scaling climate-smart technologies to smallholder farmers in Malawi, Zambia and Zimbabwe" aims to evaluate the impact of a changing climate on current farming systems. It will summarize existing knowledge of climate-smart agriculture (CSA) technologies available in the region to assess their ability to reduce the impact of climate stress on smallholder farmers. The combined efforts of partners from Zambia, Malawi and Zimbabwe, technically supported by CIMMYT and financed through CCARDESA by GIZ, has conducted a range of activities in the respective countries and target regions to gather the necessary evidence and response strategies for developing a large-scale, bankable out-scaling proposal for CSA in the region. This report summarizes activities around prioritization of climate adaptation strategies in Malawi, Zambia and Zimbabwe.

2. Approach

2.1 Prioritization of Climate Smart Agriculture Technologies

As farmers in southern Africa are strongly affected by climate change, it was important to assess the risks and hazards that farmers phase, how they affect smallholder smallholders biophysically and socio-economically and what adaptation strategies can be proposed to reduce these impacts on their livelihoods. This was done in a two-staged process in national and regional meetings.

2.2.1 Prioritization of technologies in in-meetings in Zimbabwe, Malawi and Zambia

Three meetings were held in the different countries involving key stakeholders from the areas including farmers. The stakeholders evaluated technologies based on their productivity, adaptation and mitigation potential and rated the technologies in a participatory group process. Participation and process varied between countries and a detailed report is given by country below.

2.2.1.1 Malawi

The Malawi in-country meeting was held on the 28th of July 2018 at the Zest Gardens Lodge. The meeting was chaired by Deputy Programme Manager for Machinga ADD and a total of 43 persons participated in the meeting. After the welcoming remarks the Co-PI introduced the project to members in an effort to create a uniform understanding. Members were informed that the gathering was aimed at prioritizing climate smart agriculture technologies. The process would inform an investment proposal document to be developed later in the year, covering a number of districts in Malawi which would be submitted to Donors for possible funding. Participants were taken through the approach adopted by the project which had the following activities:

- Vulnerability assessment
- Piloting – doubled-up legume practices were introduced in Mwansambo, Nkhotakota and Machinga ADDs
- Identification, prioritisation of CSA options
- Feasibility studies
- Investment proposal

Figure 1: Participants in the Malawi in-country prioritization workshop, 28th of July, 2018

The second Presentation was on the Vulnerability Assessment of the maize value chain in the smallholder farming system, conducted in the three target countries. Participants were informed that farmers already did their prioritisation in Lemu and Mwansambo areas. Some of the climate hazards identified included dry spells, heat wave, erratic season onset and flash floods.

The third presentation for the day was on Climate-smart Agriculture. The presenter introduced Climate-smart Agriculture as a concept built on 3 pillars namely:

- Productivity (sustainable increase)
- Mitigation (reduction of greenhouse gases)
- Adaptation

Once presentations were concluded participants were divided into 3 groups to go into working sessions to deliberate on technologies that were to form part of the proposal planned for development. A list of prioritized technologies is given below (Annex 1) for sub-humid and semi-arid conditions summarizing the group work.

2.2.1.2 Zambia

The Zambia socialization and prioritisation meeting was held on the 27th of July 2018 at the Protea Hotel in Chipata. The meeting attracted different categories of people as participants.

The Zambia meeting was opened by a prayer before proceeding to introductions and welcoming remarks. Once the introductory parts were concluded the day's proceedings commenced with a presentation to the gathering on the "*Out-scaling climate-smart technologies to smallholder farmers in Malawi, Zambia and Zimbabwe*" project. A presentation was given on the Vulnerability Assessment conducted under the Project in Chanje agricultural camp. A presentation was made on "Climate proofing for CSA technologies".

The ranking criteria for prioritizing technologies was explained and this would be based on the contribution of a particular technology towards the three pillars of CSA, namely; *Productivity*, *Adaptation* and *Mitigation*. A score ranging between 1 and 10 would be given depending on the group members' views, 10 representing the highest favoured option. The Zambia meeting was divided into participant districts for the purpose of prioritizing CSA options. Accordingly, the resultant groups were Sinda, Chipata and Lundazi (see Annex 1).

Figure 2: Participants in the Zambia in-country prioritization workshop, 29th of July, 2018

2.2.1.3 Zimbabwe

The Zimbabwe team facilitating the in-country dialogue opened the workshop with an elaborate explanation of the objectives of "*Out scaling climate-smart technologies to smallholder farmers in Malawi, Zambia and Zimbabwe*" project. They also highlighted the background of the project and importance of climate proofing the maize value chain in the three southern African countries (Malawi, Zambia and Zimbabwe). They shared some of the key findings with the participants from on-station long term trials and the Vulnerability Assessment that was carried out in Zaka district.

Key highlights of the discussions on Vulnerability Assessment

- The CIMMYT team presented the common climate hazards in the 2 communities of Zaka district which they have been exposed to from 1980 to 2018.
- Representatives from the department of meteorology, environment and disaster management stated that their trend analysis of rainfall for Zaka district also confirm the results. They also highlighted that their probability estimates show that moderate and severe droughts are highly likely in January to March in 3 out of every 10 years. Intra-season dry spells of more than 2 dekads are now a common phenomenon recurring in intervals of 2 to 4 years (two weeks after planting and at flowering). They also highlighted that the 2018 season had the longest dry spell in history that lasted for 41 days. In addition to an increased trend of dry spells and droughts, they also concurred with the finding that the onset of the rain season has become highly unpredictable.
- The Vulnerability Assessment results further demonstrated that a delayed onset of rain beyond the third week of December caused a complete failure of most crops from striga weed infestation. Farmers from the two communities echoed that for a successful season in their area it was important to time their planting dates such that crops reach flowering and maturity before striga weed infestation that commonly appear in February. Participants from the department of research services and the University of Zimbabwe supported these findings further highlighting that it is triggered by stress condition such as dry spells and depletion of soil nutrient at peak crop demand. They recommend promotion of adaptation strategies such as conservation agriculture with use of slow releasing organic fertilizers that improves soil fertility. The house concurred that improved access to climate services is also important in selection of climate smart technologies and practices that help address the problem.
- The results from the Vulnerability Assessment revealed that the magnitude of exposure to climate hazards for the two communities were different, though they were both in agro-ecological zone IV. Zishiri community was more prone to droughts and early termination of rains relative to Bvukururu. As a result of some observed difference in exposure to climate hazards of the two communities, particularly in rainfall patterns, participants suggested that climatologic characteristics could have changed or shifted. Therefore, the agro-ecological zones may not be as effective for identifying and developing adaptation strategies and supporting policy. They suggested revision to reflect current and future scenarios under climate change in order to develop more productive and sustainable farming systems according to prevailing conditions.
- Inter-annual and intra-seasonal climate variability were identified as the predominant risk factors for these rain-fed maize-based farming systems. These vagaries are usually accompanied by market risks or pest and diseases outbreak. For example, the communities stated that the 2017 season had good rainfall distribution (above normal) but the outbreak of the fall armyworm led to a drastic drop in maize crop yield. In the same regions, for farmers who were not affected by the pest, the increased crop production resulted in dramatic drop of maize prices.

2.2.2. Prioritization of technologies in a regional workshop

In a regional workshop held from August 7-9, 2018 in Lusaka, key stakeholder and Directors of Research and Extension were asked to go through a participatory prioritization and selection exercise following the "Climate Proofing Tool for SADC" developed by GIZ (Heine et al. 2016). The groups, divided by agro-ecology, brainstormed on available adaptation measures that lower the impacts of climate change in their areas and ranked them based on a range of criteria (effectiveness, costs, feasibility, political/social acceptance, relative speed of benefit, no regret potential, alignment with donor support and alignment with policy). Co-benefits of the technologies were identified as mitigation potential and gender sensitivity. The result of both in-country and regional workshop are summarized below.

3. Results

3.1 National Prioritization meetings

3.1.1 Results from Prioritizations in Malawi:

Group work done in Malawi resulted in different results (Annex 1). Group 1 prioritized diversification, intercropping and cover crops highest as adaptation strategies against climate change for both semi-arid and sub-humid conditions. Group 2 ranked the use of organic manure, early maturing and drought tolerant crops and crop diversification highest for semi-arid and for sub-humid conditions the use of organic manure, crop diversification and agro-forestry. Group 3 ranked CA, irrigation and DT varieties highest under semi-arid conditions; and ridging, dams, irrigation and CA highest under sub-humid conditions.

3.1.2 Results from Prioritizations in Zambia

In Zambia, the Sinda group prioritised ripping and drought tolerant varieties for both the semi-arid and sub-humid conditions (Annex 1). The Chipata group prioritised ripping and crop diversification for sub-humid conditions. The Lundazi group prioritised crop diversification for semi-arid conditions. Finally, the Lundazi group prioritised ripping and crop diversification for sub-humid conditions.

3.1.3 Results from Prioritizations in Zimbabwe:

In Zimbabwe, the participants prioritized basin CA integrated with mulching and compost/manure, crop diversification and varying maize varieties as the common most effective current adaptation strategies to manage climate shocks in Bvukururu and Zishiri communities.

Though small grains such as sorghum, finger and pearl millet used to be the most effective adaptation strategies widely adopted in their location about 20 years ago, labour and limited access to processing equipment and know-how were highlighted as the major constraint to their uptake. HIV/AIDS and migration of the most productive household members to towns/cities and neighbouring countries constrained continued use of this strategy.

The participants corroborated the perceived farmer adoption strategies, further highlighting limited access to timely reliable climate service to assist farmers in decision making as major deterrent to the adoption of climate smart practices and technologies. They also underscored the limited fusion of indigenous knowledge and science in developing adaptation strategies. It was noted during the discussions that there is a wealth of indigenous knowledge that help signalling the quality of the season but it is not passed on to the younger generation.

For the future, irrigation was identified as the most important adaptation strategy for these two communities and others in similar environments by the participants. However, due to the high capital requirements and strong local institution required to viably sustain the investment it required political will of the government. They emphasized that provision of timely reliable climate services and early warning information should be prioritized. Soil and water conservation (including various forms of conservation agriculture such as ripping and direct seeding) was ranked second followed by crop and livestock diversification. For crop diversification they emphasized use of drought tolerant varieties/crops. Improved crop livestock integration with particular focus on the development of livestock markets was highlighted in the discussions.

3.1.4 Summary of in-country meeting prioritizations

In general, with the exception of Zimbabwe, the in-country meetings were well attended, attracting a wide array of practitioners. Crop diversification, use of organic manure, early maturing and drought tolerant crops, various forms of Conservation Agriculture (ripping direct seeding and basins) were ranked highly in comparison to other options for managing climate vulnerability under semi-arid conditions.

In more sub-humid conditions the participants of in-country meetings ranked crop diversification, the use of organic manure, agro-forestry, various forms of CA (ripping, direct seeding) and drought-tolerant varieties highly in comparison to other options. Irrigation, was often mentioned but the high capital investment needed is a strong deterrent to its widespread adoption. Improved climate information services, as highlighted in the Zimbabwe meeting could make a huge difference to smallholders if they could get access to it in an affordable way.

3.2 Summary of the Regional Prioritization meeting

Participants of the regional workshop identified both single component technologies as well as more complex cropping systems (e.g. conservation agriculture) (Annex 2). The highest scoring adaptation strategies in most areas were diversification and intercropping as well as drought tolerant germplasm. This was followed by supplementary irrigation and conservation agriculture interventions. In one area (southern Zimbabwe/Southern Zambia), soil fertility management and pro-active risk management through staggered maize planting ranked also very high (Annex 2).

ANNEX 1: Summary tables of discussions held in Malawi and Zambia

Table 1: Group 1 feedback on technologies for semi-arid conditions, Malawi

CSA TECHNOLOGY	Productivity	Adaptation	Mitigation	Likelihood of uptake by farmers	Rank	Additional remarks
Crop rotation	yes	yes	yes	low	13	Land holding size
Mulching	yes	yes	yes	Medium	4	Conflict interests
Manure application	yes	yes	yes	Low	7	Long term result
Pit planting	yes	yes	yes	Medium	5	Initial labour intensive
Box ridging	yes	yes	yes	Medium	6	labour intensive
Cover crop	yes	yes	yes	High	3	Common practice
Minimum tillage	yes	yes	yes	Low	9	Used to conventional tillage
Intercropping	yes	yes	yes	High	2	Common practice
Crop diversification	yes	yes	yes	High	1	Common practice
DT Varieties	yes	yes	yes	Low	8	Affordability of seed
Enterprise diversification	yes	yes	Yes	Medium	10	Resilience mechanism
Catchment conservation	yes	yes	Yes	Low	11	labour intensive

Table 2: Group 1 feedback on technologies for sub-humid conditions, Malawi

CSA TECHNOLOGY	Productivity	Adaptation	Mitigation	Likelihood of uptake by farmers	Rank	Additional remarks
Crop rotation	yes	yes	yes	Low	5	Land holding size
Manure application	yes	yes	yes	Low	4	Long term result
Cover crop	yes	yes	yes	High	3	Common practice
Minimum tillage	yes	yes	yes	Low	6	Used to CT
Intercropping	yes	yes	yes	High	2	Common practice
Crop diversification	yes	yes	yes	High	1	Common practice
DT Varieties	yes	yes	yes	Low	9	Affordability of seed
Enterprise diversification	yes	yes	yes	medium	7	Resilience mechanism
Catchment conservation	yes	yes	yes	low	8	labour intensive

Table 3: Group 2 feedback on technologies for semi-arid conditions, Malawi

CSA TECHNOLOGY	Productivity	Adaptation	Mitigation	Likelihood of uptake	Additional remarks	Ranking
Mulching	√	√	√	√	Scarcity of mulching materials and competition with Livestock	6
Agroforestry	√	√	√	√		5
minimal tillage	√	√	√	√		4
permanent planting pits	√	√	√	x	Labour intensive	9
use of organic manure	√	√	√	√		1
swales	√	√	√	x	Labour intensive	11
planting cover crops	√	√	√	√		7
Box ridges	√	√	√	√		8
crop rotation	√	√	√	x	limited size of land	10
Early maturing and drought tolerant crops	√	√	√	√		2
crop diversification	√	√	√	√		3

Table 4: Group 2 feedback on technologies for sub-humid conditions, Malawi

CSA TECHNOLOGY	productivity	Adaptation	Mitigation	Likelihood of uptake by farmers	Additional remarks	Ranking
Storm drains	√	√	√	X	Activity requires collaborative efforts and needs implements to ease work	4
Agro-forestry	√	√	√	√		3
Use of organic manure	√	√	√	√		1
Crop rotation	√	√	√	X	limited size of land	5
Crop diversification	√	√	√	√		2

Table 5: Group 3 feedback on technologies for semi-arid conditions, Malawi

CSA TECHNOLOGY	**Productivity**	**adaptation**	**Mitigation**	**Likelihood of uptake by farmers**	**Additional remarks**	**Rank**
Mulching	√	√	√	Likely		9
Contour ridging	√	√		Likely		7
Agroforestry	√	√	√	Likely		6
Conservation agriculture	√	√	√	Likely		1
Drought tolerant crops & early maturing varieties	√	√		More likely		3
Manure making and utilization	√	√	√	Likely		8
Rain water harvesting techs (Pit planting & swales)	√	√		Not likely	labour intensive	5
Solar powered irrigation	√	√	√	Highly likely		2
Rearing of small stocks	√	√		Highly likely		4
Fish farming	√	√		Likely	cat fish	10
Multipurpose dams	√	√		Highly likely		3

Table 6: Group 3 feedback on technologies for sub-humid conditions, Malawi

CSA TECHNOLOGY	**Productivity**	**adaptation**	**Mitigation**	**Likelihood of uptake by farmers**	**Additional remarks**	**Rank**
Contour ridging	√	√		Likely		1
Agroforestry	√	√	√	Likely		6
CA	√	√	√	Likely		4
Manure making and utilization	√	√	√	Likely		7
Storm water drains		√		Less likely	labour intensive	9
Rearing of small stocks	√	√		Highly likely		5
Solar powered irrigation	√	√	√	Highly likely		3
Fish farming	√	√		Likely		8
Multipurpose dams	√	√		Highly likely		2

Table 7: Sinda Group feedback on technologies for semi-arid conditions, Zambia

CSA TECHNOLOGY	**Productivity**	**Adaptation**	**Mitigation**	**Likelihood of uptake by farmers**	**Additional remarks**	**Rank**
Basins	9	8	9	3	Labour-intensive	3
Ripping	9	9	9	9	Most farmers willing to use	1
Agroforestry	8	7	7	7	Trees like Msangu (Faidherbia albida) natural environment	5
Drought Tolerant Varieties	8	8	8	9	More varieties to be released to increase options.	2
Crop diversification	8	7	9	6	Intensify trainings	4
Integration of Conventional Ridge and furrow tillage	7	8	3	5	Laborious	
Dibble stick	9	7	8	7	More trainings	

Table 8: Sinda Group feedback on technologies for sub-humid conditions, Zambia

CSA TECHNOLOGY	**Productivity**	**Adaptation**	**Mitigation**	**Likelihood of uptake by farmers**	**Additional remarks**	**Rank**
Basins	8	8	9	3	Due to labour intensity it is undertaken lowly	4
Ripping	9	9	9	9	Commonly used and farmers are willing although implements are a challenge	1
Agroforestry	8	8	10	3	Labour-intensive, little knowledge	3
Drought Tolerant Varieties	7	8	9	9	More varieties to be released More information required.	2
Crop diversification	9	7	9	6	Intensify training	5
Integration of Conventional Ridge and furrow tillage	7	7	3	5	Laborious	
Dibble stick	9	5	8	2	Applicable in certain soils	
Organic Farming						
T. manure						

Table 9: Chipata Group feedback on technologies for sub-humid conditions, Zambia

CSA TECHNOLOGY	Productivity	Adaptation	Mitigation	Likelihood of uptake by farmers	Additional remarks	Rank
Basins	8	8	9	6	High initial labour	3
Dibble stick	5	3	4	2	Intensive labour	7
Ripping	9.5	9	9	7	less labour. More effective.	1
Agroforestry	8	7	8	5	Benefits are long-term.	4
Drought Tolerant Varieties	9	7.5	2	5	Seed is very expensive.	6
Crop diversification	8	8	9	9.5	Spreading the risks.	1
Crop rotation	8	8	8	8	Improves soil fertility.	2
Intercropping	4.5	6	8	9	Harvesting of more than one crop.	5

Table 10: Lundazi Group feedback on technologies for semi-arid conditions, Zambia

CSA TECHNOLOGY	Productivity	Adaptation	Mitigation	Likelihood of uptake by farmers	Additional remarks	Rank
Basins	7	8	9	4	Weed infestation high -Labour intensive Farmer have negative attitude towards technology	4
Dibble stick	4	8	6	8	-Farmers do not have oxen -Cultivate small hectarage	5
Agroforestry	9	8	10	7		2
Drought Tolerant Varieties	9	9	9	7		2
Crop diversification	8	9	9	9	It is effective in addressing climate change	1
Integration of conv. ridge and furrow tillage with maize	7	8	9	8	-Proper crop combination should be followed	3

Table 11: Lundazi Group feedback on technologies for sub-humid conditions, Zambia

CSA TECHNOLOGY	Productivity	Adaptation	Mitigation	Likelihood of uptake by farmers	Additional remarks	Rank
Basins	9	8	9	6	Weed infestation high -Labour intensive	3
CA Ripping	9	9	9	9	Limited availability of farm mechanization implements	1
Agroforestry	9	8	9	5	-Mechanization is reducing uptake of this technology	4
Drought Tolerant Varieties	9	9	8	6	-KKS 501 has low yields	3
Crop diversification	9	9	9	9		1
Integration of conv. ridge and furrow tillage with maize	8	8	9	8	-Proper crop combination should be followed -The ecosystem is well maintained	2

ANNEX 2: Results of the Regional Prioritization meeting, Lusaka, August 6-8, 2018

Table 12: Prioritized Options for Central Malawi, developed during Regional Meeting in Lusaka, August 6-8, 2018

Central Malawi Adaptation option	**Effectiveness**	**Cost**	**Feasibility for Farmers**	**Political/ social acceptance**	**Relative speed to benefit**	**No regret potential**	**Alignement to donor support**	**Alignement with Policy**	**Sum of score**	**Rank**	**weighted rank**	**Mitigation co-benefit**	**Gender Sensitivity**
DT varieties	5	4	5	5	5	5	5	5	**39**	**4.88**	**4.8**	0	+
Early Mat Varieties	5	4	5	5	5	5	5	5	**39**	**4.88**	**4.8**	0	+
Crop Diversification	5	4	5	5	5	5	5	5	**39**	**4.88**	**4.8**	+	+
Soil and Water Cons	5	4	4	3	5	5	4	5	**35**	**4.38**	**4.45**	+	0
CA/ CA with Trees	5	5	4	4	2	5	5	5	**35**	**4.38**	**4.3**	+	0
Irrigation Solar w pump	5	2	4	5	5	5	5	5	**36**	**4.50**	**4.2**	0	+
Landscape Resto	5	4	4	5	2	5	5	5	**35**	**4.38**	**4.15**	+	0
Local by-laws	5	3	4	5	3	5	5	5	**35**	**4.38**	**4.1**	0	0
Weather Forecasting	3	3	4	4	5	5	5	5	**34**	**4.25**	**3.95**	0	0
Policy Enforcement	5	2	4	5	3	5	5	5	**34**	**4.25**	**3.9**	0	0
Water Harvesting	4	2	3	4	5	5	4	5	**32**	**4.00**	**3.7**	0	+
Weather insurance	5	2	3	4	4	3	4	4	**29**	**3.63**	**3.5**	0	0

Table 13: Prioritized Options for Southern Malawi, developed during Regional Meeting in Lusaka, August 6-8, 2018

Southern MAL Adaptation option	**Effectiveness**	**Cost**	**Feasibility for Farmers**	**Political/ social acceptance**	**Relative speed to benefit**	**No regret potential**	**Alignement to donor support**	**Alignement with Policy**	**Sum of score**	**Rank**	**weighted rank**	**Mitigation co-benefit**	**Gender Sensitivity**
InterCropping	5	3	5	5	4	4	5	5	**36**	**4.50**	**4.35**	+	+
Crop Diversification	5	3	4	5	4	5	5	5	**36**	**4.50**	**4.25**	0	+
DT Vars	5	2	3	4	5	4	5	5	**33**	**4.13**	**3.85**	0	0
CA	4	3	4	4	2	4	5	5	**31**	**3.88**	**3.6**	0	+
Organic Manure	4	3	3	4	4	4	2	5	**29**	**3.63**	**3.55**	-	0
Supplementary Irrigation	5	1	2	4	5	5	5	5	**32**	**4.00**	**3.55**	0	0
Cap Building	4	1	5	4	1	3	5	5	**28**	**3.50**	**3.15**	0	+
IPM	3	1	2	3	4	4	3	4	**24**	**3.00**	**2.7**	0	0
Agro Met Info Sharing	2	1	4	4	2	2	4	5	**24**	**3.00**	**2.55**	0	0
Small livestock production	4	1	1	4	3	2	4	4	**23**	**2.88**	**2.45**	-	+
Rainwater Harvest	4	1	2	2	3	3	1	3	**19**	**2.38**	**2.45**	0	-
Policy Implement	2	1	2	3	1	2	5	5	**21**	**2.63**	**2**	0	0

Table 14: Prioritized Options for Eastern Zambia, developed during Regional Meeting in Lusaka, August 6-8, 2018

Eastern ZAM Adaptation option	Effectiveness	Cost	Feasibility for Farmers	Political/ social acceptance	Relative speed to benefit	No regret potential	Alignement to donor support	Alignement with Policy	Sum of score	Rank	Weighted rank	Mitigation co-benefit	Gender Sensitivity
InterCropping Maize and pigeon pea	3	4	5	5	5	5	4	5	**36**	**4.50**	**4.35**	0	+
Staggering Planting Dates	3	5	5	5	4	4	3	3	**32**	**4.00**	**4.15**	0	0
Drip Irrigation	5	3	3	5	5	5	3	5	**34**	**4.25**	**4.1**	0	+
DT, HT varieties	3	3	4	5	5	5	5	5	**35**	**4.38**	**4**	0	+
CA	4	4	4	3	3	5	5	5	**33**	**4.13**	**4**	+	+
Early Warning Systems	2	5	5	4	2	4	5	5	**32**	**4.00**	**3.8**	0	0
Overhead Irrigation	5	1	2	5	5	5	5	5	**33**	**4.13**	**3.6**	-	0
AgroForestry	5	3	3	3	2	3	5	5	**29**	**3.63**	**3.45**	+	+
Water Harvesting	5	2	2	3	3	4	5	5	**29**	**3.63**	**3.3**	0	+

Table 4: Prioritized Options for Southern Zimbabwe/South Zambia, developed during Regional Meeting in Lusaka, August 6-8, 2018

Southern ZIM-ZIM Adaptation option	Effectiveness	Cost	Feasibility for Farmers	Political/ social acceptance	Relative speed to benefit	No regret potential	Alignement to donor support	Alignement with Policy	Sum of score	Rank	weighted rank	Mitigation co-benefit	Gender Sensitivity
Staggard planting	4	5	3	5	5	5	5	5	**37**	**4.63**	**4.40**	0	0
Soil Fert Mgt	5	3	4	5	4	4	5	5	**35**	**4.38**	**4.15**	+	+
Cap Buidling on CSA	5	2	4	5	4	5	5	5	**35**	**4.38**	**4.05**	0	+
Soil and Water Conservation	5	3	4	3	3	5	5	5	**33**	**4.13**	**4.00**	+	+
DT-HT varieties	5	2	4	4	4	4	5	5	**33**	**4.13**	**3.90**	0	+
Livelihood Diversification	5	3	4	4	3	3	5	4	**31**	**3.88**	**3.80**	0	+
ICT Info Mgt	5	2	3	4	4	5	5	5	**33**	**4.13**	**3.80**	0	0
Irrigation Systems	5	1	3	3	2	5	5	5	**29**	**3.63**	**3.25**	0	0
Water Harvesting	5	1	3	3	2	3	4	5	**26**	**3.25**	**3.00**	0	0