

ideas to impact.



THE CLIMATE INFORMATION PRIZE: WHAT HAPPENED NEXT?

FINAL REPORT

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ABOUT IDEAS TO IMPACT

Ideas to Impact is an action-research programme funded by UK Aid delivered by the Department for International Development (DFID).

Ideas to Impact designs and runs innovation prizes to incentivise contestants to find solutions to challenges faced by the poor in low-income countries. These include access to clean energy, water and sanitation, transport and climate change adaptation, in Africa and South Asia.

The programme tests the value of prizes as a non-traditional mechanism to spur behaviour change and socioeconomic development. It has been delivered by an IMC Worldwide-led consortium and evaluated by Itad.

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DISCLAIMER

The views expressed in this report are those of the evaluators. They do not represent those of IMC or of any of the individuals and organisations referred to in the report.

Contents

Summary	3
Introduction	6
Section 2: Approach to the assessment	9
Section 3: Climate information in Kenya	10
Section 4: Have the Prize initiatives been sustained?	11
Section 5: Influence of the Prize on ongoing activities	28
Section 6: Navigating the innovation valley of death	30
Conclusion	31
References	32
Annex 1: Sample groups engaged	33
Endnotes	34

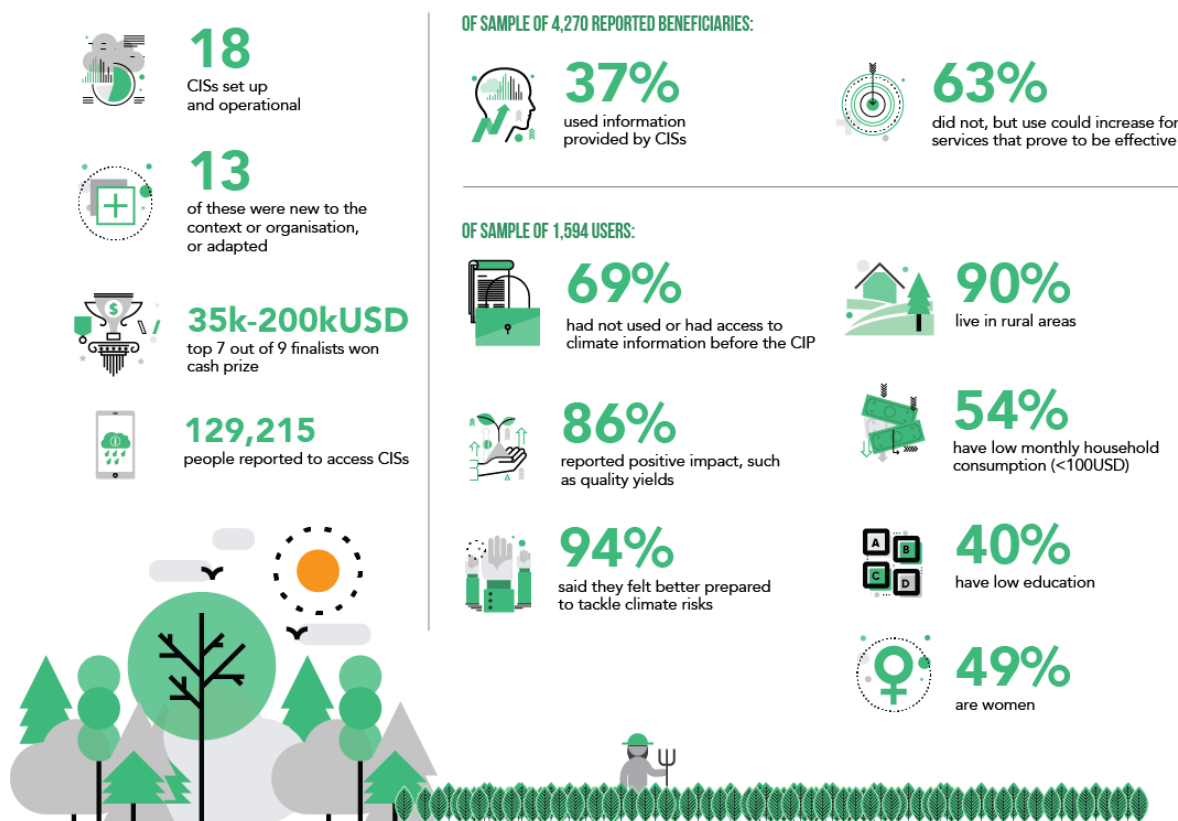
List of acronyms

CBO	Community-based Organisation
CIP	Climate Information Prize
CIS	Climate Information Service
CMD	County Meteorological Directors
I2I	Ideas to Impact
KARI	Kenya Agricultural Research Institute
KIRDI	Kenya Industrial Research and Development Institute
KMD	Kenya Meteorological Department
NGO	Non-governmental Organisation
SMS	Short message service
SOFDI	Sustainable Organic Farming and Development Initiatives

Summary

The Climate Information Prize (CIP) sought to incentivise the development and implementation of innovative Climate Information Services (CISs) for poor and vulnerable people in Kenya. The Prize was launched in 2015 and was awarded in November 2018. An evaluation of the Prize was delivered shortly after the Prize award.¹ This examined the Prize results and outcomes of the innovations delivered by the non-governmental organisations (NGOs), community-based organisations (CBOs), and social entrepreneurs who participated in the Prize. The summary outcomes are depicted in Figure 1.

Figure 1: Summary outcomes of the CIP



A year from Prize close and nine months from award, we followed the evaluation with a brief follow-up assessment, to understand if the Prize initiatives and effects were sustained in the year following the award. We found that the majority of initiatives are still being implemented with climate information being delivered to an increased number of potential users.

This report delivers the findings of our assessment. We explore sustainability in the year following the prize through several dimensions – service development, service use, resource access and generation, organisational development and policy engagement. We use this to understand whether and how participants have sustained or scaled their initiatives, and similarly if they have discontinued or scaled them down. We use our findings to reflect on the effect of the Prize in supporting participants to navigate and overcome two innovation ‘valleys of death’: – including the early-stage ‘valley of death’ and the commercialisation ‘valley of death’, representing commonly identified skills and finance gaps where an innovation often fails and therefore does not move to scale (X Prize Foundation, 2012). Though more

¹ See: [The Climate Information Prize: Tekeleza \(Stage 2\) Final Evaluation Report](#) (Stott and Brown, 2019).

commonly used for assessing technological rather than service innovations, this model can provide a useful tool for considering longer term sustainability of innovations.

We explore the observed changes in the field of climate information in Kenya, the ongoing implementation activities of the Prize projects, and the influence of the Prize on those changes and activities before reflecting on participants' navigation of the valley of death. Overall, the sustainability assessment provides strong evidence that Prize outcomes and effects can be sustained after a Prize closes. This relies on concerted effort and motivation from participating organisations.

Changes in climate information in Kenya

We find that **participants are delivering their CISs in a largely similar context to that which existed during the Prize.** While interviewees suggested there is increasing awareness about climate information in Kenya, and improved efforts to reach users, partly as a result of the Prize; many participants have observed little change through their experience of working on the ground.

It appears that the influence of the CIP on changes to climate information provision in Kenya has largely been observed at project level, rather than sector level. This is through the ongoing activities of participants subsequent to the Prize.

Sustaining CIS activities on the ground

Ongoing participant activities relate to their continued development of their CISs approaches; changes in their user base; their access to and generation of resources; their investment in their organisational development and their engagement with policy processes.

We find that 15 of the Prize's 18 final participants have continued implementing their initiative since the Prize closed. This includes all seven cash prize winners of the CIP, as well as the two additional finalists and six non winners. Of these, 12 participants scaled their initiative, one maintained their CIS, delivering as they were during the Prize period, two scaled back and two discontinued.

While the Prize provided the space for participants to develop a concept, they have invested in identifying ways of improving their service before rolling it out further. Participants have scaled their initiative in different ways. Interestingly, many of the winners have focussed on developing and refining their service in the year since the Prize closed, ahead of scaling it to an expanded user base, through exploring alternative data options, considering further how to deliver this data for the benefit of users and adjusting their communications approach to suit their service and their user community.

The number of people with access to climate information through the CIP innovations has increased. However, where participants have scaled up, they have largely done this within the contexts they were originally working in: geographical reach remains the same for most, as does user type, importantly, including the reach to poor and vulnerable people.

Resources remain the key barrier for participants in sustaining and scaling their initiative, as noted in particular by those who have maintained, scaled back, or discontinued their service. Participants reported finances as the key barrier to having further developed or expanded their services.

Some participants are ensuring longer-term financial sustainability of their initiative through introducing user fees for information and other services. However, beyond this, there is little evidence that participants have secured sustainable funding approaches, in the year following the prize, instead relying on prize winnings, donor funding and voluntary or pro-bono inputs to continue their activities. While such inputs might enable participants to continue implementing their initiative until they are able to secure longer-term, more sustainable funding, we consider them of themselves not to be sustainable.

Participants invested time and resources into developing their organisation, addressing their structure, capabilities and partnerships to enable them to better deliver their CIS. A few participants developed

their organisational structure and skills in line with scaling their CIS. In addition to the data providers, participants are working with communities and government to deliver their CISs. This has enabled them to extend and improve their service delivery.

Policy engagement does not appear to be a key priority for participants in their CIS activities, though there are a couple of examples of participants realigning their service to local policies, and working more closely with government to gain reciprocal support in climate information provision.

The influence of the Prize on participants' ongoing activities

Reflections from participants reveal that **the Prize had some influence on the subsequent activities of participants, including those who established their CIS specifically for the Prize, and those who had already established their CIS ahead of the Prize.** The key beneficial influences of the Prize were on participants' approach to service delivery, supported by the skills and knowledge provided by the Prize, their visibility as a result of participating in the Prize and the connections they made through the Prize. Participants also explained that the value of the Prize was in further motivating them to deliver their CISs.

While the Prize awards supported participants in furthering their initiative, the Prize does not appear to have had a significant influence, yet, on ensuring long-term financial sustainability for participants. Considering the innovation valleys of death, the evidence we have on activities since the Prize finished indicates that participants have not yet successfully navigated the commercialisation 'valley of death'. The evidence suggests that the CIP was more relevant for the early-stage 'valley of death' where, subsequent to the Prize, final participants had a proof of concept, having implemented their CIS for 18 months, and seven participants were awarded a cash sum, which they chose to use to take their innovation further.

We propose that the effects of the Prize could potentially be emphasised, to further support Prize participants in their activities post-prize, by investing in activities specifically designed to enhance and sustain effects at sector level, and to further boost the progress made by participants – for example through awareness building among sector stakeholders, facilitating investor connections and providing mentorship to participants where needed.

Introduction

1.1 The Climate Information Prize

The Climate Information Prize (CIP) sought to incentivise the development and implementation of innovative Climate Information Services (CISs) for poor and vulnerable people in Kenya. The Prize was launched in 2015 and was awarded in November 2018. It was one of a number of innovation prizes under Ideas to Impact (I2I) – a UK Department for International Development (DFID)-funded programme, delivered by IMC Worldwide. The programme was established to test the value of using innovation prizes to achieve international development outcomes, often to encourage people to act differently over months or years.

The CIP was designed by the project team consisting of IMC (prize management), Blue Globe (prize advisory) and the Institute of Development Studies (IDS), UK (adaptation technical lead). It was implemented by this consortium, with Cardno International as the local implementation partner.

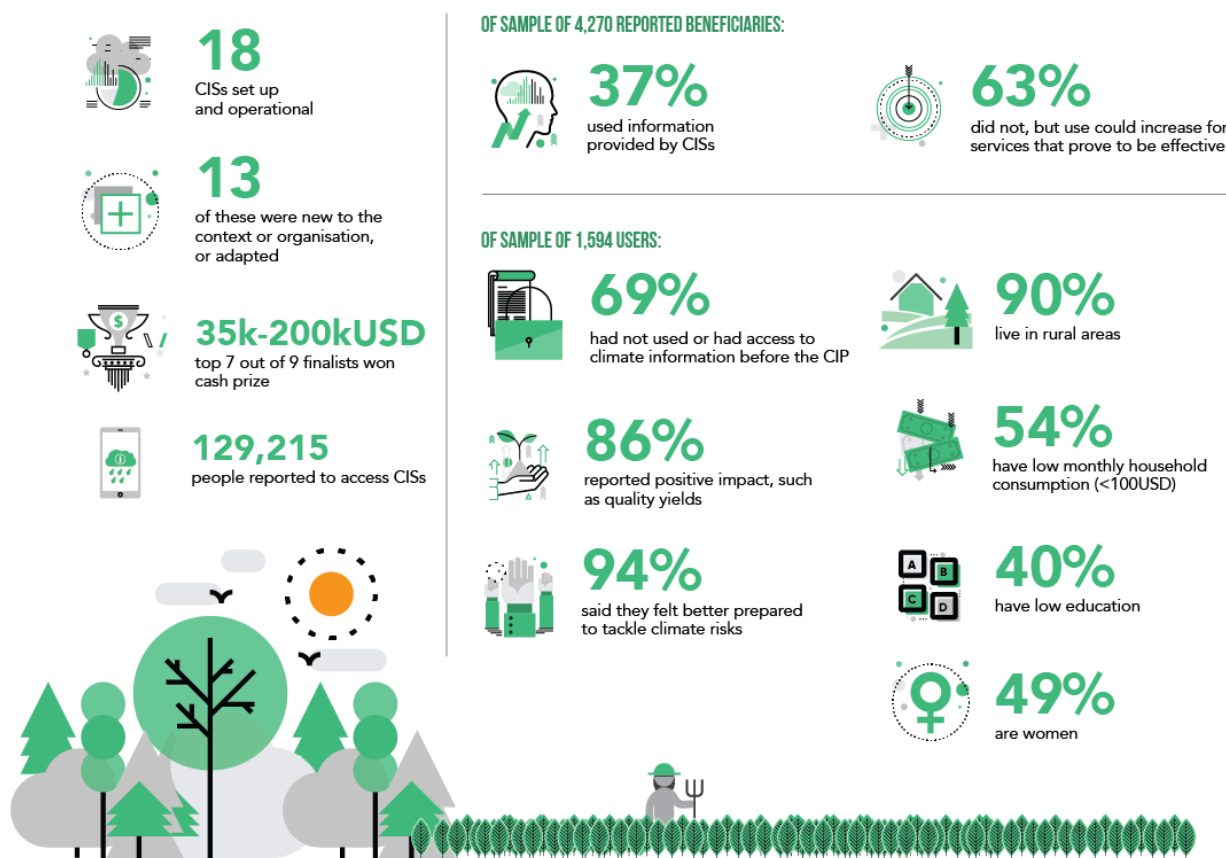
There were 27 participants to the Prize, of which 19 implemented their CIS until the end of the prize period and 18 submitted completed final reports. The participants delivered their services by accessing available climate and weather data, translating it into a useable format, and delivering it to target users through mobile phones, including SMS and mobile applications; radio; websites; and face to face meetings. Alongside climate information, participants also often provided agricultural advisories to enable users to act upon the information received. Of the 18 who submitted reports at the end of the implementation period, 9 were shortlisted as finalists and 7 received a cash award (see Figure 2).

1.2 The CIP evaluation

Itad is supporting I2I to understand if the innovation prizes delivered under the programme worked as intended. We explored the effects and outcomes of the CIP in the main evaluation report: [The Climate Information Prize: Tekeleza \(Stage 2\) Final Evaluation Report](#) (Stott and Brown, 2019). This examined the Prize results and outcomes of the innovations delivered by the non-governmental organisations (NGOs), community-based organisations (CBOs), and social entrepreneurs who participated in the Prize.

A set of summary outcomes is depicted in Figure 2, and discussed in the main evaluation report.

Figure 2: Summary outcomes of the CIP



1.3 The CIP sustainability assessment

The follow-up assessment of the main evaluation helps us to understand whether and how the Prize initiatives and effects were sustained in the year following the award. This assessment responds to I2I's Programme Evaluation Question 2, exploring the extent to which prize effects are sustained beyond the point of award.²

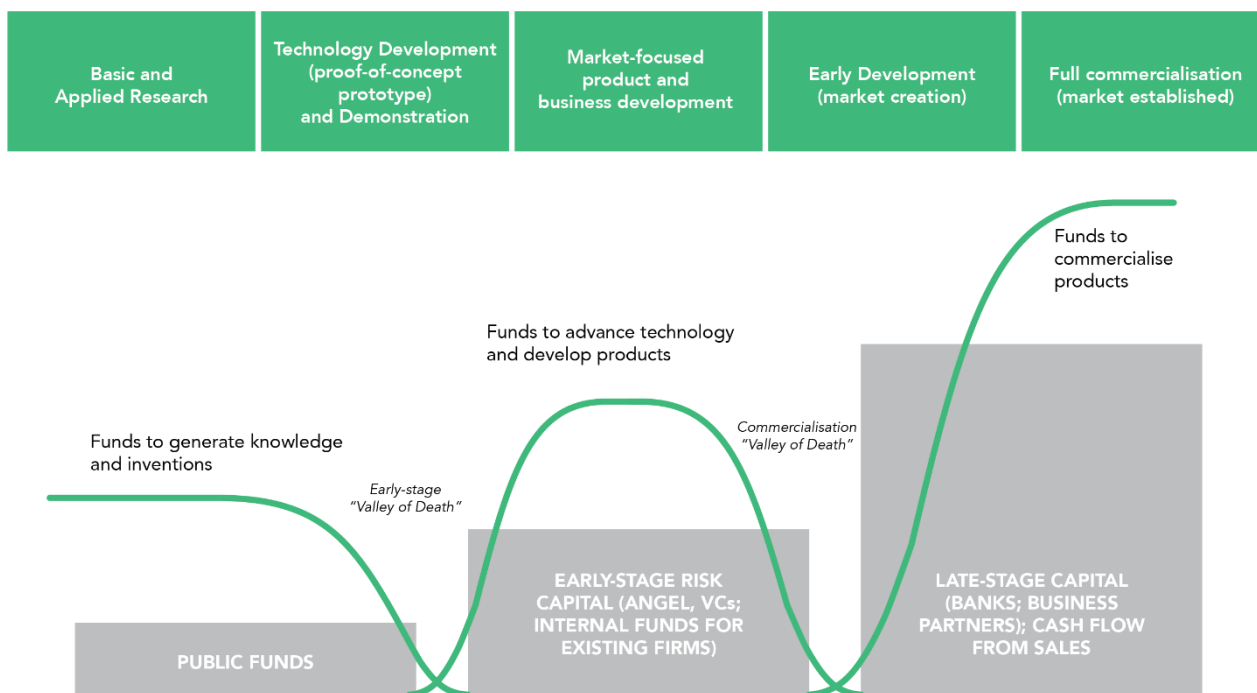
Within this assessment, we explore evidence for sustainability and scale in the year since the Prize closed, through several dimensions – service development, service use, organisational development, policy engagement and resource access and generation. We identify where projects have been discontinued, scaled back, maintained or scaled. For this, we adopted a broad definition of scaling to include scaling out to new areas or increased user numbers, scaling up to deeper partnerships and policy, and scaling through skills and technology development.

We also consider participants' progress against the innovation 'valleys of death'. I2I's business case proposed that prizes had the potential to address the valleys of death within the innovation process, and that they could overcome commonly identified gaps where an idea or technology often fails and therefore does not move to scale (DFID, 2013). These gaps relate to both the finance and the skills to

² Programme Evaluation Question 2: To what extent has the effect of the Prize been sustained beyond the point of award?
CIP sub-evaluation question: To what extent have i. CIS innovations; ii. awareness of the value and benefits of climate information, been sustained beyond the end of stage 2?

take the idea to the next stage. Figure 33 depicts the innovation valleys of death, depicting two valleys – including the early-stage ‘valley of death’ and the commercialisation ‘valley of death’.

Figure 3: The Innovation Valleys of Death (Source: X Prize Foundation, 2012)



The CIP was initially envisaged as a mechanism that would incentivise participants to leverage the resources to develop a new technology and a corresponding business model, while also meeting the needs of the most poor and vulnerable. The ‘valleys of death’ provide a useful model to understand how participants progressed their innovations during and as a result of the Prize, though it is not the last work on success in ensuring sustainability of the initiatives. This model is most relevant to private sector participants, rather than the NGOs and CBOs. The first to fourth place winners of the Prize are now all private sector businesses or social enterprises, the runners up represent NGOs and CBOs and those who submitted represent all three organisation types.

From the main evaluation, it is apparent that the CIP is most relevant for the early-stage valley of death, where, subsequent to the Prize, winning participants had a proof of concept, having implemented their CIS for 18 months and received a cash sum, which they could use to take their innovation further. At the end of this report, we consider the progress made by participants in navigating these innovation barriers since the Prize finished.

1.4 Content of the report

In this report, we first outline the approach used for the assessment (Section 2), we then report changes in the field of climate information in Kenya, as observed by interviewees (Section 3). We then explore the ongoing implementation activities of the Prize projects (Section 4), and the influence of the Prize on those changes and activities (Section 5). Finally, we reflect on the navigation of the valley of death (Section 6) and draw some final conclusions (Section 7).

Section 2: Approach to the assessment

To inform this assessment, we completed interviews in September 2019 with most of the final participants of the Prize (17 out of 19³ or 89%), the local Prize Team (one organisation or 100%), live judges (three out of four or 75%) and other sector stakeholders (two out of four contacted, or 50%) (see Annex 1 for the sample groups engaged in interviews).

Where possible, we have triangulated the responses provided to develop our findings. This was not possible where participants were talking about their own projects – instead here we provide information based on individual perspectives and insights on their activities.

We recognise two key limitations to be considered while reading the report findings:

- **We rely on a limited evidence base to make this assessment.**

There was little documentation available to support this assessment, and we instead relied on qualitative information collected from a small group of stakeholders. This is partly due to the interviews conducted being proportionate to the resources available for this exercise; but also due to the fact that there we were working with small sample frames – i.e. those involved in the prize during its implementation period. Although the number of respondents is small, we have mostly reached saturation point in terms of who else is sufficiently knowledgeable of the Prize and could have been interviewed (see Annex 1). This is with the exception of a couple of participants, a live judge and a few sector stakeholders who were involved in the Prize but not available for interviews.

This means that rather than providing generalisable findings, we aim to provide insights based on stakeholder perspectives.

We present the insights from these small-n samples in a transparent manner, so where findings are based on the views of one or two stakeholders, this is made clear. The unique identification number of interviewees whose responses were used to inform a finding are referenced after each finding as an endnote. Specific numbers of interviewees providing information from each finding can be obtained from these endnotes where not specified in the text.

- **We do not have access to verified data to corroborate information reported in interviews.**

In the main evaluation, we were able to draw from the verification survey of users done as part of the Prize verification process. Though we asked participants for feedback on their users, and specifically how their user base had changed, as a rapid and small-scale exercise, we were not able to collect data directly from users for the purposes of this assessment. This means that our results are focussed on potential access to, rather than verified use of, the CISs. The figures on user numbers should be read with caution.

This report provides a snapshot of the activities and changes observed since the Prize award. We note that after a year, it is not possible to assess long-term sustainability, but rather how the effects have been sustained in the year after the Prize and indications of pathways towards longer-term sustainability.

³ This includes 18 participants who submitted eligible final submissions and one who submitted an incomplete submission.

Section 3: Climate information in Kenya

We explored the wider field of climate information in Kenya, to see what changes had been observed by interviewees since the Prize finished. This was to understand the context within which participants are now implementing their CISs, as well as any influence the Prize was observed to have on that context.

Participants are delivering their CISs in a largely similar context to that which existed during the Prize. While interviewees suggested there is increasing awareness about climate information in Kenya, and improved efforts to reach users, partly as a result of the Prize, many participants observed little change through their experience of working on the ground.

Interviewees provided some limited insights into how the field of climate information is changing in Kenya. They reported **a greater awareness of climate information in Kenya, including more awareness on the importance of weather and climate information.**ⁱ This is particularly at local level with, for example, more discussions on climate information observed,ⁱⁱ and greater interest and demand from users.ⁱⁱⁱ One participant also noted that the projections delivered by the Kenya Meteorological Department (KMD) had improved.^{iv}

There are increased efforts to reach users of climate information at ground level. This includes, for example, efforts to connect global to regional to national through collaboration between the UK Meteorological Office, Intergovernmental Authority on Development Climate Prediction and Applications Centre (ICPAC) and KMD, now reaching county level and end users.^v At county level, interviewees have observed increased engagement of County Meteorological Directors (CMDs) with users.^{vi} However, one interviewee highlighted that there is variable involvement of CMDs between counties, some being unavailable while others being more involved.^{vii} In terms of the private sector, one interviewee proposed that mobile phone access and involvement by mobile phone companies such as Safaricom is increasing the reach to users.^{viii} However, two interviewees noted that language still poses a barrier to reaching users. In a country where approximately 70 different languages are used, they noted that climate information is often disseminated in Swahili or English,^{ix} restricting the capacity of users to access and use the information disseminated.

Seven of the 17 participants interviewed explained that they have observed little change in climate information provision in Kenya since the Prize finished, based on their on-the-ground experience.^x This suggests that the changes observed by some, as noted above, are not having a uniform reach to all stakeholders involved in climate information dissemination and use. Interviewees indicated that they have observed little change in KMD's approach and limited implementation of existing climate change policies.^{xi} A couple of interviewees suggested a lack of prioritisation in the dissemination of information to end users by the KMD, paired with a limited budget.^{xii} One of these interviewees proposed that private sector and government entities could step up their role in delivering climate information, supporting the NGOs that are largely relied upon to do this.^{xiii} Three interviewees suggested that KMD could improve their approach by collaborating with others,^{xiv} for example, CMDs, as their county level counterparts; climate information users; and other government departments. Such insights require further investigation to fully understand the changes, disparities and opportunities across Kenya.

The influence of the CIP on changes to climate information provision in Kenya has largely been observed at project level, rather than sector level. Interviewees noted that the CIP primarily influenced the Prize participants, and it is their activities that hold the potential for impact of the Prize on climate information in Kenya, if they are sustained.^{xv} This impact is through improving linkages between communities and available climate information.^{xvi}

Section 4: Have the Prize initiatives been sustained?

Fifteen of the final participants have continued implementing their initiative since the Prize closed. This includes all seven cash prize winners of the CIP, as well as the two additional finalists and six non winners. One additional participant⁴ has continued to develop their CIS technology since the Prize closed. Of the final participants, 12 have scaled their initiative, one has maintained their CIS, delivering as they were during the Prize period, two have downscaled and two have discontinued.⁵ Table 1 summarises the key activities of participants since the Prize finished and provides an assessment of what this indicates for the sustainability of their initiative.

The majority of participants, including all awarded organisations, have scaled their initiative since the Prize closed. Participants have done this in different ways. Interestingly, many of the winners have focussed on developing and refining their service in the year since the Prize closed, ahead of scaling it to an expanded user base, for example through developing their technological platforms and building their partnerships. This suggests that while the Prize enabled them to test a concept, they have identified ways of improving their service before rolling it out further.

Resources remain the key barrier for participants in sustaining and scaling their initiative, as noted in particular by those who have maintained, scaled back, or discontinued their service. Participants reported finances as the key barrier to having further developed or expanded their services.

In this section, we explore how participants have developed their CISs (service development); changes in their user base (service use); how participants have been accessing and generating resources to enable their continued delivery (resource access and generation); how they have invested in their organisations (organisational development); and how they have been engaging with policy processes (policy engagement), since the Prize closed.

4.1 Service development

Since the Prize closed, participants have invested time in developing their CISs, through exploring alternative data options, considering further how to deliver this data for the benefit of users and adjusting their communications approach to suit their service and their user community. Improved approaches can enhance the quality and usability of services for users, increasing demand and thereby supporting sustained implementation and use.

Participants have sought climate and weather data from a diversified range of sources since the Prize finished, and some have started to access more localised climate data. The majority of participants continue to use the Kenya Meteorological Department (KMD) as their main data provider,^{xvii} accessing this at both county and national level.^{xviii} Two participants noted increased responsiveness from KMD since winning the Prize.^{xix} However, four note ongoing difficulties in accessing data from KMD, including, for a couple of non-winning participants, the costs involved in accessing data.^{xx}

Since the Prize closed, participants have been accessing a more diversified range of additional sources including data from international sources, such as aWhere, AccuWeather, IBM and the UK Meteorological Office; from national sources, such as the Kenya Agricultural Institute (KARI), the Famine Early Warning Systems Network (FEWS Net), and the National Drought Management Authority (NDMA); and from local sources, including indigenous leaders and personal weather equipment. Some of these data sources, such as aWhere,⁶ are payment based, however two participants have agreed arrangements for pro bono or subsidised data provision, for a limited period of time whilst they establish their business.^{xxi}

⁴ Who submitted a report but was not included in the final 18 as it was not eligible.

⁵ We were not able to get an update from the final participant.

⁶ aWhere (<https://www.awhere.com/>) is a United States based organisation that provides localised climate data and agricultural information on a global scale.

Table 1: Overview of CIP projects and activities since Prize close

Organisation	Project	Organisation type	CIS establishment	Prize Outcome	Key CIS activities reported since Prize close	Assessment
Initiatives scaled						
Farmers Pride	Last mile connectivity through agro-dealer franchise model	Private sector business	CIS established in response to the Prize	First Prize (\$200,000)	Integration of CIS component into broader commercial activities and technology of the organisation. Expansion of franchise, user base and partners. Piloting of user fees.	Initiative scaled
Ukulima Tech Ltd	Climate Smart Agriculture	Private sector/social enterprise	Existing CIS expanded in response to the Prize	Second Prize (\$75,000)	New office opened in Nairobi. Development of CIS approach, working with new partners and data source, exploring commercial development for ongoing sustainability. Slight expansion of user base. Plans to introduce user fees.	Initiative scaled
SmartAg Kenya	SmartAg	Private sector business	Existing CIS expanded in response to the Prize	Third Prize (\$75,000)	Development of CIS approach and partnerships to inform approach. Expansion of geographical coverage. New office opened in Nairobi. Plans to introduce user fees.	Initiative scaled
Akigakin-Akamu Infoserve Community Based Organisation	Local Weather Advisory Systems & Information (LWASI) ⁷	Private sector business (CBO during prize and have since transitioned to business)	Existing CIS expanded in response to the Prize	Forth Prize (\$50,000)	Changed name, focus and strategy of initiative. Expansion of user base, organisational development, and alignment with local policies and plans. Charges user fee of KES1000 per user group per year.	Initiative scaled
Community Sustainable Development Empowerment Program (COSDEP) Self	Climate Information and Awareness to Smallholder Farmers	CBO	Existing CIS expanded in response to the Prize	Runner Up (\$35,000)	Expansion of user base and geographical coverage to new sub-county. Focus on poor and people with disabilities. New rural office opened. Input to local government agricultural policies and activities. Has introduced user fee of KES100 per month for service	Initiative scaled

⁷ Previously: Smart Weather Community (M-Sweco)

Organisation	Project	Organisation type	CIS establishment	Prize Outcome	Key CIS activities reported since Prize close	Assessment
Help Group (SHG)						
African Technology Policy Studies Network (ATPS)	Improving Agricultural Productivity and Climate Change Resilience Using LandInfo mobile app	NGO	Existing CIS, some additional funding and partnership activities due to the Prize	Runner Up (\$35,000)	Largely maintained CIS within Kenya, focussing on user feedback for improvement and continuing work with government institutions. Scaling work external to Prize activities, with continued focus on countries beyond Kenya. Generates revenue through charging for training on use of application.	Initiative scaled
Sustainable Organic Farming and Development Initiatives (SOFDI)	Adapting to Climate Change through Farmer Capacity Building	NGO	CIS established in response to the Prize	Runner Up (\$35,000)	Expansion of user base, at individual and institutional level, in same counties. Increased engagement with government, inputting to government plans and working with government to deliver CIS. No user fees reported, relies on donations from private foundation.	Initiative scaled
Climate Information Pastoral Unit	Sensitisation of pastoral community on climate change and early warning system	CBO	CIS established in response to the Prize	Submitted final report	Expansion of user base and geographical coverage. Increased variety of data sources, and increased team size. Plans to introduce user fee.	Initiative scaled
Kiangure Springs Environment Initiative	Enhancing Value Chain Actors Accessibility to Climate Information in Nyeri County	CBO	Existing CIS, used Prize platform to increase outreach	Submitted final report	Expansion of user base and engagement with new partners and government. Plans to introduce user fee.	Initiative scaled
Mukingi Based Organisation	Mukingi Climate Information Users	CBO	Existing CIS, Prize motivated continued action	Submitted final report	Expansion of user base, new activities and new partners. No user fees currently charged.	Initiative scaled

Organisation	Project	Organisation type	CIS establishment	Prize Outcome	Key CIS activities reported since Prize close	Assessment
Nyangorora Banana Processors	Dissemination of Climate Information and Associated Services	Private sector business	CIS established in response to the Prize	Submitted final report	Expansion of user base, focussing to a greater extent on commercial farmers and partnering with others for financial sustainability. No user fees reported.	Initiative scaled
Nano Investment Group.	Climate Information Mobile App (C.I.M.A)	Private sector business	Existing CIS, modified in response to the Prize	Submitted final report	Expansion of user base, promoting with leaflets distributed by volunteers, unable to proceed with developing their own application. No user fees reported.	Initiative scaled
Initiatives maintained						
Climate Change Research and Advisory Centre	Nakuru County Climate Information Services	Private sector business	Existing CIS, expanded in response to the Prize	Finalist	Scaled back extension services but continue to deliver CIS, with increased user base. No user fees reported.	Initiative maintained
Initiatives scaled back						
Urafiki Wa Kutoa Misaada Ya Kimataifa - Kenya	KARASHA-Mobile Phone Enabled Climate Information Service	NGO	CIS established in response to the Prize	Finalist	Scaled back CIS, reduced user base. Charge user fee per message.	Initiative scaled back
Byteblade Systems	Data Logic	Private sector business	Existing CIS, modified in response to the Prize	Submitted final report	Continued CIS delivery but reduction in number of training centres. No user fees reported.	Initiative scaled back
Initiatives discontinued						
Circle Time Initiative (CTI)	G-Power	CBO	CIS established in response to the Prize	Submitted final report	CIS discontinued to focus on priority activities which did not include climate information – this element only included in response to the Prize. Did not seek user fees. Transferred data base of user details to CMD to continue to support information provision.	Initiative discontinued

Organisation	Project	Organisation type	CIS establishment	Prize Outcome	Key CIS activities reported since Prize close	Assessment
Times Intel Limited (TIL)	Mavuno Digital App.	Private sector business	Existing CIS, Prize motivated continued action	Submitted final report	CIS discontinued - Prize initiative formed component of PhD, which is now complete, so no further funding available. Bursary received which they may use to influence associated policy.	Initiative discontinued
Assessment not possible						
Emyian Organisation	Community Dialogues on the use of Climate Information	NGO	Existing CIS, modified in response to the Prize	Submitted final report	No information provided	Assessment not possible

Participants also reported increased use of localised data from these sources. For example, from aWhere^{xxii} and KARI.^{xxiii} A couple of participants are also downscaling the data they receive themselves, to provide more localised information.^{xxiv} For example, one runner up invested some of their Prize money into equipment such as rain gauges and small wind vents, to enable them to further localise county level scientific information they receive from their CMD, for users.^{xxv}

Interviewees flagged that this preference for more localised data comes in the context of the limited data specificity received from KMD.^{xxvi} While KMD provide county level forecasts, there is much variety within the counties and a blanket forecast is often not suitable for users' needs. Conversely, aWhere, for example, can provide localised data within a 2km² radius from the farmer's location.^{xxvii} The two participants using aWhere data have also put quality checks in place, checking with farmers^{xxviii} or setting up their own weather stations^{xxix} to verify the data accuracy.

Participants are continuing to work to ensure the data they provide is useable for the farmers they are supporting, focussing on the content and format of the information and seeking user feedback.

Several participants explained that they are working to make the information they provide to farmers more useable, not only by using more localised information^{xxx} but also by delivering it in the appropriate language and format for their user group.^{xxxi} Three participants explained their ongoing efforts to make their service more useable by pairing it with agricultural advisories that enable farmers to understand how to apply the weather and climate information received.^{xxxii} Though some participants did this during the course of the Prize, one participant explained that they are now further refining the advice they are providing according to the specific farmer type, acknowledging that rice and maize farmers will respond to information differently.^{xxxiii} Four awarded participants explained that they are seeking feedback from farmers on the usability of the data, enabling them to refine their services in response to this.^{xxxiv}

Participants continue to rely largely on text messages to disseminate climate and weather information to users. Some use face to face communications, and others have explored using mobile apps and other innovative approaches to dissemination, such as outreach through schools.

11 participants reported using SMS to disseminate information to users.^{xxxv} Since the Prize finished, some participants have changed the way they use SMS to improve the efficiency or informativeness of their services. For example, one is using an automated SMS service to provide data in real time,^{xxxvi} and is one now sending seasonal forecast SMSs in addition to short term weather forecasts.^{xxxvii}

Two winners have scaled back their use of SMS. The first prize winner no longer uses SMS in favour of using a mobile application that they have developed since the Prize finished.^{xxxviii} Another now sends messages weekly rather than on demand as they did during the Prize. This is in line with their use of localised information, which is provided based on the specific geocoordinates of the user, meaning an on-demand service is not feasible.^{xxxix}

Ten participants also disseminate information through face to face communication. They reach out to communities through, for example, outreach programmes,^{xl} social gatherings,^{xli} community volunteers,^{xlii} farmer networks,^{xliii} and schools.^{xliv} The two prize finalists explained that, for financial reasons, they have scaled back their outreach directly with the community, but are available for users to come to them to gain information and ask questions.^{xlv}

Box 1: SOFDI: Using an innovative approach to dissemination through schools

As a key component of their climate information dissemination work, SOFDI work through schools to disseminate information to pupils and parents, with the purpose of building the capacity of a much larger group to use and disseminate climate information. During the Prize, SOFDI trained both pupils and school patrons in the use of climate information. They have now extended this through a Training of Trainers approach – since the Prize, those patrons have trained parents of pupils within the schools. SOFDI propose that this indicates sustainable capacity, having themselves only stepped in to provide technical support rather than deliver the training itself to parents.

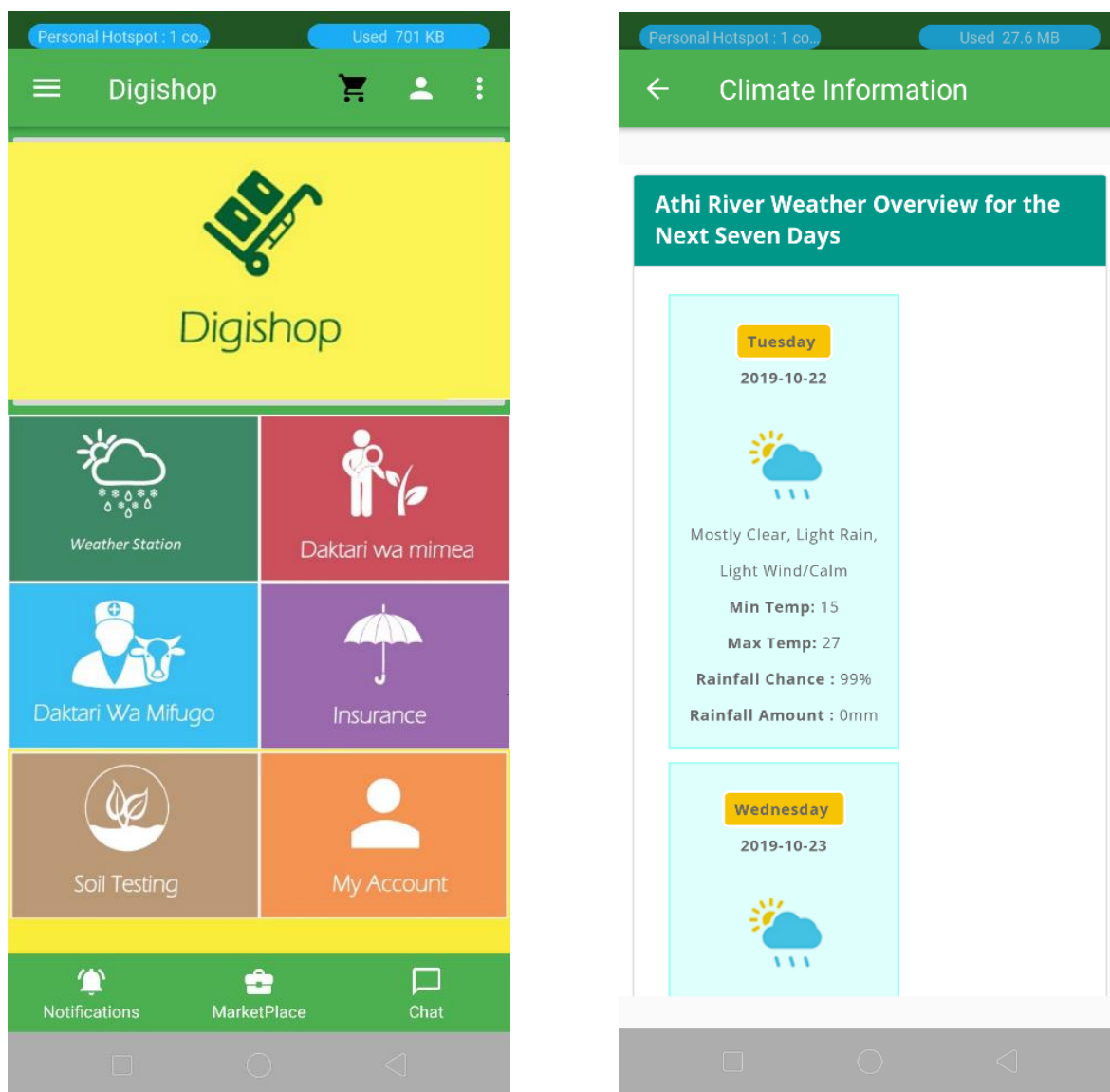
In continuing their dissemination to pupils, they have conducted refresher training with pupils of 30 schools trained during the Prize, to ensure sustained capacity of those pupils. They have reached out to a further 30 schools in the area to engage them in future training. Within the schools, SOFDI provide weather noticeboards to update with weather forecasts for pupils, and provide each pupil with a weather booklet, for them to note the information and share it with their parents. This approach allows them to reach a greater number of potential climate information users. It also provides increased potential for longer term influence by engaging youth, supporting their understanding and empowering them through this responsibility.

SOFDI fund this work by drawing from donor funding they receive from a private foundation.

Experience from participants indicates that the feasibility and value of using mobile applications to disseminate climate information is dependent on the audience, context and service package being delivered, as well as the skills available to develop the technology.

A few participants have invested time into developing a mobile application for their CIS. The winning participant was, at the end of the Prize, intending to develop an application specifically for the climate information component of their work. Since the Prize, they have integrated the CIS into their existing application for agro-advisory, agroveter and other services.^{xlvi} This provides a one-stop shop for users to gather all the information they need, including climate information (See Figure 4). The application is free to use for the first three months, and beyond that it costs KSH 100 (approximately \$1) to continue to use the weather station, insurance, agronomists and the veterinary officer services.

Figure 4: Digishop mobile application dashboard and example of climate information



Another winner highlighted their in-house expertise in software development has enabled them to continue to develop their web and mobile-based applications at a low cost since the Prize finished.^{xlvii}

However, not all participants have found this to be the best communications approach for their initiative. Two non-winning participants explained that they have attempted to develop an application since the Prize finished. For one, ongoing issues with the developer meant they now rely on freely available online tools;^{xlviii} the other realised that an application was not feasible for rural people, who need something simple, accessible and in their local language.^{xlix} Moreover, the use of mobile applications is dependent on smart phone penetration and ownership in Kenya, likely to be lower among poor and vulnerable people.⁸

Two participants explained they plan to develop mobile applications going forward to enable them to provide more information to farmers, and to improve the efficiency of their service.[!]

One participant who continued to the end of the Prize period, but was not in the final 18, due to an incomplete final application has been working with voice functionality to develop his service (see Box 2).

⁸ A GSMA study funded by DFID found that the average smartphone cost in Kenya in 2017 was around \$118 in 2017, and expected be \$109 in 2020 (Karlsson et.al., 2017)

Box 2: 'Siri' for farmers

One participant who continued to the end of the Prize period, but was not successful, has continued to work on their initiative since the Prize closed. They explained their efforts to develop 'Siri' for farmers. This involves providing a number that allows farmers to speak to a virtual agent. This voice functionality was only discovered and introduced in the final months of the Prize period, and not a key part of their initial idea submitted under the Prize. Instead it came about through consideration of innovative ways to disseminate information to farmers. The technology is still in development and the team are working to develop this functionality in Swahili as well as English. It should be noted that this participant was not involved in climate change or climate information initiatives before the Prize, but started on this journey in response to the Prize call.

4.2 Service use

The number of people with access to climate information through the CIP innovations has increased overall. However, where participants have scaled up, they have largely done this within the contexts they were originally working in: geographical reach remains the same for most, as does user type, including, importantly, the reach to poor and vulnerable people. Ongoing and increased use of the CISs can drive continued implementation, by emphasising the relevance and demand of services, providing increased opportunities for financial and technical investment.

The majority of participants have scaled their initiative through increasing their user numbers since the Prize closed. Of those interviewed, eleven participants reported that the number of users of their CIS has increased since the Prize finished. The rate of increase varies greatly between participants. Some have chosen to focus on refining their service since the Prize closed, with less emphasis on increasing their user numbers at this stage. Four of the winning organisations reported this. We see a decrease in numbers among four participants, including those who have discontinued, and one finalist, who has had to reduce numbers due to financial constraints. One participant reported that their user numbers remain the same.

Taking all reported figures into account, our analysis provides a median percentage increase of 62% in user numbers. Table 2 indicates the numbers reported at time of submission, the numbers reported in the sustainability interviews, whether this represents an increase or decrease, and the percentage of that increase or decrease.

The numbers reported need to be viewed cautiously as they have not been independently verified. It should be noted that one participant reported an increase of 395,975 from the 4,025 users they reported at the end of the Prize, totalling 400,000 current users from just one participant. Also, we stress that these numbers do not indicate the rate of use of the initiatives – instead they show the potential access provided to climate information as reported by participants.

Table 2: Number of CIS users reported by participants⁹

Prize outcome	Original reported in final report	Current reported in interview	Increase/decrease	% increase/decrease	Comments
First Prize	20,384	28,000	↑	+37%	Both expanding user base and developing service approach
Second Prize	491	2,000	↑	+307%	Main focus on developing service before increasing user base
Third Prize	2,706	3,000	↑	+11%	Main focus on developing service before increasing user base
Fourth Prize	2,139	11,259	↑	+426%	Change in strategy paired with change in user base from pastoralists to farmers
Runner Up	1,925	6,522	↑	+239%	This includes SMSs sent, in addition information is provided to school pupils
Runner Up	3,000	5,600	↑	+87%	Reaching new users in the same county, new sub-county
Runner Up	4,020	4,020	=	0%	Same number of users but working with them to ensure they are using tool effectively.
Finalist	41,000	45,100	↑	+10%	Increased users but extension service scaled back
Finalist	51	<51	↓	-1%	Reduced users – number not specified
Submitted final report	2,400	5,000	↑	+108%	Also reported now reaching all banana producers in county (totalling over 105,000)
Submitted final report	4,025	400,000	↑	+9838%	Reported 400,000 farmers in database
Submitted final report	590	1,200	↑	+103%	Reaching more users through promotion and advertising
Submitted final report	1,200 ¹⁰	882	↓	-26.5%	Decreased against number in final report, though total of 610 during Prize period reported in interview
Submitted final report	200	2,500	↑	+1150%	Increased through word-of-mouth and demonstration
Submitted final report	424	0	↓	-100%	Project discontinued
Submitted final report	523	0	↓	-100%	Project discontinued

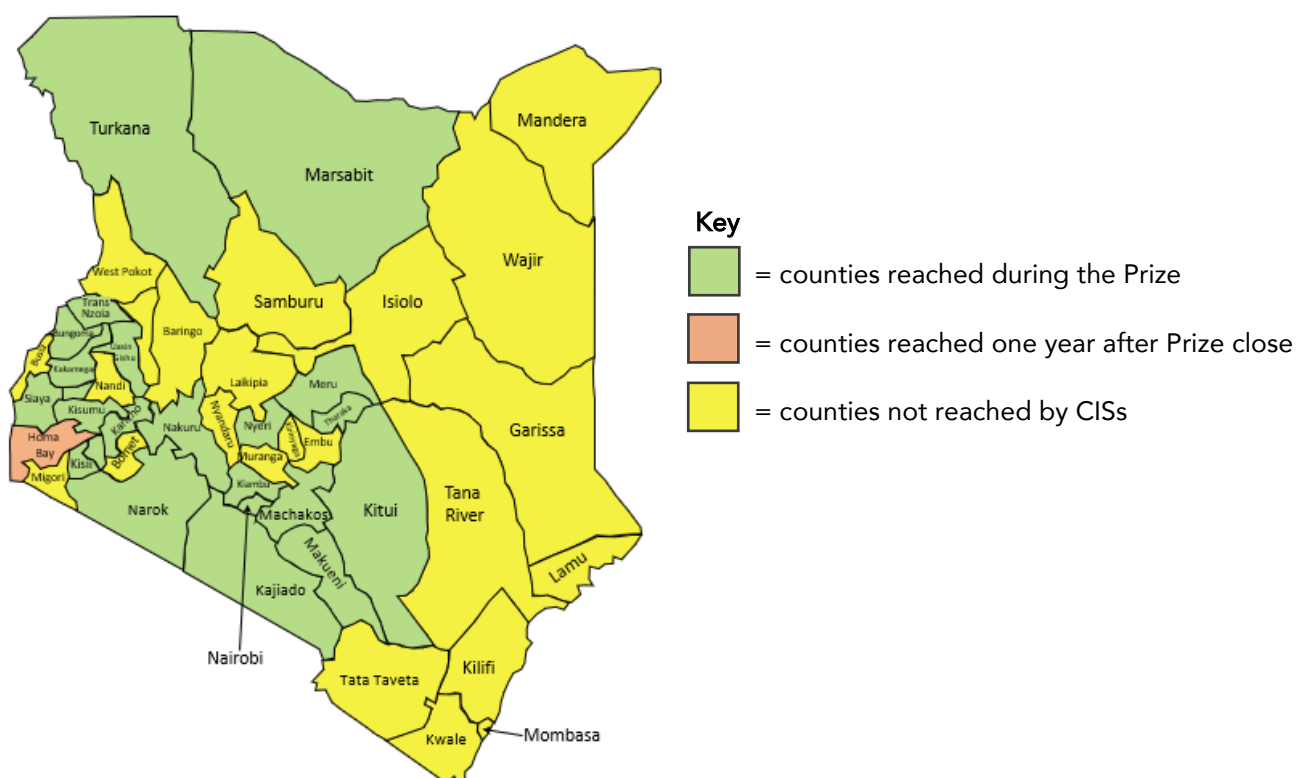
⁹ Please note these figures have not been independently verified

¹⁰ There is a discrepancy between numbers reported in the final report (1,200) and those reported in the sustainability interview (610).

Prize outcome	Original reported in final report	Current reported in interview	Increase/decrease	% increase/decrease	Comments
Submitted final report	9,197	Not reported	-	-	Did not participate in interview
Submitted final report	34,940	Not reported	-	-	Did not participate in interview
Total	129,215	515,133			

The geographical reach of the CISs remains the same for most participants. Two participants reported expanding to new areas. One has expended to 300 new users in a new sub-county within their existing county of operation. Another has expanded to a neighbouring county but explained that they were intending to do this anyway – and reported it not to be a result of their activities in the Prize.^{li} A further three participants shared their intentions to expand into new counties next year, once they receive new funding or have further established their initiative.^{lii} In terms of overall reach by the initiatives, there is a decrease in geographical reach by county due to the discontinued initiatives. However, one participant that discontinued indicated that they had passed their database of users onto the CMD to continue to support them with accessing climate information.^{liii} We were not able to verify whether and the extent to which the CMD had continued to provide climate information to these users. Figure 5 shows the county level reach of the initiatives at the point of submission and one year later.

Figure 5: Geographical reach of initiatives at time of award and one year on



Most participants are working with the same user groups as during the Prize.^{liv} The majority of participants continue to work with smallholder farmers.^{lv} Two winners have expanded their work with agro-dealers and agrovet.^{lvi} This includes the first and second place winners of the Prize, who have been working on refining their services and enhancing their service offering. Two are working with

pastoralists.^{lvii} Two work with school pupils.^{lviii} There is no clear connection between user groups targeted and the likely sustainability of the initiative. Generally, where these additional groups have been targeted i.e. agrodealers, agrovets, pastoralists and pupils, they are engaged alongside smallholder farmers. This is with the exception of the Climate Information Pastoral Unit, who focusses solely on pastoralists and intends to introduce user fees for them to sustain their service in the longer term.

Three participants noted a change in their user groups. One winner explained they are now working with smallholder farmers and agro-pastoralists finding that their previous focus on supporting pastoralists was too challenging because of their migration patterns.^{lix} Another participant has shifted from supporting cash crop farmers to supporting commercial farmers.^{lx} Another is now disseminating information to agrovets, having included this to support the roll out of credit facilities as part of their sustainability strategy (see Box 3, Section 4.3).^{lxi}

There does not appear to have been much change in reach to the poor and vulnerable since the Prize finished.

All participants reported that they reach both male and female users. Three participants specifically focus on working with women.^{lxii} One has noted more female than male farmers working in agriculture, men typically being more involved in business, and so reaches approximately 60% female farmers by default.^{lxiii} Another has noted they work largely with male farmers, so in response is now setting out to target women and women's groups.^{lxiv} Though participants did not specify any specific barriers in reaching female users, research indicates that women in low- and middle-income countries are on average 10% less likely than men to own a mobile phone (Connected Women, 2018); and, in Kenya, women are 39% less likely than men to have access to mobile internet, and 23% less likely to own a smartphone (Muhura, 2019). Barriers to access and use of mobile phones and mobile internet include, most prominently, cost, but also for women in particular, digital literacy and literacy, lack of perceived relevance, safety and security-related issues, and awareness of availability (Connected Women, 2018). This has particular implications for the likely reach of the services that deliver climate information through mobile applications.

Participants are also working with poor users, with youth, elderly and people with disabilities, though each was reported by small numbers of participants. Two participants were explicit about working with the poorest farmers, or in areas of high poverty.^{lxv} This included one runner up who has continued to expand their service, using the prize money to open a new rural office; and one who has scaled back their initiative due to lack of funding. Three explained they work with youth,^{lxvi} and one with elderly farmers, as the youth in the area tend to migrate into the city.^{lxvii} One participant explained that they specifically support people with disabilities through their CIS, having noted the reliance of people with disabilities on agricultural activities and their difficulties in growing crops.^{lxviii}

Participants have continued to provide training to their users to support their effective use of climate information. Five participants explained they have provided such training to their users. This includes training on using the CIS itself,^{lxix} as well as training on the use of agricultural inputs and methods to enable users to respond to the information provided.^{lxx} Such training has the potential to ensure meaningful engagement with and use of the information, as well as to provide a feedback mechanism for participants to understand the usability of their services.

Participants reported a number of observed changes in their users as a result of ongoing climate information provision. This includes increased demand for information,^{lxxi} better utilisation of the information,^{lxxii} improved decision making,^{lxxiii} improved agricultural activities,^{lxxiv} improved agricultural outcomes.^{lxxv} One participant explained:

“They understand better, they have integrated [the information], they have used it across different seasons.”^{lxxvi}

As with the user numbers, we were unable to verify this information ourselves. Rather, it is based on participants' perspectives.

4.3 Resource access and generation

Some participants are ensuring the financial sustainability of their initiative through generating revenue to resource their CIS activities. This is most commonly by introducing user fees for information and other services. However, beyond this, there is little evidence that participants have secured sustainable funding approaches, relying on prize winnings and other donor funding, and voluntary, pro-bono or subsidised inputs. Donor or voluntary inputs might enable participants to bridge the gap to longer-term sustainability, allowing them to continue to implement their initiative until they are able to secure more sustainable, longer-term funding. However, we consider these resourcing approaches of themselves not to be adequate for ensuring sustainability.

Table 3 provides a typology of funding sources and the number of projects using them. It lists this typology from most adequate (i.e. revenue generation) to least adequate (i.e. voluntary inputs), for sustainability. We also expect that the duration of secure funding is likely to be longer for revenue generation than for donor or voluntary inputs, meaning the projects that have developed means for revenue generation are likely to have most prospects for sustainability. The figures do not provide a clear pattern as to resourcing by participants type, though it appears that a larger proportion of awardees have or plan to introduce user fees, and a larger proportion of non-winners are reliant upon voluntary inputs. Their projects are therefore likely to be less sustainable in the longer term, unless they are able to identify new resource approaches or sources.

Table 3: Typology of funding sources of continued projects

Funding source	Type	Number of projects	Participant type
Revenue generation	User fees (introduced or planning to introduce)	9	6 awardees, 1 finalist, 2 who made final submissions
	Sale of goods (cookstoves, agricultural inputs and produce)	4	2 awardees, 2 who made final submissions
	Credit facility (see Box 3)	1	1 awardee
Donor funding	Prize winnings	7	7 awardees
	Multilateral and bilateral funding bodies	6	3 awardees, 1 finalist, 2 who made final submissions
Voluntary inputs	Volunteers	9	3 awardees, 1 finalist, 5 who made final submissions
	Pro-bono time	4	2 awardees, 2 who made final submissions
	Subsidised inputs	2	2 awardees

Several participants are generating revenue to support the continued implementation of the CIS. Four participants reported generating revenue through user fees,^{lxvii} and a further five are piloting fees, or planning to introduce them in future.^{lxviii} Participants charge variable amounts for their services, and use different models, charging by message, by month, by season or by user group. For example, one runner

up charges KES 100 per individual per month,^{lxxxix} and one winner charges an annual fee of KES 1000 per user group.^{lxxx} The winning organisation is piloting a fee of KES 100 for the use of their application. Another winner provides the first 6 months free of charge, and then intends to introduce a user fee of KES 100 per season. Another intends to start charging KES 1-2 per message.

In researching how best to introduce user fees, the winning organisation has received the response from users that they would be most willing to pay for the local weather forecasting and climate information message sharing – the component that this participant introduced in response to the Prize.^{lxxxix} Another participant notes users fees have impacted their user numbers – since introducing user fees their membership rates have started to fluctuate up and down depending on when users can afford the service.^{lxxxii}

Participants have also generated revenue, for example, from sale of cook stoves and briquettes,^{lxxxiii} agricultural produce^{lxxxiv} and agricultural inputs.^{lxxxv}

Awarded participants have invested their Prize winnings back into their CIS initiative. They have used the Prize money to support the sustainability and scaling of their initiatives. For example, they have opened new offices,^{lxxxvi} bought equipment for their organisation,^{lxxxvii} conducted research into the usability of their CIS^{lxxxviii} and paid for event and training attendance.^{lxxxix} The second place winner has used the money to subsidise user access fees for six months. They intend to use remaining money to support them to leverage further funding through establishing a credit facility that will enable them to generate funds for the initiative^{xc} (see Box 3).

Box 3: Generating revenue through a credit facility

Ukulima Tech is establishing a credit facility for their farmers, to support them to buy inputs for their agricultural activities, while also generating revenue to sustain their CIS, 'Climate Smart Agriculture'. They intend to use some of the Prize money to establish this facility. Upon a farmer's request for credit, Ukulima Tech will deliver the credit directly to one of the agrovets they work with, for the farmer to directly select the inputs they need for their activities. On repayment from farmers, Ukulima Tech will generate funds for the initiative. Ukulima are intending to pair this with an insurance arrangement to provide a backstop should a farmer not be in a position to pay the loan back.

Participants have taken different approaches to utilising their award money. A winning participant intends to use the money to balance their financial outgoings. He explained:

"That's our magic fund, and basically, that's what we want to utilise to break even by February of next year."^{xc}

While one winner explained that they ensure lean operations in order to make the money last, another explained that they have ploughed the money into the initiative.^{xcii} Two runners up explained that the prize amount they received (\$35,000) was relatively small in comparison to their annual spend, so the impact has not been significant.^{xciii}

Participants have received donor funding, mostly through multilateral and bilateral funding bodies. Two reported securing funding from the World Bank since the Prize closed, one through winning a Prize delivered by the World Bank (see Box 4, Section 0) and another through a consortium the World Bank is supporting. This latter participant was not an awardee of the Prize but submitted a final report. He explained that after they added the climate change component to their initiative, in response to the Prize, other investors became interested in their activities. This led to their engagement in a new consortium supporting the banana value chain in six counties. The consortium includes KARI, the Kenya Industrial Research and Development Institute (KIRDI), county extension officers, surrounding universities and the Prize participant organisation.^{xciv} This indicates that the impact of the Prize came not only through

awarding participants a prize but through incentivising them to integrate new components into their service development.

One runner up continues to receive funding from the African Development Bank for their CIS activities – a funding source that was in place before the start of the Prize.^{xcv} The same participant also reported receiving funding from the United States Department of Agriculture and from local agricultural extension agents in Kenya. This funding covers the costs of their application, review process and associated upgrades.

A finalist explained they received additional funding from existing donor Slovak Aid, after the Prize, of KES 350,000 (approximately \$3,400). They explained that this has now been used and their prize participation has not enabled them to unlock additional financing as they had hoped.^{xcvi} The winning participant explained that they are receiving some funding from SNV International, a not-for-profit international development organisation.^{xcvii}

A couple of participants have also been seeking funding from academic institutions.^{xcviii} One, who has discontinued their CIS for now, has received a scholarship from the International Development Research Centre (IDRC). They are considering using this for policy advocacy related to their CIS knowledge, however need an additional partner to invest before going ahead with this.^{xcix}

Three participants explained that they fund their initiative by diverting resources from other projects, however this is still reliant on donor funding. These participants have diverted resources they receive for agricultural work, fish farming and operational expenses, to fund their CIS activities.^c

Participants rely on volunteers, pro-bono time, and subsidies to deliver their CIS. Nine participants reported relying on volunteers,^{ci} including community volunteers, interns, and for one initiative, field staff who are paid commission based on the number of farmers signed up to the initiative.^{cii} Four participants reported receiving pro-bono inputs, from partner organisations, local government officers and expert advisors.^{ciii} Two participants receive subsidised inputs from their partners, one from a mobile phone service provider and one from a data provider.^{civ}

Four participants reported no new investment in their CIS.^{cv} The two participants who have discontinued since the Prize closed both reported that they were self-funded during the Prize, and so could not continue once the Prize closed.^{cvi} Three who are still implementing reported that they still use their own internal resources for their CIS.^{cvii}

4.4 Organisational development

Participants have invested time and resources into strengthening their organisation, addressing their structure, capabilities and partnerships to enable them to better deliver their CIS. These activities can support the sustainability of the organisation itself, as well as their ongoing and improved implementation of effective CISs.

A few participants have developed their organisational structure and skills in line with scaling their CIS. Some awarded participants invested some of their Prize money in opening a new office. Two have established offices in Nairobi,^{cviii} one explaining the value of this for leveraging connections in support of their initiative. Another participant has opened a rural office to enable closer engagement with the community.^{cx} Participants reported increasing their team size, either employing new staff members or working with volunteers to deliver their initiative.^{cx} This has not been possible for all participants, one explaining they have to keep a lean team due to financial constraints meaning it is difficult to retain team members.^{cx} Since the Prize finished, two awarded participants have registered their organisations as businesses, one not previously having been registered and another transitioning from a CBO to a business.^{cxii} One participant reported establishing a climate information department within their organisation, which they intend to transform into a climate information programme.^{cxiii}

A small number of participants have invested in skills development, either through formal training or receiving skills development from partners. For example, one winner used some of their Prize money to invest in their attendance at an international training in Amsterdam, focussed on investor readiness.^{cxiv} They have also attended workshops and trainings delivered by KMD, including one focussed on strategies for communicating climate information. Another participant attended a training on climate change and disaster management,^{cxv} and one has sent a team member on a three-month university course to upgrade their team's internal climate change skills.^{cxvi} Three participants also noted that they had received skills development from the new partners they have gained since the prize closed, to help them better deliver their CIS.^{cxvii}

Skills gaps still remain, some participants explaining they require technology development skills, climate change knowledge and data security expertise.^{cxviii}

In addition to the data providers, participants are working with communities and government to deliver their CISs. This has enabled them to extend and improve their service delivery.

Participants reported developing new partnerships at community level to better deliver their CIS.^{cxix} This has enabled them to reach more users and heighten engagement. For example, one participant has adopted a Training of Trainers model, partnering with users in order to increase efficiency in reaching more users (see Box 1).^{cxx} Another awarded participant was reached out to by a cooperative as a result of winning a Prize award. This new partnership enabled them to reach 600 new users.^{cxxi}

Participants are increasingly working with country level government bodies and officials to deliver their CIS. Three participants reported working closely with their CMD, engaging them in training and working with them to develop clearer climate information for users.^{cxii} Such partnerships have provided a great opportunity for participants, but are reliant on the differing level of interest of different CMDs. Participants also reported working with the county government.^{cxiii} This includes with the county-level Ministry of Agriculture, through whom they are able to, for example, gain access to an extensive farmer database,^{cxiv} influence policy,^{cxv} and develop agro-advisories.^{cxvi} Three participants explained that the county government are using their climate information,^{cxvii} one explaining that they have observed more interest from county level officials to receive training since the Prize closed.^{cxviii} Those working with county level extension agents during the Prize have continued to do so.^{cxix}

Other partnerships reported by participants include partners for capacity building and institutional support, mobile phone provider Africa's Talking, agrovets, Adesco,^{cxx} Food and Agriculture Organisation (FAO),^{cxxi} KARI,^{cxii} KIRDI,^{cxiii} Nairobi University,^{cxiv} PAFID Kenya,^{cxv} SNV^{cxvi} and the World Bank.^{cxvii} There are a couple of examples of participants working together to support each other's initiatives,^{cxviii} for example exchanging contacts and information. The participant consortium reported in the main evaluation report appears to have stopped short after one meeting, seemingly due to availability of the participants, and likely their distance from one another requiring time and resource investment to be able to meet. There is a willingness among some participants to support one another where they are able to.

4.5 Policy engagement

Policy engagement does not appear to be a key priority for participants in their CIS activities, though there are a couple of examples of participants realigning their service to local policies, and working more closely with government to gain reciprocal support in climate information provision. Such alignment and engagement can support the ongoing sustainability of their initiatives.

Seven participants reported efforts to align activities to government plans and policies.^{cxix} For example, since the Prize, one winner has aligned their approach to locally relevant plans including the Turkana County Integrated Development Plan (2017-2022) and Kalobeyei Settlement Integrated Development Plan (KISIDEP).^{cxl} Two participants reported drawing from government guidelines,^{cxli} one explaining that they refined these suggestions to develop a more innovative approach.^{cxlii}

In terms of influencing government approaches, **participants provide information to government, engage in government forums and work closely with the county government.** Some participants explained that they have provided information to the government based on their climate information activities.^{cxliii} One participant highlighted reciprocal exchange of information – informing government and also learning from that process.^{cxliiv} Participants explained that they are involved in government forums, workshops and policy and plan development.^{cxliv} For example, one participant was involved in drafting workshops for the county Disaster Risk Management policy.^{cxlvi} Another participant briefed the Minister for Environmental Natural Resources in Vihiga county on their CIS activities.^{cxlvii} An awardee explained that the government is keen to adopt their SMS approach.^{cxlviii} Some participants work directly with the county government,^{cxlix} for example working with the Ministry of Agriculture to broadcast climate information.^{cl}

One winning participant has observed the county government becoming more interested and aware even of work in the area by private organisations, providing them the opportunity to engage,^{cli} and one of the participants who has discontinued their CIS activities for now, has received a scholarship, which they plan to use to influence government policy using the knowledge they developed during the Prize.^{clii}

Section 5: Influence of the Prize on ongoing activities

The Prize had some influence on the subsequent activities of participants, including those who established their CIS specifically for the Prize, and those who had already established their CIS ahead of the Prize. The key beneficial influences of the Prize were on participants' approach to service delivery, supported by the skills and knowledge provided by the Prize, their visibility as a result of participating in the Prize and the connections they made through the Prize.

Participants explained that the Prize influenced their approach to CIS delivery. It helped them to understand good approaches to CIS delivery, enabling them to validate or improve their service^{cliii} and helped them to identify and refine their approach to service delivery.^{cliv} For example, the first prize winner indicated that the Prize helped them to identify as an agriculture technology company, which is defining their overall business approach and service delivery; the fourth prize winner indicated that Prize influenced them to change their name, strategy and focus in the period following the Prize.

The Prize provided participants with the opportunity to improve their skills and knowledge,^{clv} both through the solver support activities delivered, and through their participation according to the guidance and requirements of the Prize. Participants were able to improve their knowledge on how to use climate information; how to disseminate it; as well as on commercials, innovation, and accountability; which enabled them to deliver more effective CISs. It raised their awareness on the Prize topic.^{clvi} Relatedly, the Prize helped a couple of participants to understand the need for specific partnerships, for example with the KMD,^{clvii} and with end users.^{clviii}

Participants explained that the Prize also helped them to scale and accelerate, for example expanding their service offering,^{clix} improving existing partnerships^{clx} and speeding up their activities.^{clxi}

Participants explained that the value of the Prize was in further motivating them to deliver their CISs.^{clxii} One participant explained that they continued their project after the Prize because of the commitment they had made to farmers through the duration of the Prize.^{clxiii} The winning participant explained that the Prize provided the realisation that their approach makes sense to others not just themselves, spurring them to continue.^{clxiv} This has motivated them to participate in and win a subsequent recognition prize since the CIP closed (see Box 4).

Box 4: The One Million Farmer Initiative^{clxv}

Five months after the CIP was awarded, Farmers Pride entered and won a competition run by the World Bank Group, aiming to identify agri-tech innovations in Kenya, to form a consortium to support one million Kenyan farmers to enrol onto a digital platform over the next three years. The winning initiatives were chosen because of their potential to effect change at scale in Kenya.

As a winner of this competition, Farmers Pride will be eligible to apply for competitive grants totalling \$1 million to facilitate scaling up and have access to in-kind "incubation" support over a 12- to 18-month period.

The participant cited their climate information work as key to standing out from the crowd in order to win this competition. He explained that from over 1,000 applications, they shortlisted 26 organisations, and Farmers Pride was one of 14 winners. He felt that this opened up new opportunities to the organisation, such as their partnership with KARI for accessing more localised climate information.

The Prize gave participants greater visibility, enabling their continued implementation.^{clxvi} The winning participant noted their organisation being discussed more frequently in agricultural discussions, and being given media attention, including a recent TV programme made by Al Jazeera.^{clxvii} This visibility gave the initiative mileage locally and continentally, increasing their likelihood of getting a response to their

outreach efforts. Others explained that the Prize has given them local recognition, in working groups, forums and among users.^{clxviii} For some it led to more demand for their products and promoted their technology.^{clxix}

Participants noted the value of the Prize in terms of connections.^{clxx} This includes connections with government bodies, including KMD.^{clxxi} Two participants explained that they were able to make a connection with the local county government as a result of the Prize.^{clxxii} Other organisations also identified partners through the Prize, including the World Bank, Childfund, the FAO and PAFID.^{clxxiii} A few received invitations to conferences.^{clxxiv} A couple of participants noted that these connections were a result of the award ceremony.^{clxxv}

Participants reported access to networks^{clxxvi} as well as to other participants^{clxxvii} as a key benefit of the Prize. However, the Prize alone was not enough to secure new partnerships and connection for participants. One participant explained that the Prize did not result in as many partnerships as hoped; and another did not have the resources to exploit the connections made.^{clxxviii} Participants needed to have the motivation to continue driving their initiative by leveraging existing connections and creating new opportunities.

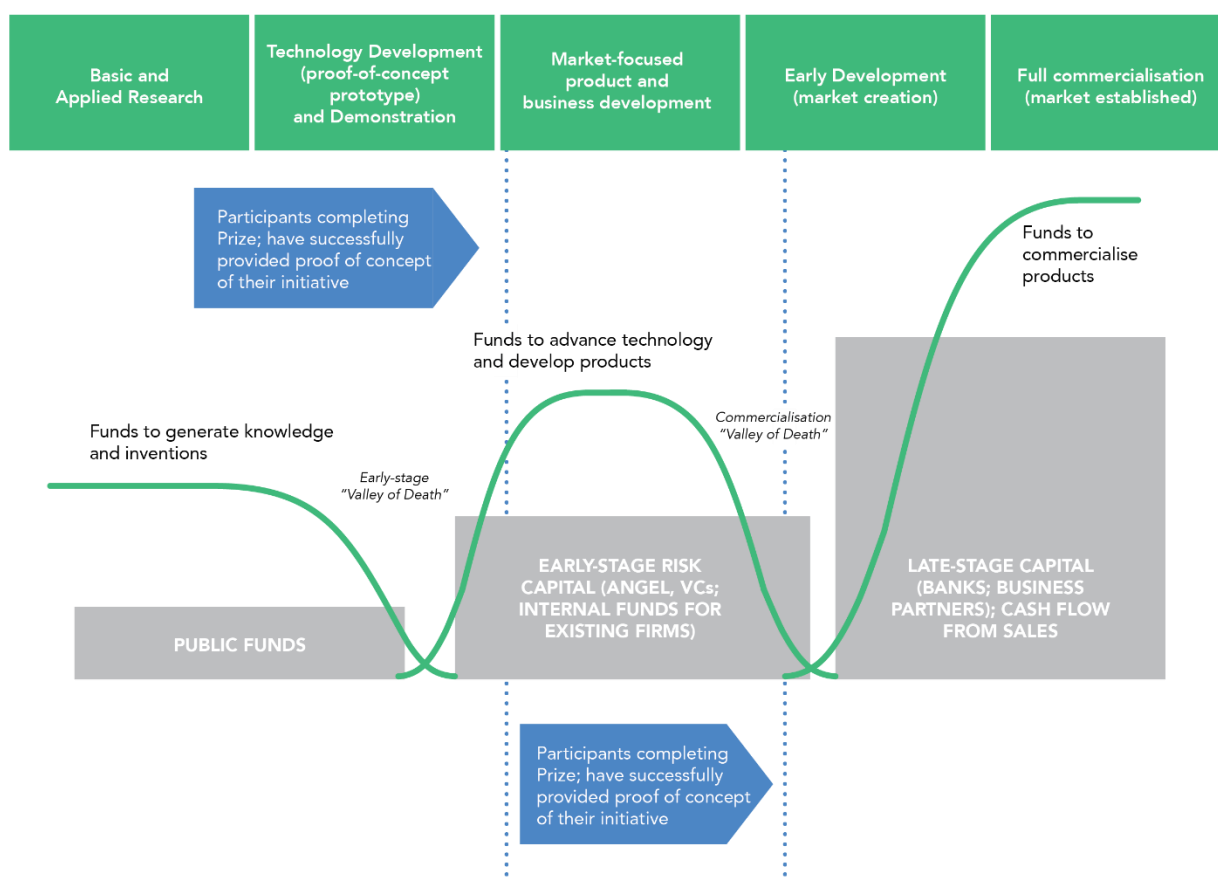
In terms of funding, **the Prize awards supported participants in furthering their initiative, but not in leveraging new funding.** One winner explained that the Prize money enabled them to focus on improving their product rather than scraping to deliver results to report for the Prize, as they felt they had done during the Prize implementation period.^{clxxix} Another used the Prize money to develop the team and bring in the key skills needed.^{clxxx} Three participants used the Prize money to open a new office.^{clxxxi} For one, this enabled them to open office in a rural area, supporting community engagement and better establishing their organisation.

Section 6: Navigating the innovation valley of death

Returning to the innovation valleys of death, the evidence we have on activities since the Prize finished supports that **the CIP was relevant for the early-stage valley of death** where, subsequent to the Prize, final participants had a proof of concept, having implemented their CIS for 18 months, and seven were awarded a cash sum, which they chose to invest in their innovation. The evidence indicates that participants have not yet successfully navigated the commercialisation 'valley of death'.

Our assessment indicates that, by largely investing their resources into advancing their services and strengthening their organisational capacity, participants have sustained and, in many cases, scaled their initiatives. By the end of the Prize period, 18 participants had trialed an approach to climate information dissemination, with seven of these considered 'prize-worthy' and awarded a financial prize. One year on from the Prize closing, we have found that a number of participants have further developed their initiatives, and while they have not, in general, secured significant sustainable financial input as yet, many are moving towards the commercialisation of their product through user fees (see Figure 6).

Figure 6: Participants progress through the valleys of death (Source: Adapted from X Prize Foundation, 2012)



With limited evidence for funds secured to commercialise their products, we cannot say they have been able to skip the commercialisation 'valley of death' as yet. There is no evidence that the Prize has enabled them to achieve this. However, in some cases, by motivating participants to improve their approach, visibility and connections, the Prize can be seen as a valuable support for participants in their journey towards commercialisation, to the other side of the second valley.

Developing and scaling innovations takes time, and poses numerous challenges for the innovator. Our evidence suggests that the Prize has supported a part of this process, and accelerated points along the way, but that there is still a way to go for participants to be able to ensure their initiative is sustained and successful in the longer term.

Conclusion

This assessment provides strong evidence that prize outcomes and effects can be sustained after a prize closes. This relies on concerted effort and motivation from participating organisations – with the Prize influence observed largely at what it has stimulated at project, rather than sector, level.

Many of the CIP initiatives have been sustained, and even scaled, since the Prize closed, but to varying degrees. Many of the award winners have invested resources into developing their products. It is clear, also, that those who did not win an award see value in continuing to deliver their CIS - to support the communities they were helping ahead of the prize, or as an interesting and relevant business venture - and strive to continue; though, for many, resourcing remains an issue and some have scaled back their service in order to sustain it.

The Prize has not enabled many participants to unlock significant additional financial resources. Prize awardees were in an advantageous position given the Prize money they won, and have invested the money carefully, back into their initiative. However, this, and the donor funding received by a number of participants, does not represent a sustainable long-term financial model for participants. There is not enough evidence from those exploring the use of user fees to sustain their initiatives to understand where this will take them in the longer term and how feasible it will be in terms of maintaining or further scaling out from the number of users they currently have using their initiatives.

Rather, **prize benefits for lasting change lie in the non-financial benefits received, including visibility, connections, skills and motivation.** For some participants, this may be what is needed to secure longer-term financial resources, though again, the evidence for that is not available through this assessment.

From the evidence we have, it appears that participants continue to work with same user type as they had during the Prize, without the need to adhere to the Prize guidelines or requirements that guided that throughout the Prize period. It can be expected that NGOs and CBOs continue their work with poor and vulnerable people as that is likely their target beneficiary group across their development activities. The evidence indicates that social entrepreneurs are more likely to reach out to the groups most likely to buy into their service, to ensure their initiative works as a business, rather than considering whether they are specifically reaching the most poor and vulnerable. More evidence would be valuable here to understand the nuances of this apparent pattern.

This assessment suggests that prizes can work to stimulate solutions to development problems, which are subsequently sustained after the prize closes. While CIP participants have displayed significant buy in to the problem being addressed to continue to implement and improve their activities, it is clear that post-prize sustainability and scaling of innovations is not rapid. Scaling and uptake of the solutions produced is likely to take some time, due, possibly, to the fact that continued action relies on participants' own drive and motivation, while working outside of any wider supportive structures that are provided by formal programmatic approaches, or investment arrangements.

The effects of a prize could potentially be emphasised, to further support participants in their activities post-prize, by prize teams and funders investing in activities specifically designed to enhance and sustain effects at sector level, and to further boost the progress made by participants – for example through awareness-building among sector stakeholders, facilitating investor connections and providing mentorship to participants where needed.

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Annex 1: Sample groups engaged

Table 4 indicates the size of the sample frames and sizes of the stakeholder groups we engaged in interviews for the follow up assessment.

Table 4: Samples engaged in interview

Stakeholder Group	Sample Frame	Sample engaged	Comments
Participants	19 participants still implementing at end of Prize period ¹¹	17	17 participants willing and available to complete an interview, one further participant gave a short email update
Live judges	4	3	3 live judges available during the data collection period
Local Prize Team	1	2	Two team members joined the local prize team interviews
Sector stakeholders	4	2	Two respondents were available for interview
Total	28	24	

¹¹ This includes one participant whose submission was deemed ineligible due to being incomplete, and the 18 participants who submitted eligible final reports

Endnotes

- i PA05, PS01, PS04, PS08, SS04, SS05
- ii SS04
- iii PS08, SS05
- iv PF01
- v SS01
- vi SS01, PS01
- vii SS02
- viii SS01
- ix SS01, SS02
- x PA01, PA02, PA03, PA04, PS03, PS05, PS06
- xi PT01, PA02, PA04, PS06
- xii PS08, SS04
- xiii SS04
- xiv PS05, SS02, SS03
- xv PT01, SS01, SS05
- xvi PT01, SS01, SS05
- xvii PA01, PA02, PA03, PA04, PA05, PA06, PA07, PF01, PF02, PS02, PS04, PS05, PS06, PS07
- xviii PA01, PS07, PF02, PA04, PS04, PS05
- xix PA04, PA05
- xx PA04, PS06, PS05, PS08
- xxi PA04, PA06
- xxii PA06
- xxiii PA05
- xxiv PA02, PS04
- xxv PA02
- xxvi PA04, PF02, PT01
- xxvii PA06
- xxviii PA06
- xxix PA04
- xxx PA04, PA05, PA06, PA02, PF02
- xxxi PA04, PF02, PS07
- xxxii PA04, PA06, PS04
- xxxiii PA04
- xxxiv PA02, PA03, PA05, PA06
- xxxv PA01, PA02, PA04, PA06, PA07, PF02, PS02, PS04, PS05, PS06, PS07
- xxxvi PA04
- xxxvii PA01
- xxxviii PA05
- xxxix PA06
- xl PS04
- xli PS06
- xlii PA02, PA07
- xliiii PA01, PA06, PF01, PS06, PS07
- xliv PA01
- xlvi PF01, PF02
- xlvi PA05

xlvi PA04
xlvii PS05
xlix PS08
l PS04, PA07
li PA03, PA02
lii PS02, PA05, PA06
liii PS01
liv PA01, PA02, PA03, PA05, PF01, PF02, PS02, PS03, PS04, PS05, PS06, PS07
lv PA01, PA02, PA03, PA05, PA06, PA07, PF01, PF02, PS02, PS03, PS04, PS05, PS07
lvi PA05, PA06
lvii PA03, PA06
lviii PA05, PS06
lix PA07
lx PS02
lxi PA06
lxii PA02, PF02, PS02
lxiii PA05
lxiv PA06
lxv PA02, PF02
lxvi PA01, PS02, PA05
lxvii PA06
lxviii PA02
lxix PA01, PA03, PA05, PS04
lxx PA05, PS07
lxxi PA01, PS04
lxxii PA01, PS04, PS06
lxxiii PA05, PS06
lxxiv PA02, PS06
lxxv PA07, PS07
lxxvi PA01
lxxvii PA02, PA03, PA07, PF02
lxxviii PA04, PA05, PA06, PS04, PS06
lxxix PA02
lxxx PA07
lxxxii Email communication between participant and Prize Team 23 October 2019
lxxxiii PF02
lxxxiiii PS04
lxxxv PS05
lxxxvi PA05, PA06
lxxxvii PA02, PA04, PA06
lxxxviii PA02, PA04
lxxxviiii PA03
lxxxix PA06
xc PA06
xci PA05
xcii PA07
xciii PA01, PA03
xciv PS02
xcv PA03

xcvi PF02
xcvii PA05
xcviii PS03, PS08
xcix PS08
c PA01, PS02, PS04
ci PA05, PA06, PA07, PF01, PS03, PS04, PS05, PS06, PS07
cii PA06
ciii PA04, PA06, PS04, PS06
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cxviii PA03, PA06, PS06
cxix PA04, PS03, PS04
cxi PA01, PA02, PA07, PF01, PS04
cxii PA01
cxiii PA02
cxiiii PA01, PA04, PS03
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cxvi PA06
cxvii PS04
cxviii PA04
cxix PA05, PA03, PF02
cxx PA03
cxxi PA02, PA03, PS02
cxxii PS06
cxxiii PS07
cxxiv PS02
cxxv PS02
cxxvi PS02
cxxvii PS02
cxxviii PS07
cxxix PA05
cxxx PA05, PS02
cxxxii PA02, PA04
cxxxiii PA01, PA05, PA06, PA07, PF02, PS04, PS06
cxl PA07
cxli PA05, PS03
cxlii PA05
cxliiii PF01, PA01, PA05, PS04
cxliv PA01

cxlv PA02, PS04, PS06
cxlvi PS06
cxlvii PA01
cxlviii PA02
cxlix PA01, PS04, PA02, PS07
cl PS04
cli PA05
clii PS08
cliii PA01, PA06, PA07, PF01, PS01, PS02, PS04, PT01
cliv PA05, PA07
clv PA01, PA04, PF02, PS02, PS03, PS08
clvi PA04, PF02, PS03, PS04
clvii PA01
clviii PA04, PS04
clix PA04, PS02
clx PS04
clxi PA06
clxii PA01, PA05, PA07, PS05, PS07
clxiii PA01
clxiv PA05
clxv PA05, <http://www.talkafrica.co.ke/world-bank-set-to-fund-agricultural-innovators-in-kenya/>
clxvi PA02, PA03, PA04, PA06, PA07, PF01
clxvii PA05
clxviii PA02, PA07, PF01
clxix PA01, PA03, PF01
clxx PF01, PS04
clxxi PA04, PA05, PS06, PT01
clxxii PA05, PS06
clxxiii PS02, PA06, PS07
clxxiv PA04, PA06, PF02
clxxv PA05, PS07
clxxvi PA04, PA07, PF01, PS05
clxxvii PA03, PA05, PA06, PT01
clxxviii PA06, PF01
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