Mid Term Review of Securing Water for Food: a Grand Challenge for Development

Final Report

19 September 2016

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EXECUTIVE SUMMARY

The mid term review (MTR) of Securing Water for Food: Grand Challenge for Development (SWFF) was implemented from May to August 2016. The aim of this MTR of SWFF and its three calls 2014-2015 (as from the Terms of Reference) has been to *"Improve SWFFs effectiveness in achieving the objectives of the program, provide concrete recommendations for the assessment of the applications in the fourth call, as well as provide input for future planning beyond 2016."*[1]

After discussions and initial planning between the Swedish Foreign Ministry / Sida and USAID, the SWFF Grand Challenge Fund was launched during the World Water Week in Stockholm in September 2013, and the first call for proposals was issued two months later. The Ministry for Foreign Affairs of the Netherlands (MFA), already closely involved in the design of the program, officially joined shortly thereafter to become the third Founding Partner. In 2015, South Africa's Department of Science and Technology through a Letter of Intent (LOI) with USAID became the fourth partner. USAID implements SWFF on behalf of the four Founding Partners. The program budget amounted to US$32m, of which $14m is provided by SIDA, $11m from USAID and $7m from DGIS.

Overall design and strategy of SWFF have remained largely unchanged since the launch of the first call for innovations in late 2013. SWFF is an innovation and acceleration initiative that aims to source, select and accelerate innovations that will enable the production of more food with less water. The focus areas of SWFF were chosen after months of extensive research and discussions involving a broad range of experts, and include:

- water efficiency and reuse, especially targeted at the food value chain;
- water capture and storage, in particular in regions where rain occurs at limited times; and
- saltwater intrusion, especially in coastal aquifers or deltas and estuaries.

The innovations in these areas could include (but were not limited to) improved technologies for irrigation, real-time water quantity monitoring, post-harvest water demand reduction, salinity reduction and water re-use/efficiency storage activities within the food value chain. SWFF also seeks to support business and financial innovations that enable the increased adoption and dissemination of science and technology solutions.

Three development hypotheses underlie SWFF's ambition to contribute to its overarching aim to make more water available for the food value chain and/or enabling the production of more food using less water, such that:

- by investing in science and technology innovations at the water and agricultural nexus, the pace of development in both sectors will be substantially faster than when relying on "traditional" development programming alone;
- by sourcing technologies and business model innovations that have already demonstrated potential at pilot stage, SWFF-supported innovations have greater likelihood of being brought to scale; and
- by investing in acceleration-oriented technical assistance and facilitating partnerships, the likelihood that awardees will have the knowledge, tools and resources to bring their innovations to scale will substantially increase.

By the end of 2015, 30 applications were selected for SWFF support (16 in Round 1, 2 in Round 2 under a different prize modality, and 12 in Round 3) across two stages of development: 23 are so-called stage 1 innovations related to market-driven product/business development and 7 are stage 2 innovations related

[1] The MTR exercise also included a light touch benchmarking of other Grand Challenge funds and similar initiatives.

to scaling and commercial growth. A majority of innovations are implemented in Africa (12) and in Asia (9), with the remaining innovations in other (or more than one) regions. The majority (22) are focused on water efficiency, 7 on water reuse and storage, and 4 on saltwater intrusion. (Some cover more than one focus area.)

The MTR team's overarching findings are that SWFF is an innovative and welcome initiative that challenges the funders and awardees alike to think and work differently together. As development cooperation needs new and fresh ideas, more risk taking and more systematic and effective inclusion of private actors, SWFF provides a meaningful contribution to the sector. Many interviewees use SWFF as a positive example of an innovation in itself that aims to contribute to development thinking as well as to practical solutions on the ground. The MTR team fully endorses the move towards a SWFF Fourth Call for proposals and early discussions (well before a final impact evaluation) on a possible future iteration of SWFF.

Concerning **relevance and policy coherence of SWFF** and its portfolio, the MTR finds that the Founding Partners have not only succeeded in defining goals and focus areas that are relevant, but also in blending their various policy objectives in a Grand Challenge. SWFF disposes of strong foundations that constitute an important asset for future action, starting with the imminent fourth call for proposals. The MTR team recognizes the significant efforts of SWFF 'to do things differently' and bring new practices and views on development. The SWFF policy framework is generally coherent and logical although trying to incorporate a wide range of elements such as scaling, poverty, gender alongside market driven approaches and grant financing, as well as trying to combine what is coherent for SWFF with how the innovators view their business presents some challenges at the implementation level.

In this regard, a few areas require more reflection. In particular, a sharper focus on water quality might be needed. Similarly, the worldwide scope of SWFF has its merits, although it might have been more desirable to unambiguously focus on innovations that put forward solutions in geographic areas that experience water scarcity or need to reinforce their water resilience. Efforts to counterbalance this notwithstanding, the majority of proposals received and innovations that have been awarded come from less water stressed areas.

While the policy goals related to the poor and gender are appropriate, the full implications of these choices might have been overlooked to some extent. The MTR team emphasizes the need to integrate more realism concerning such issues into the implementation of the program as well as to make sure those aspects are covered in the applications. A focus on the poor and on gender may in some instances be counter-intuitive within the context of a competitive space for growing start-up businesses. The extent to which vulnerable groups (including women) are benefitting (and can actually benefit) very much depends on the nature of the innovation and its stage of development. To ensure these policy goals are met, the MTR team considers that there is a need to broaden the acceleration service and adopt additional performance criteria.

The **selection and pre-award process** is well organized and effective. That said, the selection process takes a substantial amount of time - in Round 3 this period was 9 months – which might affect dynamics at the level of the innovators and eventual viability and sustainability of the initiatives. The pre-award survey is a demanding, cumbersome and "overly bureaucratic" process particularly for small innovators. Several interviewees noted that USAID practices are an apparent contradiction with an ambition to source and effectively promote innovations and business development while using contracting tools that were conceived for managing more traditional development interventions. The sense is that while SWFF is helping to accelerate innovations, USAID's bureaucracy is having the opposite effect. Efforts to minimize the burden on awardees, however, have certainly been welcomed.

A fundamental observation is that the SWFF management processes and the PAS in particular are not compatible with the key principles of alignment and harmonization of the Paris Declaration that have been agreed by the global donor community to make aid more effective. The Paris principles among others require donors to use local systems and simplify procedures and share information. Applying these principles to SWFF would imply that the systems of the country of the innovator should be used to assess

the 'awardability' of innovators and that the Founding Partners should exchange information on the track records of innovators to smooth administrative processes.

The team recognizes the efforts to increase the involvement of the South, particularly by including South Africa's DST as a fully-fledged partner. SWFF should continue to increase the 'Southern' content of SWFF, not only by undertaking specific measures to source high quality southern proposals, but also by considering how to more genuinely and effectively include the views of the South in the design, implementation and evaluation of SWFF. This would mean more southern voices on the IIAC, continuing to actively encourage a deepening of South Africa's role and potentially that of other southern governments as a partner, continuing to work with and through southern vendors, continuing to foster innovator-to-innovator sharing platforms, etc.

SWFF's **portfolio management** is located within USAID's Global Development Lab with the support of a contracted Technical Assistance Facility, TAF. The Team Lead, a USAID employee, is wearing many different hats in terms of portfolio management, representative functions, knowledge manager, selection manager, amongst others, and is regarded as very committed and efficient. The TAF's function is to perform a bridge between the innovators and USAID including: assisting the innovators in navigating through the various prerequisites to comply with USAID requirements and procedures; supporting the acceleration of the innovation and the business towards market integration and scale up; tracking the awardees' progress through the milestones of the implementation of the project; and providing broader management and communication support to ensure SWFF runs smoothly. The MTR appreciates the responsiveness of the SWFF team to modify their activities and workplan as new information becomes available and particularly in developing a more differentiated approach in the acceleration support process. This has helped to overcome earlier inefficiencies and implementation challenges over a period of months shortly after SWFF was launched while systems as well as the TAF were being put in place.

An important aspect linked to organization and management is the development and application of a sufficiently robust system to **monitor and evaluate** the progress realized by the SWFF awardees as a result of their own efforts and the financial and acceleration support of SWFF as well as of the performance of the TAF. The latter is done by the TAF itself and is the basis for the TAF's capacity to adapt its offer and tools. As for monitoring innovator progress, this is a key element of SWFF as the successful achievement of milestones triggers SWFF payments and the right of awardees to remain in the program.

An important issue where this M&E system and its application is key is the significance and use of **milestones**, which initially derive from the indicators in the innovator's application, and are then defined on a yearly basis providing the tranched milestone-based funding. SWFF has invested heavily in developing an M&E system, both related to the performance of the TAF and the program-level objectives and outputs. While M&E processes have improved over time, there is still room for further improvement around key issues including the ways of monitoring TAF performance (to become more independent), the way data related to water reduction and storage can be calculated and aggregated, the use of milestone indicators, M&E ownership (part of the M&E data to be collected are of little use for the innovators), and – overall – the balance between the accountability, learning and policy support functions of M&E. As a clear reflection of their importance in the program, the innovators not meeting the milestones (may) have their support terminated resulting in them being made an "alumni" of the program (as has happened for 6 of the Round 1 innovators).

In terms of support, what the MTR team was not able to establish was whether the SWFF team or the advisors were sufficiently influencing the strategic spend of the innovators to grow their business. There are investment lines in the budgets that the vendors provide. Whether the TAF support, mentoring, or other channels are helping the business to think through these investment decisions around, for example, production capacity, transportation, marketing, or other requirements was unclear. The goal is not to further encroach on business decisions certainly but teasing out these aspects seems fundamental to understanding how the business will achieve scale.

The diversity of innovations found within the portfolio and the business orientation to ensure viability of how the innovations fit into the market are key strengths of the program. Several innovations are attracting

global attention. Many innovations are designed and developed in a hybrid context of development aid (with its inbuilt subsidies) and market realities with innovators having generally good linkages in both 'worlds' and trying "to eat from various plates". Several also stem from NGOs that seek to transition the innovation into a business model. Towards this end, several innovators noted that the social contribution rather than the market is the driving force behind their work. With this and other factors in mind, SWFF needs to be aware of how the program requirements (around water savings, collection of performance data, and other aspects) force innovators to retrofit their innovation to fit the mold. The MTR team discussed whether SWFF could more effectively take each innovation at its own intrinsic value and contribution (and limitations), thus allowing for a more nuanced and tailored data collection set as well as broader communications on the impacts of the program.

Concerning **portfolio performance,** impacts of the innovations are not possible to determine at this time but recognizes that a full impact assessment shall be conducted towards the end of the initiative. In May 2016, the majority of the 9 remaining Round 1 innovators were on target and meeting their milestones, one was reported as 'unclear' pending clarification while only one had not submitted the needed information. Two Round 3 innovators out of 11 were on target, although it should be noted that for several innovators the award period (officially starting November 1st 2015) was delayed by several months due to various reasons. Thus some innovations will, no doubt, result in increased water efficiency and increased income generation although so far it is not possible to be more precise. To what extent the innovations succeed in removing barriers related to (local) institutional capacity and lack of an enabling environment is at this stage also difficult to gauge. The extent to which vulnerable groups are benefitting (and can actually benefit) very much depends on the nature of the innovation and its stage of development. Effects on **sustainability and gender equality** including the access and control of women over the means of production potentially through increased capacity building, could not be assessed. The MTR team understands that this area will be prioritized further in the 4th call. So far, the SWFF has shown some concern to include gender issues, but the approach of SWFF reflects rather a 'Women in Development' (recognizing the contribution women make to development) and not a more detailed 'Gender and Development' approach.

The primary **governance** structure is through a steering committee of the Founding Partners. As the implementing agency, USAID has a clear management and oversight role in SWFF. The Innovation Investment Advisory Committee (IIAC) effectively brings together a wide range of experts, primarily from investment/finance and water backgrounds, to support the screening and selection process and the milestone review for SWFF. For the IIAC, there is also a clear intention to increase the pool of experts from the South. Separating out the decision-making levels more clearly, potentially with a paid IIAC Chair to oversee these processes, would take the pressure off the Team Lead to fulfill such a wide range of important roles but also to ensure that checks and balances as well as institutional memory are more widely embedded.

With regard to **lessons and general trends from other similar initiatives,** the MTR team notes that various efforts are now underway to further distinguish between different modalities of Grand Challenges, prizes, impact investing, social philanthropy, etc. From several perspectives, interviewees noted that SWFF appears to be with or ahead in terms of how other similar innovation funds or related instruments are designed and implemented. A strong advantage is the growing SWFF community of practice, which is an emerging forum to help innovators to meet their milestones, advance their innovations more generally, as well as tease out what is most effective in terms of designing and implementing these types of funding modalities. An area where SWFF scores lower in relation to others is the administrative hours spent by innovators and the extensive monitoring, not always of relevant parameters for the innovators. SWFF's role is also to help innovators find follow-on investors who will be able to stay with them over a longer period. Finding and matching these investors with innovators appears to be a challenge in general across such initiatives. Like all of these initiatives, SWFF needs to straddle the delicate balance between ensuring that it is funding innovations that will take off with some financial and acceleration support, but not distorting the market, or using public funds where private investors are likely to come onboard.

Overarching Recommendations

Based on the findings of the MTR, the team suggests that **at the strategic level,** SWFF should:

- Continue to systematically contribute to the [thinking around the] evolution of the GC model as a key instrument of ODA and as part of a sequencing of financing modalities.
- Continue to reinforce and invest in the "SWFF community of practice" approach between innovators, and with SWFF as part of a wider network.
- Be tapping into all potential linkages within its Founding Partners and wider network to support innovators, including through the use of the Catalytic Fund, to help transition to more mainstream initiatives as well as to help remove barriers at the local level and support the creation / strengthening of an enabling environment for the innovations to be adopted more widely.
- Continue to increase Southern content and genuine ownership of the SWFF innovations by having more southern voices on the IIAC, actively encouraging the deepening of South Africa's role and potentially bringing on other southern governments as partners, continuing to work with and through southern vendors, continuing to foster innovator-to-innovator sharing platforms, etc.
- Consider emphasizing or further prioritizing funding for innovations that are implemented in areas facing water scarcity and/or that need to build water resilience.
- With regard to its pro-poor and gender focus, ensure that certain percentages of innovations are implemented in countries with a low development index; focus on business models that have direct or strong indirect benefits for the poor and women and lead to clear affordability for the poor as a priority; ensure that gender and poverty considerations are more comprehensively addressed through the proposal and selection stages and M&E processes with targeted support, including through SWFF's acceleration service, provided where needed.

At the operations and implementation level, SWFF should:

- Seek ways to further reduce selection time and the burden of PAS processes.
- Continue efforts to provide a more differentiated approach in the acceleration support process in relation to the level of development of the country; the size, experience and type (private, NGO, research) of innovator; etc.
- Work with other GCs to help identify links to a pool of appropriate investors that would be interested in SWFF innovations.
- Clarify the aims and rationale of the M&E system, maintaining but reviewing the milestones approach so that it becomes more of a tool for dialogue, learning, and decision-making on adjustments related to future implementation.
- Define clear procedures and criteria for the termination of support to awarded innovations, whereby the procedure should include the opportunity for innovators to defend themselves directly at the level of IIAC and Founding Partner decision making levels.
- Consider secondments from each Founding Partner to support SWFF, make linkages to other initiatives, and to bring learning more directly back to the Founding Partners.

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LIST OF ABBREVIATIONS

BAA	Broad Agency Announcement
DGIS	Directorate General of International Cooperation (The Netherlands)
DST	Department of Science and Technology (South Africa)
GAD	Gender and Development
GC(D)	Grand Challenge for Development
IIAC	Innovation Investment Advisory Committee
KPI	Key Performance Indicators
LOI	Letter of Intent
M&E	Monitoring and Evaluation
MFA	Netherlands Ministry of Foreign Affairs
MTR	Mid Term Review
NGO	Non-governmental Organization
NWP	National Water Partnership
OAA	Office of Acquisitions and Assistance
ODA	Official Development Assistance
(P-)PAD	(Program) Partners Activity Document
PAEGC	Powering Agriculture: An Energy Grand Challenge for Development
PAS	Pre-Award Survey
PMEP	Performance Monitoring and Evaluation Plan
R&D	Research and Development
RFA	Request for Applications
Sida	Swedish International Development Agency
SWFF	Securing Water for Food
TAF	Technical Assistance Facility
TEC	Technical Evaluation Committee
TOR	Terms of Reference
USAID	United States Agency for International Development
WID	Women in Development

LIST OF TABLES AND FIGURES

ACKNOWLEDGEMENTS

The MTR team would like to warmly and genuinely thank the representatives from the Founding Partners, the Technical Advisory Facility, the IIAC, and also the innovators themselves who all gave significant time and energy in openly and helpfully responding to the team's queries and advancing our thinking. The SWFF Team Lead and the TAF staff were particularly generous with their time and support. A wide range of individuals not related directly to SWFF but to other Grand Challenges or similar initiatives also provided helpful guidance and information and served as useful sounding boards for the MTR team. Indeed this openness and willingness to debate issues and refine findings from all parties reflects a clear strength of SWFF and made the assignment enjoyable for all members of the team.

The reader should note than any omissions, misinterpretations or mis-representations should be attributed to the authors alone.

1. INTRODUCTION AND BACKGROUND

1.1 Background of the Mid Term Review (MTR)

Securing Water for Food (SWFF) is a Grand Challenge for Development (GCD) that was launched in September 2013 by USAID and Sida to identify and accelerate innovative technologies and market-driven approaches to reduce global water insecurity and benefitting the food value chain in developing countries. SWFF was the fifth GCD launched by USAID in a short period of time and could draw upon the experience of its founding partners (USAID and Sida, joined by MFA-Netherlands a few months later and South Africa last year). SWFF focuses on the water/agriculture nexus and applies a view of the food value chain starting from primary production at farm level till consumption. Key to the SWFF GCD approach is a rigorous process to source, select and accelerate innovations that improve water efficiency simultaneously boosting food security and poverty alleviation and having the potential to achieve large-scale development impact. Its focus areas, selected after six months of extensive research and consultative review, are 1) water efficiency and reuse, 2) water capture and storage, and 3) saltwater intrusion. SWFF applies a double focus both on applied research and development, and on adapting, accelerating and scaling existing innovations (e.g. via new distribution models).

The Partners' Program Activity Document (P-PAD) mentions that a mid-term review (MTR) should be conducted, but without providing specifics on its aims and approach.[2] The MTR Terms of Reference (see Annex 1) contain however clear guidance and indications with regard to the aims and methodology.

The MTR was implemented by a team of three evaluators (based in the UK, Sweden and Belgium) that started their activities mid-May, submitted the draft synthesis report on 25 July 2016, and their final draft on 23 August 2016 after having incorporated the feedback of the founding partners on the draft report.

The MTR team assumes that the reader brings a familiarity with the SWFF Grand Challenge Fund and thereby has not provided significant details on the genesis and background of the program beyond the overview in Chapter 3. For further details, the reader is encouraged to review the SWFF website (http://securingwaterforfood.org) for a series of reports.

1.2 The Mid-Term Review objectives

Chapter three of the MTR Terms of Reference formulated its objectives as follows: the aim of the review of SWFF 2014-2015 (three calls) is to *"Improve SWFFs effectiveness in achieving the objectives of the program, provide concrete recommendations for the assessment of the applications in the fourth call, as well as provide input for future planning beyond 2016."*

The TOR further states that the review should focus on two main topics:

1. Providing insight in the current portfolio and its potential to contribute to the expected development objectives: early results.
2. Assess the functioning of the instrument, its strengths and weaknesses and lessons in achieving the program objectives: process (efficiency, relevance).

The review information and recommendations aims to contribute to:

- Providing direction to the development of the future of SWFF (in sourcing, selecting and assessing the fourth call, TA including M&E, etc).
- Improving the relevance of the program.

[2] On the contrary, the purpose and content of the final program evaluation are extensively addressed in the P-PAD.

- Providing insight with regards to the current portfolio.
- Enhancing the achievement of results.
- Optimizing use of human and financial resources.

2. THE MID TERM REVIEW METHODOLOGY

2.1 The MTR approach and methodology

The TOR required the evaluators to use a combination of qualitative and quantitative methods including documentary review, in-depth interviews with stakeholders, video and/or teleconferencing, and selected site visits that should include both Round 1 and Round 3 innovators and cover the main geographical areas where innovations were implemented.

Considering the specific nature of this Grand Challenge Fund, the team has organized the analysis not along the five DAC criteria (the more mainstream or traditional approach), but used a more functional framing that should be easier for analysis and learning as well as follow-up. As such, besides an overarching section that provides high-level findings, three distinct focus areas were distinguished:

- Analyzing the portfolio
- Analyzing the support facility
- Analyzing the organization of the SWFF (governance and oversight, administration, etc.)

An ambitious review framework was developed that included the questions of the TOR and organized these along the focus areas (included as Annex 2). The MTR team further elaborated an internal task division, which among others implied a division of the 28 Round 1 and Round 3 innovations to be studied. Findings related to each innovation were summarized in brief internal innovator notes that were drafted along a pre-determined format allowing subsequent comparison and aggregation of findings.

In line with the suggestions of the TOR, the team used a mix of data collection sources and collection methods as follows:

- **Desk review of relevant documents** related to the three focus areas;
- **In-depth, semi-structured interviews** with stakeholders including relevant staff from the founding partners, the TA Facility, members of the IIAC, and representatives of the innovations awarded including those discontinued. These interviews were conducted by Skype/phone, or face-to-face (during the AG Innovation Investment Summit early June 2016 with a visit of another team member to Washington);
- **Observations** during the above mentioned conference;
- **Selected site visits** to Bangladesh, Uganda and Sierra Leone/Ghana (with each team member conducting one visit) that allowed team members to acquire first-hand information at the level of five innovations (two round 1 and three round 3 innovations); the site visits included discussions with key staff in charge of the implementation of the innovation and contacts with the beneficiaries and other key stakeholders;
- **Light touch benchmarking** through interviews [with independent sources] and document review of other challenge funds conducted on a limited set of issues, which included trends with regard to technical assistance, efforts to match innovators with investors, criteria for selection of applicants, shifts in criteria and procedures as a result of learning from previous calls, etc.

The MTR focused largely on qualitative assessment to derive ideas and observations for process improvements. It is understood that a more rigorous summative evaluation shall be conducted at the end of the SWFF funding period in 2018 that would review SWFF impact in more depth.

2.2 The MTR phases and key activities

The inception phase proposed four partially overlapping phases that guided the implementation of the MTR. These phases and their key activities can be summarized as follows:

- An **inception phase** that started with a telephone conference in early May in which the founding partners, the TAF and the MTR team participated. The teleconference dealt with a discussion of the MTR TOR, an overall introduction to the SWFF, a presentation of the tasks of the TAF, and a discussion of the next steps of the MTR process. On the basis of their initial analysis of key documents and discussions, the MTR team drafted an inception report to present its understanding of the TOR, review the approach and methodology, phasing and timing, and determine internal task division of the team. The report was subsequently discussed with the reference group and final decisions were taken on key issues.
- An initial **information gathering phase** included the analysis of documentation, participation in key events such as the Innovation Investment Summit conference, finalization of the review framework, finalization of the criteria and actual selection of the innovation to be visited, and skype and face-to-face discussions with key stakeholders.
- With regard to the upcoming preparations for a **SWFF fourth call for innovations**, the MTR team drafted, submitted and discussed a note containing the MTR team's observations and suggestions.
- **Short site visits** to innovations were prepared with the key stakeholders concerned, and included meetings with the actors involved in implementation (with a special focus on final beneficiaries), and further focused on aspects that had remained unclear after document analysis.
- **A synthesis phase** that started with an internal workshop in which the review team discussed its main findings and formulated their key conclusions and recommendations. The team jointly drafted the draft synthesis report that was submitted for comments to the founding partners before being finalized.

2.3 Implementation challenges and validity of the MTR findings

The MTR could be largely implemented as planned notwithstanding a few implementation challenges. These included:

- **The volume of the task in a short space of time.** A key challenge for the MTR team related to the need to produce a meaningful analysis of the program that would inform the SWFF Founding Partners and the way forward whilst under significant time pressure to assimilate a significant volume of detailed information. Indeed the configuration of SWFF is complex and voluminous and thus the team was conscious of needing to remain at a higher level without being drawn too much into the details of specific procedures, workplans, resource allocations, etc.
- **Difficult access to key documentation**. The team was granted access to the SWFF database drive from the start of the MTR process. However, full access to and analysis of the documents was complicated by several factors: the substantial number of documents, the different organization of documents related to Round 1 and Round 3 innovations, the fact that gradually it was discovered that the team had not received access to all relevant documents, and the absence (in the database) of documents related to the Round 1 and Round 3 selection and award process. Eventually, the team accessed most documents needed with innovators providing additional information. These difficulties slowed down the document analysis, a significant part of the assignment.
- **Security issues**. Due to the unstable political situation, the team had to cancel its visit to Pakistan. Further, the visit to Bangladesh involved police authorities and police escorts during the field visit.
- **Limited site visits.** The TOR wanted the MTR to mainly use document analysis and interviews with key stakeholders as its main data collection methods; as such, the TOR foresaw field visits to four innovations only to be conducted by local consultants. After having studied the key documentation, the MTR-team proposed an alternative approach for the field visits (joint missions

of local evaluators and MTR team; other innovations) which the MTR steering group only partially agreed with. Eventually, 5 out of a total of 29 innovations were visited (visits of 2 days on average) by members of the MTR team only. Despite the large amount of documentation available for each innovation, these visits produced a distinct added value offering a far deeper understanding of the innovations and SWFF processes more generally. The visit of a larger sample of innovations would most probably have broadened further the breadth and depth of the findings.

- Interviews with a number of Grand Challenge and Innovation Incubator experts noted that **benchmarking** in a specific sense would be unhelpful as prizes, Grand Challenges and other similar modalities are all too different to make direct comparison meaningful. Instead they suggested, particularly given the short time frame and the significant resource required, to focus more on trends in this space.

While the effects of these constraints should not be underestimated, the MTR team is confident that its findings are largely valid and of use to the Founding Partners and SWFF administration for the continued improvement of the SWFF. The MTR team is grateful for the helpful and open contributions to the task from the Founding Partners (USAID, DGIS, Sida, DST), the TAF, the innovators, and other stakeholders.

3. OVERALL PROGRAMME DESCRIPTION[3]

After discussions and initial planning between the Swedish Foreign Ministry / Sida and USAID, the SWFF Grand Challenge Fund was launched during the World Water Week in Stockholm in September 2013, and the first call for proposals was issued two months later. The Ministry for Foreign Affairs of the Netherlands (MFA), already closely involved in the design of the program, officially joined shortly thereafter to become the third founding partner. In 2015, the South African Government's Department of Science and Technology through a Letter of Intent (LOI) with USAID became the fourth partner. USAID implements SWFF on behalf of the four Founding Partners. The program budget amounted to $32m, of which $14m from SIDA, $11m from USAID and $7m from DGIS.

3.1 Overall design and strategy

Overall design and strategy of SWFF have remained largely unchanged since the launch of the first call for innovations in late 2013.[4] SWFF is an innovation and acceleration initiative that aims to source, select and accelerate innovations that will enable the production of more food with less water. The focus areas of SWFF were chosen after months of extensive research and discussions involving a broad range of experts, and include:

- water efficiency and reuse, especially targeted at the food value chain;
- water capture and storage, in particular in regions where rain occurs at limited times; and
- saltwater intrusion, especially in coastal aquifers or deltas and estuaries.

The innovations in these areas could include (but were not limited to) improved technologies for irrigation, real-time water quantity monitoring, post-harvest water demand reduction, salinity reduction and water re-use/efficiency storage activities within the food value chain. SWFF also wanted to support business and financial innovations that enable the increased adoption and dissemination of science and technology solutions. SWFF supports innovation in two stages of development: so-called stage 1 innovations related to market-driven product/business development and stage 2 innovations related to scaling and commercial growth.

Three development hypotheses underlie SWFF's ambition to contribute to its overarching aim to make more water available for the food value chain and/or enabling the production of more food using less water, such that:

- by investing in science and technology innovations at the water and agricultural nexus, the pace of development in both sectors will be substantially faster than when relying on "traditional" development programming alone;
- by sourcing technologies and business model innovations that have already demonstrated potential at pilot stage, SWWF-supported innovations have greater likelihood of being brought to scale; and
- by investing in acceleration-oriented technical assistance and facilitating partnerships, the likelihood that awardees will have the knowledge, tools and resources to bring their innovations to scale will substantially increase.

[3] This chapter has been included for readers who are not familiar with SWFF. It is based mainly on the P-PAD and other SWFF key documents.

[4] See also chapter 5 for a more detailed overview of the different calls for proposals.

SWFF uses a combination of open calls for innovations and hands-on acceleration support for awardees; its strategy includes eight core elements that have undergone few changes during implementation:[5]

- **Understanding of the local enabling environment for technology and business innovations.** Applicants must be able to articulate the social, institutional, legal and regulatory challenges for the innovation, and describe how they will overcome those barriers.
- **User centered design, not technology for technology sake.** SWFF emphasizes the importance of the end-user in its criteria, funding decisions, and subsequent evaluations.
- **Use a variety of instruments to reach innovators.** SWFF is an "innovator-driven" rather than a "donor-driven" program and the Founding Partners will use a variety of instruments (e.g. grants, credit guarantees, advanced market commitments, prizes) to reach innovators.
- **Build sustainability into the fabric of the program:** all winning innovations must be sustainable (financial, institutional, environmental, technological, and social).
- **Facilitate market-driven partnerships:** SWFF facilitates solution/approach-based partnerships between entrepreneurs, investors and funds, corporations, governments, NGOs, and others.
- **Leverage market-based financing:** Funding provided under SWFF is milestone-based. Additionally, all awardees are required to have 40%-60% matching market-based financing (reduced to 25-50% match in the Fourth Call).
- **Stimulate innovative financing to scale water technologies and businesses.** Based on existing mechanisms and past experience, SWFF expects to facilitate the use a combination of grants, equity, debt, and guarantees to support innovative financing efforts.
- **Scale doesn't happen through financial support alone:** In no instance will SWFF limit itself to financial support to innovators. Therefore a robust, hands-on acceleration "track" has been built into the design of SWFF.
- **Intellectual property rights of innovators are protected:** the SWFF Founding Partners claim no right to the intellectual property of innovators. That intellectual property remains in the hands of innovators. In general, innovators may retain the rights, title and interest to Intellectual Property that is first acquired or produced under SWFF.

3.2 Key characteristics of the portfolio of awarded innovations

The following tables present a few key characteristics with regard to the awarded innovations.

Table 1: Type of organization and origin of the awardee

	Type or organization			Continent of origin	
	Research inst.	Non-profit	For profit	North	South
Round 1	2	4	10	12	4
Round 2	2	0	0	2	0
Round 3 (°)	1	7	4	6	6
Total	5	11	14	20	10

(°) Including the Waterpads innovation that has already been selected in Round 1 but only implemented in Round 3

[5] The major change includes a more explicit focus on the poor and women as direct and indirect beneficiaries of the program.

The table reveals that a majority of awardees are for profit organizations, be it that in round 3 non-profit organizations have become more successful. So far, two thirds of the awardees are based in the North, but in Round 3 the number of Northern and Southern based organizations was equal. Both parameters are actually related, because for profit organizations are mostly based in the North whereas Southern based awardees are mostly non-profit organizations.

Table 2: Focus area and stage of the innovations

	Focus area(s) (°)			Stage[6]	
	Water efficiency	Water reuse and storage	Salinity	Stage 1	Stage 2
Round 1	10	4	2	14	2
Round 2	0	0	2	2	0
Round 3	12	3	0	11	1
Total	22	7	4	27	3

(°) Some innovations cover more than one focus area; in particular the combination of water efficiency and water reusing has been prevalent.

Table 2 reveals that water efficiency is by far the major focus area, followed by water reuse and storage. However, this second focus area constitutes mostly a combination (or even a derived effect) of water efficiency innovations. The second (atypical) round was only sourcing innovations dealing with salinity; without this round, only a very few innovations dealing with salinity would have been sourced via SWFF.

The second part of the table indicates that most innovations supported by SWFF are stage 1 innovations. SWW has been less able to source and fund innovations that already passed the stage 1 threshold to deal with scaling and commercial growth.

The rather skewed distribution of innovations might suggest a reflection on whether in the future more should be done to source and support innovation in presently underserved domains. In particular the fact that so few stage 2 innovations are supported might require further thinking and reflection.

Table 3: Area of implementation of the innovations

	Asia	Middle East	Central Europe	Africa	Latin America
Round 1	6	2	1	6	4
Round 2	1	0	0	0	1
Round 3	2	3	0	6	1
Total	9	5	1	12	6

(°) Some innovations cover more than one area of implementation

The table above indicates that the innovations funded are fairly well spread among the Southern continents, with Asia and Latin America prominently represented in the first round, but less in round 3. Half of the third round innovations are implemented in Africa.

[6] Although a few original applications applied as Stage 2, SWFF reclassified them as Stage 1 based on internal discussions and discussions with the IIAC.

4. RELEVANCE AND POLICY COHERENCE

4.1 Relevance and coherence of the SWFF objectives and strategy

A key characteristic of the SWFF is the blending of the policy objectives of the different Founding Partners within the context of the current developments in the global water sector. Simply stated, for the Netherlands, this focus is largely around pro-poor initiatives that emphasize water efficiency and reuse, and saltwater intrusion. For Sweden, local ownership, and benefits for the poor and women are critical. For USAID, the bridge between innovations and scaling up and the contribution of business and enterprise to development goals particularly around agriculture are of critical interest. For South Africa, joining SWFF presented an opportunity to address some of the challenges SA and the continent face, and the potential for access to new and improved international networks, innovators, and funding. Against this background, addressing SWFF's relevance and policy coherence constituted a key consideration for this MTR, particularly to reflect on SWFF's internal logic and the impacts of these various interests on SWFF's operational strength.

The overarching goal[7] and the three focus areas of SWFF[8] are certainly relevant with regard to the recognition of increasing water shortage and competition between users in many parts of the world (although perhaps less so with regard to flooding as a result of climate change). The team recognizes that significant negotiation between the Founding Partners and a consultation process involving experts worldwide led SWFF to arrive at these focus areas. These remain of high relevance although a sharper focus on water quality could be more clearly articulated in the objectives.

Our sense is that governance innovations are also critical, or at least that the innovations being funded should be viewed more clearly within a governance framing. There is some analysis of the institutional context that could go farther to support the embedding of the innovations to have the intended impact. The MTR team appreciates the more recent moves to support innovators to overcome scaling challenges in the broader operating environment and would welcome more analysis up front at the application and screening stages on these wider issues.

The team further recognizes the overarching emphasis on technologies and business models. While innovations will have impact in their specific focus areas, they will need to be woven into other initiatives to sufficiently influence the major organizations and institutions and thus assist in overcoming overarching challenges in the water sector. Some question whether a Grand Challenge by nature will result in a major global breakthrough. While GCs can indeed trigger interest of the private sector, solving major water challenges needs a far longer time scale, and a long-term view and commitment from public, scientific and private institutions. Although it can make effective links, SWFF itself is not designed to trigger these more fundamental and institutional innovations that address these major challenges; other instruments are needed for that.

On the other hand, the MTR team recognizes the significant efforts of SWFF 'to do things differently' and bring new practices and views on development that have remained unchallenged for too long. While development initiatives are often notoriously risk averse, like other GCs, SWFF's forward looking approach can help link innovation and development more effectively. As they more easily succeed in involving private actors, Grand Challenge funds are also an appropriate means to bring ODA and its corresponding industry and interests closer to society and its dynamics. Also on the operational level, they can challenge more traditional development practices via e.g. through their focus on professional communication (and social media) and the use of business-like management practices through clearer milestones and targets.

[7] SWFF's goal is to source and accelerate innovation that enables the production of more food with less water.

[8] Water Efficiency and Reuse, Water Capture and Storage, and Saltwater Intrusion.

Towards these ends, the MTR finds that the Founding Partners have not only succeeded in defining goals and focus areas that are relevant, but also in blending their various policy objectives in a Grand Challenge. The result is a coherent and consistent approach and set of measures, which is a distinguishing feature of SWFF (see also chapter 9). As such, SWFF disposes of strong foundations that constitute an important asset for future action, starting with the imminent fourth call for proposals. In this regard and in view of a possible extension of SWFF, a few important issues might still benefit from further reflection and elaboration to further strengthen the initiative:

- While the policy goals related to inclusion of the poor and gender are appropriate, the implications of these choices might have been overlooked to some extent: what does it practically mean to involve the poor and gender aspects operationally – what does it mean in the context of many of the innovations? How can the poor benefit from an innovation that is meant to scale up via market mechanisms, whereby the poorest people might not have the purchasing power required to benefit? A focus on the poor and on gender may in some instances be counter-intuitive within the context of a competitive space for growing start-up businesses. In addition, innovations, the effectiveness of which have not yet been fully proven (or known), might prove incompatible with risk avoiding strategies that poor people often adopt for obvious reasons. These considerations call for realism with regard to what SWFF supported innovations can achieve and for a revisiting of the balance between the various goals and ambitions.
- The decision to launch and promote SWFF on the global level, thereby *not* focusing on the level of water scarcity in the area where the innovation is implemented as an important consideration in the RFA (Request for Applications) and the selection process, has resulted in a majority of proposals coming from non-water scarce or extreme weather areas. Some funded proposals relate to areas with levels of rainfall that allow regular rain-fed agriculture (at least during one cropping season).[9] That said, a specific call window under Round 3 focused on the Middle East and North Africa. While SWFF should not necessarily focus on the most drought-prone areas, the team feels that innovations funded should be more targeted to areas that experience water scarcity (and/or are expected to increasingly face problems in this regard due to climate change and global warming). This would align the goals and objectives more closely with the eventual awardees. In addition, the relevance and effectiveness of an innovation in view of SWFF's three focus areas varies along the climatic characteristics of the implementation area. The same can be said with regard to the economic, social and institutional context in which the innovations are implemented and brought to scale: one can expect that the challenges of scaling an innovation and making it a viable business are globally more important in countries with a low level of development. Working in such a broad range of contexts is challenging and would have required a differentiated approach that considers the various contextual factors on the pace and scale in the scaling-up process and the possibility to associate private sector partners. As such, one might ask whether narrowing down the variety of contexts would not facilitate SWFF's task in supporting the innovations more effectively.
- While the Round 1 BAA states that besides improved technologies, innovations might also include business and financial innovations that enable increased adoption and dissemination of new technologies, it is not entirely clear whether there is agreement on what actually constitutes an innovation – many of the ideas (bio-digesters, tent technologies, etc.) are not necessarily new.[10]
- SWFF wants to support processes that allow innovations to scale and eventually become viable businesses that can grow independently. Virtually all innovations are initiated by organizations that

[9] In this regard the team recognizes that the effects of climate change in particular have important consequences on rainfall patterns that become increasingly unpredictable and bring new challenges, also to rain fed agriculture.

[10] The MTR team was told that SWFF makes a clear distinction between ideas and innovations: innovations are the idea made reality, therefore the idea may not be new, but the application may be to that context/country. However, SWFF apparently does not yet dispose of a document that clearly delineates what – in the context of SWFF – is meant by an 'innovation' and an 'idea'.

are well connected to both the local and international donor community and/or have access to local government subsidies. As a key element of their institutional strategy, most innovators show an interest in developing a broad grant partner mix. This implied that innovators with a business background sought partners with a development cooperation background, while innovators with a development cooperation background (notably NGOs) sought complementary partners with a business background. As such, many innovations are characterized by institutionally hybrid approaches, rather than that they clearly opt for making their business financially independent (as would be the case for an 'ordinary' business venture). This is actually in line with a major ambition of SWFF that wants individual partners to liaise with other types of expertise. It should be noted that SWFF supported innovations are often forced to compete with other (potentially subsidized) organizations to scale up the same or at least a similar technology.

- As a grand challenge calling for innovations situated around the water-agriculture nexus, SWFF is inevitably confronted with the possible contradiction between the way innovations are conceived and operationalized (whereby creativity and out of the box thinking and acting is indispensable), and SWFF requirements with regard to the nature and potential of the innovations in view of its policy objectives. Few innovations seem to have been initially conceived with a water objective in mind. This has understandably led to some innovators squeezing their innovations into SWFF's objectives, mindset and molds. This is not a problem in itself, but constitutes an important issue to be taken into account in the dynamics of the program implementation.

The above refinements notwithstanding, the MTR team finds the objectives and framing of the SWFF as relevant, realistic, appropriate and consistent. The experience gained so far can be used to elaborate further on the issues above in line with findings and recommendations below (see section 4.5) to further strengthen the initiative.

4.2 Policy coherence

As mentioned above, each Founding Partner has its own interests, expertise and political pressures. The MTR has not been able to analyze how this plays out in detail within each agency and whether the potential contributions of the different Founding Partners are being maximized. The same can be said on how SWFF fits into the broader operations of each Founding Partner and how the wider operations are influencing as well as learning from SWFF, as this is not part of the MTR mandate. Based on limited interviews, the MTR team suspects that more could be done to integrate wider agency expertise, experience and linkages to Missions and embassy programs in the countries in which the innovators are operating. It is recognized that this relationship relies on a clear link with the in-country strategies. In some cases, USAID Mali with the innovator Ignitia, for example, such linkages are being usefully explored.

In particular, the following can be said about the coherence between SWFF and the founding partners' respective policies.

The **Dutch MFA** policy documents consider water scarcity as a critical global issue of the 21st century that needs to be addressed to avoid the proliferation of water-related conflicts and to promote political stability and economic development. As such, the food-water nexus is a strategic area of intervention for the Netherlands and the efficient use of water constitutes a key objective of both their water and food security policies. This policy context explains why the Netherlands were keen to be associated with the early stages of SWFF whereby they could bring in their experience in the water sector in particular to sharpen the initial focus areas of the program. In addition, at that time, the Dutch development paradigm was shifting from aid to trade, and the Netherlands hoped to learn from USAID's expertise in engaging the private sector for development purposes. Sida's priority attention for the poor, gender and sustainability also fit well within key Dutch policy considerations.

Institutional considerations also played an important role for the Netherlands, as SWFF provided a strategic yet challenging opportunity to engage in an operational partnership with USAID and Sida. The intention to engage in cooperation with USAID initially met with quite some resistance that only could be overcome via coordinated promotional efforts in which DGIS and the Netherlands Water Partnership (NWP) played an important role. The fact that USAID engaged in covering SWFF's administrative costs for their own budget

also helped in changing the opinion of several key actors. Further, key players within MFA-NL considered SWFF as a first and important initiative to bring change in their ODA water program's portfolio.

While the Netherlands were very much involved in the SWFF design process, for budgetary and administrative reasons they could not immediately become a formal member of the partnership at the time of the launch; they joined some months after the first RFA was announced.

The most recent addition to the Founding Partners' group, **South Africa,** has a National Water Act agreed in 1998 and the National Water Resource Strategy II of 2013. It became a Founding Partner in 2015 when it signed a Letter of Intent with USAID. The DST has actively promoted SWFF through its networks in SA and the continent and has marshaled resources towards providing support in overseeing the strategic and managerial aspects of SWFF. The DST has also recently nominated 2 members of the IIAC. As a new Founding Partner, the signed LOI had made mainly these demands on the DST. However, it was always understood that at the appropriate time, the role of the DST in providing funding support to SWFF would be discussed by the FP, which is now the case. South Africa represents a water scarce country as well as the developing world, particularly Southern Africa, a region in which SWFF previously had difficulty accessing. Joining SWFF presented an opportunity to address some of the challenges SA and the continent face, and the potential for access to new and improved international networks, innovators, and funding. For the other Founding Partners the benefit of the DST joining was better access to African networks. When discussing with innovators, several of them, particularly from other parts of the world, proposed that the Founding Partners should also include new partners from other countries that are represented by groups of innovators.

Sweden also has a strong position within the water sector. The Swedish policy includes many of the same values as found in the Dutch policy. Some key items are:

- To apply a deeper focus on poor and oppressed people's own perspective on development;
- Greater gender equality, rights and empowerment for women and girls, in particular in securing water and food, in which traditionally women have had a more subservient role;
- Secure ownership and rights of use to land are crucial to the opportunities of individuals and companies to invest. Access to land use as well as to water is a prerequisite for food security. (These issues were partly the key items behind the initiation of the SWFF.)
- Climate change will continue to affect future farming conditions, especially due to drought, rising temperatures, flooding and extreme weather. Adapting to changing climate is an important aspect of Sida's food supply projects and programs.

Swedish Sida has for many years played an important role concerning global water policy, including through its contribution to the Stockholm International Water Institute (SIWI) and the Stockholm Environment Institute. Each year SIWI convenes and organizes World Water Week with more than 3,000 participants coming together to discuss issues around international water management. Sweden is also the supporting host of the international secretariat for the Global Water Partnership. Sweden has also played a major role globally and within different UN settings when it comes to water and has been a key party to the Climate Change convention, UNFCCC, bringing expertise and emphasis on the important linkages between water and climate change. The 2013 initiative where Sweden together with USAID launched the SWFF therefore was a natural step.

A key pillar of the **USAID** Water and Development Strategy 2013-18 is around increasing water use productivity and efficiency in irrigated agriculture systems. The strategy stresses "the notion that farming is an enterprise and effective water management is an investment input." (p14) Operated by the Global Development Lab but with close contact with the USAID Water Office, the SWFF Grand Challenge Fund is well positioned to contribute to the strategic development objectives of USAID. Other aspects of SWFF dovetail well with USAID interests including working with non-traditional players (particularly the private sector) that can make a unique contribution to development; using evidence focused, agile and adaptive decision making to "take smarter risks"; moving away from "pilot-itis" to focus on scale; and other related factors. The SWFF design builds on the experience and lessons learned in other USAID-supported Grand Challenge Funds, like Saving Lives at Birth, Powering Agriculture, and All Children Reading. With strong

expectations for success, SWFF appears to be a politically important program with a relatively high profile in the Agency. Some interviewees suggested that SWFF may even be considered as part of Obama's legacy.

4.3 Coherence of SWFF portfolio

The **objectives of the SWFF portfolio** are appropriate and sound, but crosscutting issues in the context of the SWFF Grand Challenge approach, in particular around sustainability, gender and poverty, may require further thought and elaboration.

Overall, the vast majority of SWFF innovations fit within the SWFF framework, although the notion "to enable the production of more food with less water" (like FAO's "more crop per drop") in some cases proves less convincing. How this translates into water savings in every instance may however be questionable. The most 'problematic' innovation in this regard is Ignitia (weather forecast texts), the activities and results of which do not relate directly to the use of water in agriculture. One can assume that information on rainfall allows for a more efficient (= higher production) cultivation cycle. The innovation as such has only a secondary influence on the actual use of water as related to the decision making process related to key agricultural activities (planting, application of fertilizers and pesticides, etc). Still from some point of view it could be considered a fitting innovation for SWFF in its broader sense as it is clearly positioned on the water-agriculture nexus. Affordable Greenhouses, Aybar and TAHMO (an alumni) have similar outputs and similar 'constraints'. Several other innovations have had to think hard about unambiguously proving how they contribute to water reductions. The MTR team feels this has little to do with the intrinsic qualities of the innovations as such, but rather with the SWFF framework and criteria that leave some room for interpretation.[11] As noted in 4.1 above, another consideration is that innovators develop their ideas without necessarily having SWFF funding in mind and thus (like with any funding proposition) seek to retrofit their innovation to match the SWFF criteria. This is potentially positive as it may bring out aspects not otherwise considered, but it might prolong (administrative) aspects of the project development, which could pose a distraction for the awardees in getting on with implementation.

The goal of SWFF as stated in the P-PAD is to source and accelerate innovations … that will enable the production of more food with less water and energy. (Indeed this may lead to some confusion and questions of efficiency as to why there are two Grand Challenges, the SWFF and the "Powering Agriculture: An Energy Grand Challenge for Development" for water and energy dealing with agriculture.)

The cross-cutting issue of sustainability is well covered from a business framing in the application and proposals. Other issues like gender and poverty focus are explored less in the applications and proposals of RFA 1 and 3. A process of revising the RFA on the basis of the gender analysis report to be released by the TAF and comments by Founding Partners would hopefully change this.

4.4 Operational coherence

As to the question of **whether the Grand Challenge modality is using nimble new ways of working,** this needs to be considered in the light of its positioning in USAID's bureaucracy and the ability of the SWFF team to find appropriate ways of working with start-up businesses.

SWFF's operational coherence is challenging to assess generally due to the context specific nature of each innovator – with varying factors influencing their strategy, progress, enabling environments (vis-à-vis competitors), etc. That said, operational coherence very much relates to the extent the **core strategic elements** of SWFF (as noted in the P-PAD) are present/assured in the innovations included in the portfolio. As noted in the P-Pad, such core strategic elements include:

(a) an understanding of the local enabling environment for technology and business innovations

[11] The report revisits this point later, among others in chapters 5 and 6.3.

Innovators are mainly driven by an idea; in some cases that idea is developed out of their appraisal of the proposed operating environment, sometimes not. In the case of SWFF innovators, the application process seeks to assess how explicit this understanding is for the innovator. This is the reason for the requirement that the applicant shall be locally based or have a local partner. The general sense is that the closer the innovator is to the operating environment, the more likely the innovation will be tailored to that particular context and taken up by relevant target groups. This understanding thus should make it easier for the innovation to enter into or consolidate a position in the market. While anecdotally likely, it is, however, perhaps too early for most of the innovators (and SWFF) to actually determine this empirically. The MTR team would expect that this would be fleshed out further in the impact evaluation.

(b) user-centered design, not technology for technology sake

The MTR team regards the SWFF innovations as including this element well; the problem is that some constraints are only 'discovered' once the innovation is introduced at the local user level. This would call for some 'action research' to ensure adaptability to the local circumstances in quite early stages. Constraints in fact may not be related to design but to cost, acceptability, ease of production and transport, or other factors.

(c) specific instruments have been used to reach the innovator

SWFF wants to be an "innovator-driven" rather than a "donor-driven" program which means that innovators will each need a tailored package of support based on the level of advancement of the innovation, of the business, etc. SWFF through the TAF and related service providers' broad set of competences, has sought to adapt its offering to support each awardee. The team here emphasizes that the technical assistance competence needs to continue to source 'southern' based competence that is locally relevant.

(d) sustainability is built into the fabric of the innovation

The issue of sustainability of the business aspects of the innovation is well addressed in the proposals, as the proposal format is very explicit on this. However, constraints often come up later in the process. What is not sufficiently addressed is the sustainability of the outcomes of the innovations within a wider context. Successful projects are to generate their incomes via the successful innovation, but there is no sustainable option for those projects that do not succeed 'all the way'. This means that what they have achieved during the project might be lost unless they develop a transition strategy. In addition, sustainability can only fully be addressed in the later innovation stages (transition to scale, adoption). Most innovations that are funded are so-called stage 1 innovations (market-driven product/business development) that even after three years of SWFF support might not have reached these stages.

(e) innovation facilitates market-driven partnerships

Innovations often are set up and implemented through partnerships. Similarly in traditional development programs, there is increasingly a clear emphasis on multi-actor approaches where government institutions, private actors, NGOs, CBOs all take up their roles in a coordinated manner.

Whether the partnerships are market-driven or not depends largely on the environment, how the innovation emerged, the identity of the innovators and how they see the contribution of their innovation. For several of the innovators, a social contribution rather than the market is the driving force behind their work. Often innovations are designed and developed in a hybrid context of development aid and market realities with innovators having often good linkages in both 'worlds' and understandably "trying to eat from various plates." Note also that in the social profit sector, models to 'transit' to market approaches (e.g. NGOs setting up separate business entities) have become increasingly popular although difficult in some instances, like in university constructs that challenge internal "start-ups", for example.

In terms of partnerships, there is increasing emphasis in SWFF on supporting innovators in building relationships with other institutions beyond funders and product distributors who can help develop expand their customer base. This area relies on further understanding and exploring the context in which the innovators are operating, including who their competitors are, which related products receive subsidies,

which regulatory elements support or hinder in taking the innovation forward, etc. This kind of analysis should lead to potential partnerships beyond financiers and product distributors to seize opportunities as well as overcome barriers.

(f) market-based financing is leveraged in the innovation

(See remarks under (e).) This kind of dual purpose innovation financing, combining ODA with support to access market-based type funding, is a clear comparative advantage of SWFF. Experimenting in this way is also, according to USAID and Sida, a key motivation for launching SWFF. The question is, however, to what extent do the innovators regard this as the 'best possible' type of financing? Some of them express it as 'Why go for market-based financing when other (less expensive) funds remain available?'

Admittedly, the expansion of some innovations is constrained by 'unhealthy' competition from NGOs or other initiatives that are subsidized (e.g. buried diffuser in Tunisia has to compete with subsidized drip irrigation) and it is well understood that subsidized modalities struggle with sustainability. In practical terms, it is not until the scaling stage that market-based financing becomes a real prospect for the business. While efforts in this regard are clearly appropriate and appreciated by SWFF awardees, as noted elsewhere in this document, identifying and attracting financiers for SWFF innovators is a challenging area that requires further effort. (This challenge appears to be fairly consistent across other similar initiatives.)

(g) innovative financing is stimulated to scale water technologies and businesses

It is difficult to gauge this core element as even the most successful Round 1 innovations are not fully scaling up yet. A few, particularly Northern-based awardees have been able to leverage significant further financing (like AST). How innovative this financing is and the role that SWFF played in leveraging this financing needs to be explored further.

(h) scaling up of the innovation has included non-financial support

It is not clear to the MTR team whether this means other 'non-financial support' than that provided by TAF/SWFF. This is clearly the case in many innovations that liaise with providers of expertise for specific aspects of the innovation and fund their contribution with their own resources (e.g. (moderate) income from first sales). Several of the innovators already have their own contacts that provide such assistance.

(i) protection of intellectual property rights of innovators is assured

The MTR team is not sure to which extent this is an issue, although legally the intellectual property rights of innovators of course have to be assured. It is noted that MetaMeta has taken care of this within their projects. Also Reel Gardening worked out a solution, although not really a patent however. Si Technologies is working under a license from a patented product where India is a patent country. This demonstrates that the protection of intellectual property rights of the innovators is legally assured, under the country where the innovation is operating although the ways and means for that assurance varies depending on the law system of the country. As noted elsewhere, some innovators are less interested in this aspect, seeking to provide a social contribution that could be taken up by others.

Another strategic element that should be addressed concerns **the balance between public/social engagement and private/public engagement** and to what extent have private funds been generated that contribute to the developmental objectives of the program. It is not clear which 'balance' SWFF initiators had in mind. Genuinely private commercial funds have perhaps been less generated than expected – noting that the SWFF contribution is public money and that a substantial number of the innovators rather work from a social profit perspective.

4.5 Conclusions / Recommendations related to SWFF's relevance & policy coherence

Although it attempts to mix and match a number of key elements (scaling, poverty, gender, combining market driven and grant financing, etc.), SWFF's policy framework is generally coherent and logical; however combining all these elements inevitably brings some important implementation challenges. The MTR team notes that innovations and innovators follow their own unique logic that this innovation / technology would be helpful for people, without there being ex ante any link with a particular funding

mechanism. It is only in a later stage that innovators look around for additional funding and support. In a general sense, there are various alternatives for such funding and other forms of support needed. While highly appreciative of the opportunity to engage with SWFF as an important partner, the level of support they receive, and also the potential leverage for other funding sources, innovators go to SWFF when they think their innovation fits within the SWFF criteria and when no easier alternatives are at hand.

The objectives of SWFF and those of the innovator are hopefully compatible but will not be identical. As noted elsewhere in this document, few if any of the innovators start from the premise of reducing water use as the impetus for their innovation. Each also operates in a complex landscape and SWFF is far from being their only influencing factor, noting requirements from other funding sources, pressures from suppliers and buyers, own business drivers, etc. What is thereby coherent for SWFF is different from how the innovators view their business and thus efforts are made to squeeze their innovations into SWFF requirements.

A further consideration is around what SWFF means by "sourcing innovations". In most instances, the innovations funded by SWFF are not necessarily new but may bring unique combinations of expertise together to refine and propel the innovation forward or may be bringing an innovation that is already available in another geographic area. Many innovations bring something new in terms of the elements above, or even other aspects although the complete project might not be an innovation. In some cases though, the innovations present unique combinations of expertise that otherwise would not exist. Interestingly, the notion of what is innovative was raised by several interviewees, including awardees.

Global / Strategic Recommendations:

- SWFF should continue its efforts to source innovations from a broad range of actors but could prioritize innovations for areas that experience water scarcity (or are expected to do so in the near future) or need to build water resilience in view of natural phenomena related to climate change.
- While policy coherence and strategy are important, SWFF should be aware that innovators have their own logic and strategies. This reality should be taken into account when policy criteria are translated into access criteria for SWFF funding. SWFF might benefit from becoming somewhat less prescriptive and develop an approach that assesses innovations on their own potential and merits, provided they address the water-agriculture nexus.
- Founding Partners should address more systematically the learning potential of SWFF. From a variety of angles, SWFF is sitting on a gold mine of information, which seems to be just out of reach in terms of sufficient capacity to mine it. While not a research initiative, efforts to draw out lessons learned (like the forthcoming gender analysis) would be of great benefit to others designing development initiatives (in the water sector or otherwise).
- For future stages, SWFF should continue to find ways of including the views of the South in the design and implementation of the SWFF. This would mean more southern voices on the IIAC, continuing to integrate a contribution from South Africa and potentially other southern governments as a partner, continuing to work with and through southern vendors, continuing to foster innovator-to-innovator sharing platforms, etc. The MTR team certainly recognizes efforts in this regard.
- With regard to the poor / gender related aspects of SWFF-supported innovations, SWFF's 4th call requests that innovations have "direct or strong indirect benefits for the poor and women". If a focus on the poor/gender as a cross cutting critical barrier is to be taken further, innovations should be chosen where these considerations are included from the design phase with particular emphasis on business models that lead to affordability for the poor as a priority. Controversially stated however, if SWFF wants to meet the milestones particularly around wider innovation adoption, then in most instances working with the poorest may be a non-starter given limited buying power. To ensure effectiveness, SWFF needs to understand the complex gender dynamics around each innovation – where credit access might lead to men taking over the technology, where land rights perhaps overshadow women's engagement, where expectations of productivity gains from new technologies might lead to significantly more work for women, where women might have no control over the increased income they gain from the innovation, etc. Towards this end, SWFF will need to think

creatively with each innovator on how best to associate the poor and women closely with the innovation throughout the different stages of the scaling process. Indeed, a more poverty-focused and gendered understanding of the innovation could potentially lead to business benefits. Promoting (e.g. for part of the innovation portfolio) an explicit focus on achieving better conditions for women and the poor may imply a different path to scale (with corresponding milestones). To respond to this, SWFF will need to broaden its acceleration services to include gender advisory services according to identified needs. The emerging analysis in the forthcoming gender report is a good start in fleshing these issues out.

Specific / Operational Recommendations

- The MTR team appreciates the move to more effectively support innovators to overcome scaling challenges in the broader operating environment. Partnerships beyond those with investors and distributors may be needed in various instances to refine and contextualize the offer and spread the word more effectively. In many instances partnerships with NGOs, local government and other stakeholders may help overcome stumbling blocks in the local enabling environment. SWFF does encourage all innovators to liaise with organizations other than their usual suspects, but more analysis may be needed up front at the application stage on these wider issues.
- In line with the point above, SWFF is seeking to consciously and strategically feed into wider USAID audiences and donor partners. It is recognized that whether they can appeal to USAID Missions depends on if the innovation area fits in to Mission strategies. Otherwise it is unlikely that they will dedicate any resources to supporting the innovators. A wider mapping of other potentially interested or influential stakeholders (including Dutch and Swedish embassies and in-country partners) may be instructive.
- A more differentiated approach in the acceleration support process is emerging which is helpful. This should reflect the environment (low vs. higher level of development); the level of advancement of the innovation, business model, market and other related factors; the level of water scarcity and the engagement of government (through policy, regulation, its own business acceleration efforts, etc.); and the kinds of indicators that are most meaningful for the business with regard to water and otherwise.
- The MTR team does not expect that the SWFF will incorporate a focus on governance innovations (community management approaches, score cards, etc.) as this would pull the GC too far away from its investment focus. However, some more emphasis on this angle through the IIAC, for example, could be instructive. In the IIAC such linkages could be established with for instance Water Governance Facility, established within Stockholm International Water Institute, partly initiated by UNDP and with Country Water Partnerships, where present. This relates to the issue of whether the Founding Partners are sufficiently bringing in their competencies and primary links.

5. THE SELECTION AND PRE-AWARD PROCESS

5.1 The calls for proposals

So far SWFF has launched three calls for innovations, the first in November 2013, the second - the Desal Prize[12] - in May 2014, and the third in March 2015; a fourth call will be launched around mid August 2016. The three focus areas that were defined prior to the announcement of the first call were maintained in the third call, as was the focus on innovations at two stages: market-driven products/business development (stage 1) and scaling/commercial growth (stage 2). The maximum initial and future financial support also remained unchanged for both innovation stages (US$100,000 – US$500,000 for stage 1 innovations, and US$500,000 – US$3,000,000 for stage 2 innovations). So far, the calls have been launched worldwide with substantial communication efforts in which embassies and in-country representatives of the Founding Partners have played an increasing role.

The Round 3 call showed a few changes compared to Round 1, including a stronger focus on (the role of) women and on the poor (directly and indirectly) and a greater effort to reach out to developing countries. The key characteristics of Round 4 are expected to be very similar. Compared to the previous call, the main changes in the draft Round 4 RFA include a more explicit focus on women and the poor (innovations must be able to demonstrate their direct and indirect benefits for the poor and for women), a stronger focus on genuine local partnerships and a maximum funding ceiling of US$2,000,000 for stage 2 innovations.

A few key data related to the calls and the subsequent selection process (see chapter 5.2) is summarized in the table below.

Table 4: Key data related to the calls for proposals and selection process[13]

	Round 1	Round 3
Amount of the call (M.US$)	15	12.5
Concept notes received	521	450
Number of countries represented	+90	67
Eligible concept notes	505	408
Applicants invited to submit full application	83	77
Applicants having submitted full proposal	76	57
Applications advanced to finalist review	40	30
Applications selected for award process	16	12
Launching of the call	November 1, 2013	March 9, 2015
Announcement of winners	September 1, 2014	November 3, 2015

Overall the call for proposal process is regarded as well organized and transparent. SWFF has also fairly lived up to its ambition to promote the GC worldwide, as is illustrated by the significant number of countries represented among the concept notes received. As is known, the need to apply and operate within SWFF in

[12] As the second call, the Desal prize, has been atypical (in terms of approach, focus, funding sources and support and follow-up mechanisms) compared to the other calls and the imminent 4th call, it will not be included in our further analysis in this chapter.

[13] Note also two awardees for Round 2 Desal Prize.

English is a limiting factor that misses out a number of North and West African countries in particular that suffer from water stress. It is further unclear why the program is not effectively reaching Southeast Asia.

The fact that fewer proposals have come in for Round 3 and that they were considered of lower quality compared to the Round 1 proposals is not uncommon in this type of initiatives. It can at least to some extent be explained by the relative short period between the two calls. Other factors that might have played a role are the (perceived) small chance of success (implying that good innovations might be inclined to intensify their efforts to get access to more accessible sources of funding), and the fact that in many parts of the world (in particular southern middle income countries that may want to build up the country's institutional capacity) innovators have access to alternative sources of funding that might be more easily accessible than SWFF.

SWFF's ambition to get more proposals from the South in Round 3 did not materialize either but in comparison with Round 1, more awardees that are located in the South were eventually selected.[14] Most probably, the operational consequences of wanting to source more innovations from the South have not fully been taken into account: this would indeed have implied more consistent promotional efforts in Southern countries with often weaker communication infrastructure and, hence, substantial additional efforts and costs to share the information.

While opting for a worldwide call might have its merits, the team wonders whether it is the best option to source and accelerate SWFF innovations. As mentioned earlier, drought prone areas and areas facing water scarcity could have been more prominently represented among the proposals received; many proposals were selected from countries with predominantly rain-fed agriculture where it might be less relevant (and economically viable) to explicitly strive for water reduction, storage and reuse. This might jeopardize SWFF's ambition to realize substantial water reductions.[15] Furthermore, the broad responses to the calls generated a geographically broad range of proposals (and, subsequently, of innovations awarded) that brings along substantial management challenges and corresponding resource requirements throughout the entire program cycle. On the other hand, the richness of the SWFF portfolio is consistently exploited during the bi-annual meetings of the awardees (organized since the start of the program) whereby there is an increasingly strong focus on exchange and learning.

Finally, the fact that innovations can be implemented in an important number of countries, implied that proposals from the least developed countries have to compete with proposals from more developed countries and, hence, are less served than is the case in regular development cooperation[16]: only 10 (roughly one third) of the awarded innovations are (entirely or to a major extent) implemented in countries with a low level of human development (HDI below 0.55).

5.2 The awardee selection process

The SWFF selection process consists of three stages: the eligibility screening, the concept note review and the full application review. A first screening and selection is conducted on the basis of short concept notes submitted by the applicants. Those who make it to the second round are then invited to submit full proposals that provide the basis for the subsequent steps of the selection process until the final selection. Round 1 and Round 3 selections were conducted largely through the same steps and approach. All actors involved (interns, IIAC members, innovators, Founding Partners) consider the process as rigorous, well organized, of good intrinsic quality and generally ahead of the curve compared to other similar initiatives.

[14] The reasons for this will be discussed under the next section (the awardee selection process).

[15] Within SWFF there has been an interesting debate on when an innovation actually contributes to water reduction. This will be discussed later on, see chapter 6.3 among others.

[16] Focusing development aid on the least developed countries is an important consideration in the policies of most bilateral and multilateral donors.

The team largely shares this opinion as explained in detail below[17] and also chapter 9 on learning from other similarly styled initiatives.

The OAA and a group of E-interns consisting of recent graduates carefully selected and well trained to play a role in the review process were responsible for the eligibility screening. This screening reviewed all concept notes to ensure that they adhere to the guidelines regarding the length and language of the proposal and the country of implementation. As shown in Table 1 above, only a small minority of the proposals was not eligible, which suggests a good quality of the communication related to the call for proposals. Panels of four-five intern reviewers and a mentor then engage in a review of the concept notes by addressing how these notes answered a set of questions related to three areas: innovation/technical viability, sustainable development and business/financial viability. The MTR team feels that these questions adequately reflect SWFF's aims and objectives.

A scoring system was used to rank the reviewed proposals. The E-intern reviewers and their mentors then discussed more in depth the proposals above the cut-off score in the so-called TEC-1 (Technical Evaluation Committee) meetings in which representatives from the Founding Partners also participated. The TEC-1 process resulted in a list of semi-finalists who then were invited to submit a full proposal. As can be seen in Table 1 above, the number of semi-finalists represented less than 20% of the proposals received.

The MTR team considers the eligibility screen and the concept note review of good quality. The Team appreciates highly SWFF's approach to include young professionals in these phases. This is not only a cost-effective measure, but also an opportunity for talented young people to gain a unique professional experience. The approach is also appropriate in view of the considerable number of concept notes received. Limiting the concept notes to a few pages implies that no substantial investment is required from the innovators in the early stages of the selection process.

The semi-finalists were then invited to introduce a full proposal following a predetermined format to be posted through an online application platform. In that way, applicants cannot submit a proposal that is not complete. The components of the full application reflect well SWFF's aims and objectives and strategic choices, but certain aspects (sustainability, gender, involvement of/implications for the poor) could be more elaborate. The **full application review** was mainly conducted by the Innovation Investment Advisory Committee (IIAC) composed of external specialists that cover distinct focus areas: technical/innovation viability, business/financial viability and application in sustainable development. Before starting their work, the IIAC members are introduced to their task and receive a document elaborating the scoring guidelines. The IIAC has around 20 members who mostly have their roots in the northern hemisphere and do this job on a voluntary basis. Two members of each focus area (except for the sustainable development area that is most often covered by one expert only) review each application and independently assign a score through an online platform. As such this approach implies that each proposal is reviewed by 5-6 experts covering three different areas of expertise. The scores help to narrow down the list of semi-finalists to a finalist pool that includes roughly 50% of the semi-finalists. Scores and comments from the IIAC members are then sent to the Founding Partners, with each founding partner having the chance for two 'overrides' (removing and/or adding an application to the finalist pool).[18]

Representatives from the Founding Partners' missions and embassies are asked to review the finalist applications in the country where these are implemented, and to provide their advice that serves as an input for subsequent interviews of the innovators. These interviews are well prepared (interviewers get a review guidance note and the results of earlier review steps) and conducted by members of the IIAC and TEC.[19] Each finalist is interviewed once. For most finalists this interview was a tough yet positive

[17] The team's position is also based on its experience with the evaluation of other programs that use a call for proposals approach to come to a relatively small amount of proposals that are eventually selected via a selection process similar to that of SWFF.

[18] The Team has no information on whether Founding Partners have made use of this opportunity or not.

[19] The TEC in this phase is composed of the SWFF Founding Partners.

experience.[20] Most appreciated the chance to explain their proposal, which they considered a welcome complement to their submitted document; for them, this contrasted positively with other funding channels where decisions are made on the basis of documents alone. The different perspectives of the interviewers and their determination to challenge the candidates were also positively viewed. A few finalists state however that some interviewers were ill prepared, asked for information that was clearly explained in their proposal or apparently did not fully understand their innovation.

After the interviews, the full IIAC is invited to a meeting to decide on each finalist and give a positive or negative recommendation to the founding partners. (It was unclear to the MTR team how many actually attended in each round.) The report of this meeting contains, for each finalist, an enumeration of the IIAC's key considerations and voting results. The founding partners then meet to finalize the process thereby reviewing both the IIAC recommendations and (possibly) the mission/embassies reviews. As was the case in the previous stage, each founding partner has two 'overrides'.

The documents that describe the final decision making process reveal that in Round 1 the Founding Partners had a discussion on a substantial number of IIAC decisions and have changed the IIAC advice in three cases. In Round 3, to the Team's knowledge, only one recommendation of the IIAC was changed.

The above description of the selection process supports the conclusion that the selection process is well elaborated and adequately involves competences from within and outside SWFF. Further discussions and analysis of the MTR team have led to the following observations:

- First and most importantly, prior to seeking funding from SWFF, many innovations have gone through a rigorous and iterative conceptual, design and maturation process over a relatively long period that predates SWFF and its objectives, focus areas and selection criteria. As such, many innovators found themselves obliged to 'package' to some or even to a substantial extent their innovation to fit into the SWFF mold. This 'tailoring' process is common to many development instruments and not necessarily problematic. Discussions with innovators have shown this has nevertheless implied some ambiguity, which often has also influenced the implementation stage.
- Secondly and while SWFF centers around 'innovation', the MTR team has not come across a clear working definition of what is meant by an innovation and what criteria has been applied to classify a proposal as an innovation.
- The scores of the semi-finalists aggregating the assessment of three different types of experts proved to be a good predictor for the eventual result: in Round 1, 14 of the 17 innovations that were eventually awarded belonged to the top half of the semi-finalists (and 8 of the innovations to the top quarter); in Round 3, this was the case for all but one awarded innovation (7 of the innovations awarded belonged to the top quarter). This suggests a high level of consistency between the different phases of the full proposal review process. It should be noted also three Round 1 innovations that did not belong to the top half but were initially awarded originate from a Founding Partner country.
- Round 3 had the intention to source more innovations from the South as all SWFF partners felt that the South needed to be represented more prominently within the cohort of winners. The call for proposals did however not result in more proposals coming from Southern countries. In addition, SWFF did not want to compromise on the quality of the proposals.[21] However, Round 3 resulted in more southern winners. One interviewee suggested that reviewers might tend to consider innovations originating from the South as more successful because they are more grounded, while for those from outside there is a perception that the innovators take a more proprietary stance on

[20] Note that the team only spoke to finalists who were eventually awarded, which obviously constitutes a bias for our findings at this level.

[21] Discussions with other GC programs learned that the quality of proposals from the South was often much lower than those from Europe, South Asia and North America.

their innovation. Other factors that have might played a role are the 'How to apply for SWFF' workshops that have been conducted in South Africa, Kenya and Jordan (two eventual winners attended one of these workshops). In addition, SWFF increased its communication and outreach in the South and also gave a shorter, webinar version of the workshops that focused on completing a business model canvas and understanding the local context.

- The selection process takes a substantial amount of time: in Round 1 there were 10 months between the launching of the call and the announcement of the winners; in Round 3 this period was 9 months; this period is substantially longer than the period indicated in the call for innovations.[22] In addition, a few additional months pass between the announcement and the actual contracting and start of the implementation. Such a long waiting (or gestation) period might affect dynamics at the level of the innovators and eventual viability and sustainability of the initiatives.
- The final stage of the selection process (selection of the awardees among the finalists) has been completed through both a quantitative and qualitative approach that included the analysis of the mission/embassy reviews (in case such reviews were received). This qualitative analysis is understandable in the sense that in these stages the analysis of the inter-linkages between the different areas that each constitutes a building block of a successful innovation. As such, it is difficult to put one's finger on what actually makes an innovation adequate for funding or not. The present situation leaves the MTR team with some level of uneasiness as key stages in the selection process eventually remain poorly and only informally documented. This contrasts with the importance SWFF/USAID attaches to formal arrangements in the subsequent award, contract and implementation stages.
- IIAC meeting notes mention that (so far) in two instances there was a conflict of interest, so that an IIAC member could not participate in the discussion. There are clear guidelines related to conflict of interest in the "Conflict of interest and non-disclosure statement" that every IIAC member has to sign. Individuals having a conflict of interest can attend the discussion but are not allowed to intervene. This contrasts with the more current practice that will require individuals to leave the room during the discussion.
- The fact that founding partners have the final say in the selection process is an illustration of the fact that political considerations play a role in the selection process. While other programs often have entirely independent selection mechanisms, the MTR team has some understanding for the SWFF approach, as do the IIAC members interviewed who consider their role as essentially advisory. However, the high quality of the screening and selection process conducted by IIAC members that are widely recognized for their expertise actually provides a sound basis for placing the final decision at their level and setting a step forward towards more untied aid. The MTR team feels that at least the IIAC should be extensively briefed on why the Founding Partners did not follow their advice.
- The chance that an innovation eventually gets adopted and is brought to scale depends substantially on the skills, motivation, resilience, persistence and other factors of the innovator. As such, the personality of the innovator/initiator/entrepreneur is often a key consideration in (e.g.) business promotion programs and in many investors' decision-making processes. To the knowledge of the team, the SWFF selection process does not systematically look at the personal qualities of innovators while we think this could constitute an important added value to the process.

5.3. The pre-award survey

As most of the selected innovators have not entered into a partnership with USAID before, a pre-award survey (PAS) was tailored to ensure that all awarded innovators meet the USAID contracting requirements.

[22] The Round 3 call (p. 17) foresaw a period of 26-30 weeks including the actual awarding. The period foreseen for Round 4 is slightly longer.

The PAS deals with a broad range of issues including the organization structure and legal status, its internal policies and procedures, its financial and human resources management, etc. Eventually, awardees are required to submit a substantial number of documents to meet the requirements. The actual surveys result in a compound risk assessment score (high, medium, low) and, when needed, a corresponding action plan with corrective actions to be implemented by the awardee with the support of the TAF where needed. The entire PAS often covers several months and is in a substantial number of cases only concluded well after contract signature.

The views of the innovators with regard to the PAS process are nuanced. Overall the PAS is considered as a heavy process that requires much time and energy at a moment when innovators want to direct their attention to the start-up of their innovation project. Many innovators stated also to have experienced difficulties and uneasiness with what they describe as a 'typically American' way of screening of their organization; in one case an innovator experienced a highly 'intrusive' interview in which he was questioned on issues related to his personal life that clearly are not part of the PAS package. Many PAS requirements also disregarded the specific conditions of small organizations and start-ups (many innovations belong to this category). Round 1 awardees in particular made this type of comments. Frustration and anger related to what were considered serious anomalies of the PAS and start-up process even made the Dutch awardees consider stepping out of the program collectively. This incident seems to have triggered adjustments in the PAS process that remained however heavy and demanding; in addition, difficulties stemmed also from the fact that USAID faced capacity problems in the early stages of SWFF and that the TAF only became operational several months after the SWFF start-up. In any case, complaints related to the PAS intake process were found to be less pronounced for Round 3 awardees. In addition, negative effects should not be overestimated as most awardees in the end accept this burden as an inevitable consequence of cooperating with a public donor.

On the other hand, many innovators (and again predominantly smaller organizations) have indicated that the PAS process has also produced positive effects besides the discomfort it created. The PAS forced organizations to look in the mirror, which allowed them to become aware of shortages in their organizational setup and forced them to introduce improvements. The hard work imposed on the innovators forced them putting their house in order; often it has also helped innovators meet the requirements of other donors/investors.

The MTR team has only a few comments related to the PAS:

- Programs where awardees do not complain about the administrative requirements of the donor are still an exception despite continued official declarations of many donor agencies to diminish the administrative burden (as part of a broader results-based approach). Compared to other donors, the USAID PAS requirements are however particularly heavy, because they combine formal with program-related requirements. The Team feels the TAF has played an excellent role in attenuating the burden, by offering tailor-made capacity building and being creative in finding ways to alleviate the requirements while remaining within the contours of USAID regulations.
- The Team wonders whether a 'one size fits all' approach is needed and whether the level of pre-award requirements cannot be better tailored to the scale of the awarded organization and/or the level of funding awarded.
- A final and more fundamental observation is that the PAS practice is not compatible with the key principles of alignment and harmonization of the Paris Declaration that have been agreed by the global donor community to make aid more effective. The Paris principles among others require donors to use local systems and simplify procedures and share information. Applying these principles to SWFF would imply that the systems of the country of the innovator should be used to assess the 'awardability' of innovators and that the Founding Partners should exchange their information on the track records of innovators to smooth administrative processes.

5.4 Conclusions / Recommendations related to the selection and pre-award process

The selection and PAS processes are overall of good quality and to a major extent a reference for other similar programs. The ambition to promote SWFF worldwide has attracted a broad range of innovations that constitute a distinctive feature and a richness of the program. This choice for worldwide promotion has however an important flipside that requires substantial resources and adequate measures to be managed adequately. SWFF has done so to a major extent, but some issues require additional consideration.

The call for proposal process is well organized and largely effective. The Team feels however that promotion efforts should be reconsidered to source more proposals implemented in areas facing water scarcity. It should further be analyzed why so far SWFF has not sufficiently reached to some specific 'potential' areas such as the Maghreb countries and parts of South East Asia.

The selection process is largely of good quality and transparent. The two-step approach (concept note first, full proposal later) is adequate to avoid unnecessary efforts at the level of the innovators. In addition, the concept note and full proposal formats and requirements reflect well the SWFF aims and objectives and are limited to the information that is really needed to take well-founded decisions. SWFF in addition designed an original yet quality approach to efficiently transit from a high number of initial proposals to a sizeable number of innovations to be assessed in depth. The key role (along clear procedures) of the IIAC, composed of external experts with different backgrounds, is viewed very positively as it not only adds to a quality selection process but also increases SWFF's accountability. The same can be said about SWFF's provision to interview the finalists as a necessary complement to the information and analysis derived from documents.

As the team has no fundamental observations related to the selection process, its recommendations are of an operational nature mainly. The fact that Founding Partners can change to some extent the IIAC recommendations at two stages in the process can be understood but might be reconsidered to make SWFF fully untied. If a recommendation is overturned, the IIAC should at least be more extensively informed on which recommendations the Founding Partners did not follow and why. Transparency and accountability of the IIAC could be further improved by establishing clear rules related to conflict of interests and not allowing members to attend discussions on innovations in which they have an interest either as a promoter or a competitor. Finally it is recommended to formalize, via minutes, the content and results of the decision making process at the stage of both the selection (by the IIAC) of the awardees and the final selection by the Founding Partners.

The **Pre-Award Survey (PAS)** is a demanding process for many in particular small innovators. In the early stages the requirements, complexity and length of the process stirred much frustration. Things started to improve with the arrival of the TAF that managed to provide significant support and capacity building where needed and to simplify particular requirements of the SWFF. While being a demanding process, the PAS also produced positive results, as it obliged many organizations to improve their internal and governance mechanisms.

The team has one operational and one rather fundamental recommendation related to the PAS. At the operational level, efforts should be continued to further alleviate the administrative burden where possible. A potential solution might be to foresee different sets of requirements for small and bigger organizations, and/or to adjust the requirements to the financial support the organization is entitled to receive. As a side consideration, SWFF should be aware of the fact that innovators are often experienced hoppers that are scanning the entire financial and institutional landscape in search of funding. Not surprisingly, they opt for funding sources that are easily accessible and pose fewer requirements. As several innovators told the team, SWFF is not always the most attractive option (some even stated that in retrospect they would have gone for alternative funding). Reducing the administrative requirements will make SWFF more attractive, while the contrary might imply that it loses opportunities to fund interesting innovations.

Finally, the team has a few additional recommendations for further consideration, which are of a more overarching and/or fundamental nature:

- First of all, SWFF for obvious reasons (not least the fact that innovations are implemented in a rapidly changing environment) should undertake efforts to substantially diminish the period between the announcement of the calls and the start of actual implementation (i.e. de facto the transfer of the first installment to the innovator).

- Related to the previous point, it is important that USAID allow more flexibility in the PAS processes of its grants and contracts.
- Knowing that most innovations are largely if not entirely conceived and developed without any consideration to SWFF's objectives and criteria, it is worth considering whether it is not adequate to reduce the criteria to SWFF funding to a very minimum which could be framed as 'innovations dealing with the agriculture-water nexus and contributing to producing more food with less water'. Such a move would diminish the number of criteria and hence broaden the field for proposals; it might also trigger the genuine 'innovation' content of the proposal portfolio, as proposals would be less requested to align themselves with a set of pre-determined criteria.
- As most innovations will by nature not include a gender or poverty focus, SWFF should include gender and poverty considerations *consistently but realistically* in its approach, starting from the early stages (i.e. the concept note).[23]
- At a more strategic level, if SWFF wants to increase its poverty focus, a more fundamental move (in addition to other rather operational measures recommended in the previous chapter, among others) would be to earmark (at least) a particular percentage (for instance 50%) of funding to proposals that are implemented in countries with a low human development index;
- Linked to the previous point, SWFF should preferably engage in a reflection that more clearly delineates and defines what is understood by an 'innovation';
- Starting Round 3, SWFF has tried to increase the involvement of the South in the program. The team feels SWFF should step up its efforts in this regard, among others by intensifying promotional efforts in the South (in particular in drought prone areas) and by including Southern experts in the IIAC. Again linking to South Africa's membership and clarifying its offer as a partner should be a priority.

[23] This issue has already been raised in the recommendations of the previous chapter and will also be dealt with in more detail in the next chapter.

6. PORTFOLIO MANAGEMENT

6.1 Set-up and overall organization of SWFF and the TAF

In close collaboration with the USAID Water Office, SWFF is a program managed and operated within USAID's Global Development Lab with the support of a lean Technical Assistance Facility (TAF), under contract to the Kaizen Company, in consortium with H2O and SNV. It is recognized that keeping the program inside USAID allows SWFF to forge connections, navigate challenges and create a profile in a way that an outsourced arrangement would not. The Team Lead is widely respected as a dynamic, responsive and tireless figure who wears many hats in terms of portfolio management, representative functions, knowledge manager, selection manager, etc. Relied on heavily, the Team Lead keeps close tabs on the details of all aspects of the Fund and is "great at looking ahead and anticipating and navigating potential barriers."

To understand **whether the TAF is efficiently set up, organized and managed**, the MTR team first sought to understand the key roles that the unit plays. In essence, the TAF fulfills four main functions:

- *Assisting the innovators in navigating through the various prerequisites to comply with USAID requirements and procedures*
- *Supporting the acceleration of the innovation and the business towards market integration and scale up (via the AWP approach, organizing specific support, facilitating partnership, etc.)*
- *Tracking the awardees' progress through the milestones*
- *Providing broader management and communication support to ensure SWFF runs smoothly (including organizing and moderating calls of calls, aggregating data for wider reporting, etc.)*

The TAF's key role and function is to perform a bridging role between the innovators and USAID – basically to find solutions in view of complex USAID management systems. With a small team essentially providing consulting services for 30+ clients (including the innovators, the Founding Partners, the IIAC, etc.), conscious efforts have been made to optimize organizational systems that allow the TAF to respond to a significant volume of work under compressed timeframes. With the mantra of "We execute" and emulating a small start-up (though admittedly perhaps with less pressure on the profits and loss), the TAF team is good at finding efficiencies to manage a "substantial workload". Solid project management and mapping of competencies supports annual planning exercises that plot out assignments and tasks down to the hour to ensure clarity on who is to do what and by when, leaving little possibility for "scope creep". Working with interns provides a great opportunity for young professionals and in many instances allows the team to significantly increase its capacity, particularly for the initial application screening. It should be noted though that such practices can also represent false economies. Depending on the task and the competencies of the intern, as is well known, the management requirements to oversee their work can be significant.

While understandable in the early stages of establishing the TAF and perhaps still given the pressures to deliver, some interviewees suggest that there remains an overarching focus on process and systems over content, on marketing over analysis. Efforts to aggregate data into wider lessons for the various constituencies interested in SWFF's progress and findings are only just beginning (See forthcoming Gender Report as an example). The team however is strained in terms of capacity to do much in this regard.

Perhaps as a result of budget pressures, delegations of authority are not overly clear. An overemphasis on efficiencies and economies in practice means that numerous emails could be sent or calls placed over seemingly small decisions on minor spending, for example. Micromanagement appears to blur what is USAID's responsibility, TAF responsibility and the innovators responsibility. The MTR team was unable to determine where these had been clearly delineated, presumably in the Kaizen contract.

Responding to various critiques early on, widely appreciated across the board for its responsiveness and ability to learn from its mistakes, quarterly check-ins with the innovators help to keep everyone on the same

page. While SWFF has had a positive impact on innovations, the TAF (and Team Lead) are appreciated for playing an important role in mitigating to some extent the considerable amount of time and resources innovators have to spend to fulfill USAID's requirements. Some interviewees noted that USAID practices are an apparent contradiction with an ambition to source and effectively promote innovations and business development while using contracting tools that were conceived for managing more traditional development interventions. The sense is that while SWFF is helping to accelerate innovations, USAID's bureaucracy is having the opposite effect.

While the TAF has made tremendous strides through a steep learning curve, the MTR team would be remiss if it did not reflect the views of numerous Round 1 innovators that many avoidable mistakes were made while the team "constructed the plane in mid-air". "Things only seemed to change for the better once field visits were made," creating a greater understanding of the constraints that innovators faced. Apparently there was budget allocated to early visits of all awardees but visits have not occurred until some time later. There is clearly a sense that the SWFF team is listening more now to understand the circumstances and requirements of the innovators and not just emphasizing the requirements of USAID and the program.

As a relatively minor issue, in terms of efficiency, the MTR team notes some lack of consistency in the SWFF filing system. The system presumably works for those in the know, but is not altogether intuitive for those new to the program who require access. Given the wealth of documents stored, a quick guide for new users might be helpful. In terms of documentation, it was unclear whether there is consistency in how calls are logged and significant decisions or areas to keep an eye on at all levels are minuted.

6.2. Appropriateness of the support to the innovators

While the general response is that the SWFF team is highly responsive, helpful, friendly, and increasingly providing tailored support, there are understandable barriers built in to the design of the program between innovators and the SWFF team. This largely stems from the fear that they will lose the funding should they not meet their targets and milestones. In the early stages, several innovators commented on their confusion around who is who, who can take what decisions, what is the TAF's relationship to USAID and themselves, how (and whether) they could ask for support, etc. They also noted a feeling that asking for support would somehow be perceived as "a sign of weakness". Particularly after face-to-face meetings, it became clearer who was working on which aspect and that the TAF had been put in place to help the innovators both in navigating through the USAID system, but also in terms of supporting them to advance their innovation in the market. Significant progress has been made in terms of building up these relationships and innovators are nearly universal in their appreciation for the SWFF team's contribution, seeing them in some ways as "business partners" in their business venture.

In terms of **understanding the innovation in its context**, this inevitably happens once a visit has taken place. Otherwise and unsurprisingly, information and conversations are largely geared around the SWFF requirements, both of interest to SWFF and to the innovators, in terms of meeting their milestones to trigger further payments. More contextual information and analysis (around poverty, gender aspects, situating or positioning the innovation within public policy and thereby engaging the support of government, etc.) and all important for the overarching sustainability of the innovation seems to take a backseat.

In terms of **whether the right type of support is provided to the innovators**, all innovations and their contexts are unique, the business acumen of the innovators varies dramatically, the level of internal support they receive within their own organizations differs, etc. The diagnostic tool used to map out the innovators' needs is either seen as not too labor-intensive and thereby "not a big deal" for the more advanced, or "a helpful baseline" for the more nascent awardees. Some interviewees suggested that the primary focus of support is to turn innovators into entrepreneurs and business people. In fact, the kind of support required can take three different but obviously inter-related forms: 1) to turn the innovator into a business person (who can position the innovation and themselves in the marketplace), 2) to transform the organization into a viable business (with appropriate financial, human resources, record keeping, and other systems in place), and 3) to support the innovation in reaching a market (through partnerships, market analysis, etc.).

While not necessarily laid out along the three lines above, the TAF now offers 19 service categories of support. To arrive at the right kind and level of support, a 40-step flow chart is used (starting with in-house support first) and some 30+ 'certified' providers (increasingly and helpfully more from the recipient countries) are on call. In the main, innovators have found the support helpful although the process at arriving at the support package is generally seen as cumbersome, time consuming and rather drawn out for generally small assignments (under US$5,000). By all accounts, this is a new way of working for USAID, trying to be more deliberative and tailored, and so some of the sticking points are still being worked out. Round 1 awardees recognize and appreciate the improvements made. The MTR team suspects that lighter systems could be used for support packages under a certain amount (say US$10k, but certainly $US5k) versus the few more advanced and involved but rare support packages above this amount. In this instance, having these contracts with the TAF rather than with USAID should allow for easier procurement and could become part of an effort to allow more flexibility in the management of USAID grants and contracts. Simplifying this further seems essential, otherwise the handling costs across USAID, the TAF and the innovators far outweigh these small contract values.

Needless to say, the more advanced organizations are looking for very specific support (regulatory guidance on India, for example) versus the more nascent institutions that require more basic support in terms of establishing finance protocols and systems, and the like. The feedback is mixed in terms of contribution and perceived value for money but certainly improving significantly from the early days. Clearly the SWFF team have understood that hiring one or two companies to meet such a diverse set of needs was not helpful and thereby has sought to include a wider set of options for the awardees from which to draw. The system of constantly seeking feedback on the support received is certainly useful in determining how to refine the systems as well as which vendors understand the brief and can respond appropriately.

Fundamentally the MTR team thinks that innovators should be more involved in determining, designing and negotiating the support package with vendors. While it is understood that managing this process for the innovators saves them time and effort ("very happy for them to do this for me"), ultimately putting this ownership in the hands of the awardee, with help from the TAF in refining rather than defining, is also part of building up their business skills for the less advanced, and allows for more direct and tailored conversations for the more advanced. The MTR team contemplated whether, for example, the SWFF award would be for say US$450k over the three years but then US$50k per awardee might be made available for this kind of business support over the life of the grant. The onus is then on the innovator to play a stronger role in defining, sequencing, linking and negotiating the support. A template for the Scope of Work could easily be made available to awardees to help them think through the nature of the services they require. In theory, this might allow for awardees to source their own support locally, although this does not at present really fit into the scheme. Many suggest that, if using their own money (and costs notwithstanding), they would not necessarily source the same providers but rather use more local providers who are more familiar with their context.

An area that appears the weakest is the links to investors. Several innovators commented on the usefulness of support to design, practice and deliver pitches but that the forums to meet the investors were not very helpful nor did they really result in investors coming forward.

In terms of **level of effort and resources spent by applicants / awardees in balance with the added value SWFF brings** is difficult to assess particularly when looking at the SWFF contribution in its entirety. The level of effort in the application process very much depends on how advanced the business is. The TAF gets high praise for its support in helping the innovators to complete the Pre-Award Survey (PAS). While USAID may see the PAS work as helping to "assess the financial and organizational strength" of the innovators' organizations (as noted in the 2016 SWFF Semi-Annual Report), this has not been conveyed to the awardees who generally do not see it in this way. Several innovators noted that the stress of the first three months having to navigate through the USAID system led them to seriously consider withdrawing from the program. There was a sense from numerous awardees that the need for a full-time person to help sort out the paperwork was "crazy" and "ridiculous". When asked to quantify how much time they spent in administering (not implementing) the grant, several said around 5 days a month for senior staff and then

more time for junior staff. The paperwork was indicative of the bias toward the client and that the awardees should "be happy that we awarded you".

It is from this point that the innovators start to think that SWFF is not very sympathetic to the challenges of the innovators and the risks that they face. Several awardees noted that "the pressure is very much cascaded down the system." From the start, then the TAF have the challenging task of being caught in the middle and trying thereafter to create trust with the awardees that they are there to help them. A few innovators mentioned that they are never fully sure if they will be "hit with a new, unexpected and difficult form to fill out". There is the unhelpful sense that awardees feel that the rules could be changed midstream (with new indicators, new contract clauses, or other new requirements). That said, most recognized that nothing comes for free and that these are just the rules of the game to get the funding. It should also be noted that the TAF has gone to great lengths to simplify the process and to provide guidance notes for the awardees.

As per the recent 2016 SWFF Semi-Annual Report (from page 36), the summary of TAF metrics reflects well on the TAF. Two areas of slight concern include the "TAF understanding of the awardee" and noting the "TAF as helpful towards awardee goals". It is unclear why the target for each of these is set at 80% but in fact the response suggests that the TAF is only 2-3 innovators off the target. There is some work to do in this regard to maximize the **TAF contribution to innovations and business models,** but there is also a keen sense that the steep learning curve of the TAF is starting to pay off in terms of more tailored support to innovators as a function of a clearer understanding of the innovators' challenges and opportunities.[24]

In terms of support, what the MTR team was not able to establish was whether the SWFF team or the advisors were sufficiently influencing the strategic spend of the innovators to grow their business. There are investment lines in the budgets that the vendors provide. Whether the TAF support, mentoring, or other channels are helping the business to think through these investment decisions around, for example, production capacity, transportation, marketing, or other requirements was unclear. The goal is not to further encroach on business decisions but teasing out these aspects seems fundamental to understanding how the business will achieve scale.

As an aside, it is understood that the TAF uses the Business Model Canvas (an increasingly standard tool to review business strategy and positioning). A useful adaptation - the PPP Business Model Canvas (see http://www.ppplab.org/the-pppcanvas/) of Aqua for All in the Netherlands - might be helpful that incorporates more contextual factors around partnerships, governance, etc. This also relates to the point elsewhere in this document about continuing to seek ways of incorporating the competencies that the Netherlands, Sweden and South Africa bring to the table. For example, there is significant work being done through BoP Inc, Rebel Group and others in the Netherlands on how to support innovators.

6.3 Quality and effects of the SWFF M&E

SWFF M&E activities can conceptually be divided in two distinct categories. The first most obvious and probably most important part relates to monitoring and evaluating the progress realized by the SWFF awardees as a result of their own efforts and the financial and acceleration support of SWFF. The second part relates to monitoring of the performance of the technical assistance facility as such. Below we start with the analysis of the M&E of TAF performance and then will discuss the M&E of the SWFF awardees' progress. A third section of this sub-chapter discusses SWFF's decision to end the cooperation with six Round 1 awardees after one year, a decision that has largely been made on the basis of monitoring results.

6.3.1 Monitoring of the TAF performance

TAF monitors its own performance in various ways. Perhaps the most important but also most intangible part of performance monitoring lies in the frequent but rather informal discussions with innovators and other stakeholders that allow TAF members to increase their understanding of the innovation and also the

[24] Please refer to section 6.3.1 for further discussion of the TAF performance monitoring.

impacts of their own contribution. Considering their rather informal and qualitative nature, the MTR team has not been able to consistently assess the significance and effects of these informal monitoring efforts, but has found that many innovators highly value the quality and openness of their interaction and exchange with the TAF members (as noted above). The quality of the relationship is an important factor in developing effective monitoring particularly for learning and feedback loops. It is unfortunate that SWFF team member visits to many innovations only happened several months or even a year or more after the contract has been signed.

The TAF has several tools to monitor its own performance, the most important being a 'quality of service – overall' (QoSS) review in which the innovators are requested to voice their opinion on a broad range of issues related to the TAF support. While the first TA facility implementation report mentions TA facility monitoring, it does not provide information on any internal monitoring targets nor on specific activities undertaken in that period to let assess the TA performance by the innovators. Both the 2015 annual and the first 2016 semi-annual implementation reports present however TAF performance monitoring results. In the 2015 program, 21 indicators with their corresponding targets and achievements are presented. The information for these indicators stems apparently from different sources: internal data, internal top-down reviews, the QoSS reviews, etc. The indicators cover a broad range of issues including results of acceleration efforts (e.g. number of introduction to potential partners facilitated), results of quality of service assessments, on time delivery of monitoring results by the awardees, value of TAF services as considered by the awardees, etc. The semester-1 2016 implementation report includes a 'summary of TA facility metrics' that differs to an important extent from the 2015 indicators set and is composed of 30 indicators divided in five clusters related to the TAF's key activities: technical assistance and scaling; grants and financial management; monitoring and evaluation; communication, visual identity and partnerships; and TA facility administration.

The MTR team welcomes the TAF's initiative to monitor its own performance; there are indeed many programs where monitoring the quality of support systems is cruelly lacking. The team agrees that this constitutes an important component of the TAF's capacity to constantly adapt its tools, procedures and approaches on the basis of its genuine listening capacity and openness to scrutiny. While this is our most important finding related to TAF performance M&E, the MTR team has also a few observations:

- apparently (and in contrast with the innovations being supported) there seems not to exist a well defined, delineated and *formalized* (by the founding partners) set of indicators/milestones that are meant to inform TAF and other SWFF stakeholders on the key performance related to the key aspects of the TAF's mandate. Considering the key role of the TAF, it would have been worth the effort to *jointly* (Founding Partners, TAF and why not innovators) define a set of valid key indicators beyond satisfaction surveys. Such a formalized set of indicators would support SWFF's accountability as it would measure progress at the TAF level on the basis of performance indicators defined jointly by key stakeholders, comparing performance progress between different periods and as such lay down the basis for the TAF's accountability towards the Founding Partners and, ideally spoken, also towards the innovators and the public at large;
- the implementation reports lack (from an accountability perspective) important information on how the set of indicators was defined, how data with regard to the indicators were actually collected and which measures were taken to ensure data reliability. The team has the impression that these processes are largely owned and steered by the TAF team itself. The team feels that the Founding Partners should at least have provided guidance with regard to the content and data collection modalities of the TAF performance monitoring system; and
- related to the previous point, a substantial involvement of the TAF in collection M&E data on its own performance at the level of the innovators is difficult to defend from a reliability point of view. Indeed, as the TAF plays an important role not only in the innovations' support process, but also in decision-making around the continuation of innovators support, a few innovators noted their preference not to voice critique too openly towards the TAF.

6.3.2 Monitoring and evaluation of the awardees' performance and progress[25]

The performance of SWFF's portfolio is at the heart of SWFF's overall success: success of SWFF's awardees means success for SWFF as a GC and their failure inevitably casts a shadow over SWFF's performance and image. As such, it is no surprise that the monitoring and evaluation of the awardees' performance constitutes an important management task. The team therefore has attached much importance to this issue also. Below follows a discussion of the five aspects of the M&E system: *the way SWFF objectives have been translated in the M&E set-up, the actual quality and relevance of the M&E system, SWFF's ambition to aggregate the results achieved at innovation level, the way milestones are dealt with, and SWFF's decision to discontinue support to 6 of its 16 Round 1 innovators.*

Before dealing with these five aspects, it is however important to underline that the development of the M&E system at the level of the program has been conducted following an inductive approach going via different phases with a strong learning component. In March 2015, the different aspects of the M&E system have been brought together in a coherent document, the PMEP. While adopting an inductive and learning approach to elaborate an M&E system is often justified, the process has taken relatively much time but this seems justified in view of the innovative character of SWFF.

To **what extent were the SWFF objectives well translated into the M&E set up?** SWFF has developed sets of custom and standard indicators that formed part of the full application format used in Round 3 (not in Round 1).[26] Not all these indicators are relevant for all innovations however. Applicants are therefore invited to fill in the yearly targets for each indicator in their application but are allowed to skip indicators they consider irrelevant for their innovation. During the start-up of the acceleration support, innovator and SWFF team discuss indicators and their targets and then finalize these; the key results of this discussion are included in the contract. These discussions sometimes lead to modifications of the initial targets (that can be increased or decreased); key indicators and their targets become subsequently the backbone of the acceleration workplan.

In addition, regular *overall* portfolio reviews are conducted. The June 2016 SWFF portfolio review included additional indicators that mostly relate to the activity or output level (such as the number of operators trained, total installed water storage capacity, net pumping power, volume of seeds grown). In addition a set of scale scores are introduced related to communication and media readiness (3 levels), innovation stages (5 levels), level of evidence scale (composite indicator with 5 components) and investor readiness (9 levels). The portfolio review is conducted on the basis of a summary sheet for each innovator that besides indicator information contains the basic innovation information, the main strengths and weaknesses of the innovation, its focus on gender, its business model, etc.

From a conceptual point of view, the indicator sets constitute an adequate translation of the SWFF objectives. In other words, the proposed indicators are valid in the sense that they (can) measure what they are supposed to measure. In addition, they cover some key issues that need to be monitored to assess the

[25] In March 2015 the SWFF Performance Monitoring and Evaluation Plan (PMEP) has been drafted. The document describes how SWFF wants to monitor and evaluate program performance, both at the level of the individual awardees and the program as a whole; a third level is also foreseen: the so-called meta level which allows analysis across the grand challenges for development. The plan should contribute to SWFF's aim to consistently collect performance data that can inform management decisions.

[26] The *custom indicators* include: (1) expected adoption (number of consumers/households with a focus on the poor, benefitting from or directly involved in a SWFF innovation); (2) expected total product sales; (3) expected profit margin by product; (4) expected number of partnerships leveraged to improve the availability, distribution, and utilization of the product; (5) expected dollar amount leveraged through SWFF global and regional partnerships.

The *standard indicators* are: (1) hectares of land under improved practices as a result of your innovation; (2) percentage increase in crop yields in dry land cultivation; (3) agricultural water consumption reductions (by volume in L/year) as a result of utilization of the product; (4) volume of produce grown; (5) total volume of water reallocated to food value chain from this innovation (in L/year); (6) total increase in water storage capacity (m3)/(S) as result of SWFF innovation; (7) number of farmers financed to use your innovation.

development of an innovation over various stages and as a business venture. However, and as will be discussed in detail below, the challenge is not that much around operationalizing the SWFF aims and objectives in valid indicators, but to have a well functioning M&E system. Good indicators are a prerequisite but not at all a guarantee for a good M&E system. In addition to generic challenges to the set up of a good M&E system (see below), SWFF faces the additional challenge of adequately using its indicators in highly different agricultural settings (drought prone areas versus areas with more and/or more reliable rainfall, for example). A related additional question is whether some of the data collected at innovation level can be meaningfully aggregated: is it for instance possible to aggregate water reduction data from a drought prone area with those obtained from an area with reliable rainfall; it is obvious that the significance of the water reduction achieved can vary highly among such areas: a reduction figure that is very meaningful in one area might be negligible in another area.

The MTR team further has found that applicants are required to incorporate yearly (quantified) targets in their application. Considering the fact that the (institutional, political, economic, …) contexts in which innovations have to develop often change rapidly, in particular in developing countries, experience has proven that – *even in regular development programs* - it is often difficult if not impossible and even counter-productive to define targets upfront (in the case of SWFF innovations roughly one year before the actual start of implementation).[27] Many regular development programs (for which the results are generally far more predictable than those of innovations) often will only define targets in their first year of implementation. Innovations further often have a rather erratic growth path that lasts over periods far longer than the three years of SWFF support. Finally, overreliance on (the importance of) targets often produces perverse effects in the sense that reaching targets becomes the aim and provokes a quick-wins approach at the expense of harmonious growth and long-term sustainability.

A second important question relates to the **actual relevance and quality of the M&E system** for program management (including Founding Partners), the innovators themselves and other stakeholders. To start with, it is important to mention that the mistake most commonly made in the context of the establishment of M&E systems and their implementation is to overly concentrate on methodological issues (definition of quality indicators and corresponding data collection methods). While quality of indicators and data collection is obviously important, many M&E systems overlook other factors that in the end are even more important for M&E performance.[28] They relate, *among others*, to the following:

- *Does the M&E system relate to a comprehensive M&E policy indicating what to evaluate, why (accountability versus learning versus policy development), how, by whom and for whom?*
- *Is the difference between monitoring and evaluation clearly spelled out?*
- *Are indicators and targets disaggregated where needed; are baselines available?*
- *Is the need acknowledged to set priorities and limit the number of indicators to be monitored?*
- *Is the autonomy and impartiality of the M&E function clearly spelled out; does it dispose of an independent budget?*
- *Is there a clear approach to reporting and integrating M&E results in planning and budgeting?*

[27] In addition, defining targets upfront starts from the assumption that development interventions (in this case: innovations) are largely predictable and can be prepared using a blueprint planning approach. Since the 1980s, this approach has proven largely inadequate in the context of social and economic development. See among others: Korten, D.C. (1980) "Community Organization and Rural Development: A Learning Process Approach" in Public Administration Review September/October 1980, 480-511; Hulme, D. (1994) "Projects, Politics and Professionals: Alternative approaches for project identification and project planning" in Agricultural Systems 47, 211-233; Brinkerhoff, D. and Ingle, M., Integrating blueprint and process: A structured flexibility approach to development management, Public Administration and Development: 50 9(5):487 – 503, November 1989.

[28] This finding also applies for the PMEP, though to a minor extent. The questions formulated below might constitute an inspiration for elaborating further the PMEP.

- *Is there any indication on the quality of the data collected and the way they are reported on?*
- *Has the organization a genuine interest to develop the M&E function; does its leadership consider it important; is the M&E system genuinely 'owned'; are there incentives to guarantee quality data collection?*
- *What is the capacity of the staff having to deal with M&E; are capacity gaps recognized and addressed?*
- *What is the role of donors (in our case the Founding Partners) in these processes?*

To start with, it is important to mention that the initial SWFF M&E system (linked to USAID's mainstream Dev.Results tool) was largely considered as inadequate (complex, not entirely relevant, serving only the needs of the funding agency, highly demanding in terms of time and efforts needed). To the credit of the TAF, it has well understood this problem and quickly decided to develop an adapted system thereby using an innovator feedback group and conducting some pilot testing with innovators. The new M&E tool is considered a substantial improvement: it is described as user friendly and less demanding. One remaining drawback is that innovators have no access to the M&E data they bring to the system.

These positive developments notwithstanding, the MTR team has a few observations on the revised system as follows:

- the major strength of SWFF with regard to M&E is that, simply, it has a system in place and tries to get this implemented in a uniform way at the level of the innovations supported; the system is also clearly derived from the SWFF's objectives and incorporates higher-level objectives (a level that is often lacking in program M&E systems); as such, the system is capable of generating information that is relevant for program accountability, and strategic and operational steering;
- related to the previous point and having the findings of the previous sub-chapter in mind, SWFF, via the TAF, is very strong in using M&E data for learning and further planning and budgeting in close consultation with the innovators; relevant M&E results also help clarify areas for additional (internal or external) support.

These two positive considerations have to be nuanced to some extent by the following issues that hamper the effectiveness of the M&E system:

- there is much ambiguity around the final aims of the monitoring process and results: they seem to address internal learning but are also used for accountability purposes and eventually can lead to a discontinuation of the SWFF support; in such a context of ambiguity, there is a major chance that the learning and accountability purposes and processes become mutually incompatible and their quality affected: a few innovators stated even they purposely do not report that they are behind schedule hoping that they can catch up; whereas this is understandable, it deprives them possibly from exchange and support at the moment they might most need it; for some this is a starting position which then shifts once there is greater familiarity;[29]
- no clear distinction is made between evaluation and monitoring; some of the custom/standard indicators are actually outcome/impact indicators that mostly do *not* form part of monitoring systems as collecting reliable information on these levels requires specific measures and resources that fall beyond standard monitoring requirements (see also below);
- (partially as a consequence of the previous point) the M&E system contains a considerable amount of indicators without clear indications of priorities. Collecting information on all these indicators in a reliable way is a demanding task whereas most innovations have actually not the time, expertise and resources for it; it is often forgotten (also in regular development programs) that M&E requires

[29] See also our discussion on the use of milestone further below in this sub-chapter.

specific resources and cannot be dealt with as an add-on.[30] This adds also to our earlier finding (see chapter 6.2) that the management of the SWFF grant often requires substantial time from the innovators. This being stated, the MTR team partially understands the complex management around indicators against the backdrop of different expectations/priorities among the founding partners – some focus on target groups reached (USAID), others on water efficiency (NL), etc. The M&E information generated constitutes also a protection measure for the continuity of the program – it was stated that SWFF's reputation is in part based on the quality of the data (evidence) it is able to provide;

- the previous finding is exacerbated by a tendency, at the level of TAF/USAID, to get engaged in micro-management. The clearest examples are requirements to collect highly detailed information on beneficiaries (name, GPS coordinates, etc.). Such requirements constitute a substantial additional burden for innovators, in particular when they are not needed for adequate management and do not already form part of existing management systems. TAF/USAID should focus on results (outputs, outcomes, impacts), not on the input and activity level;
- as discussed elsewhere in this document, many innovations – in particular those not situated in drought prone areas – are not primarily conceived to reduce water or respond to other SWFF aims. This implies that SWFF's indicators might be of limited use for the innovators. In particular outcome indicators that are often most challenging in terms of reliable data collection belong to this category. As such, it can be doubted that the M&E system is genuinely 'owned' by the innovators: while they recognize its overall value (see also below), they strongly feel the burden, in particular when they are requested to collect data that are not useful for them. Experience with M&E systems suggests that lack of ownership is an important factor affecting the overall performance of M&E systems.[31]

A third element the MTR team wants to address **are SWFF's efforts to document higher level effects (outcomes and impacts) and to aggregate M&E innovator data at program level**, in particular presumably for external communication purposes. The MTR team fully understands SWFF's need to respond to external demands to account for the funds received and to promote SWFF and communicate about its achievements. However, the MTR team casts its doubts on the way this is presently done (i.e. by showcasing figures related to key indicators). Considering the methodological challenges and the fact that innovators are not necessarily well trained or motivated to collect the information, the team fears this approach at least partially cannot withstand a critical analysis and that there is a chance this backfires on SWFF. This can further be explained by the fact that aggregation is *always* a delicate affair, in particular when data are originating from innovations with substantially different key characteristics and being implemented in highly different social, economic, agronomic and climate contexts[32]. Below a few examples to illustrate our point:

- aggregated numbers of adoption by consumers/households tell little about the quality of adoption (direct versus indirect) and its effects on the lives and livelihoods of those concerned; the volume of produce grown is another example of an indicator where aggregation makes little sense. In addition, adoption numbers in the early stages of the innovation cycle tell little about the future potential as many SWFF innovations find themselves still in these stages.
- aggregated agricultural water reductions (in terms of liters of water) tell little about the actual significance of this reduction: small amounts of reduction can be highly meaningful in a context of

[30] Note that so far SWFF has not been too demanding in terms of the need to disaggregate some key indicators along gender and socio-economic position (poor vs. non-poor). In case SWFF wants to become more articulate on these issues, the M&E system will become even more demanding.

[31] See among others: Jody Zall Kusek and Ray C. Rist, Ten steps to a results based monitoring and evaluation system, A handbook for development practitioners, The World Bank, 2004.

[32] This issue is not yet addressed in the PMEP.

agricultural activity in areas with/times of water scarcity, it is less or not meaningful in periods for which rain-fed agriculture is being practiced. SWFF and the innovators have experienced many difficulties with this indicator that often requires complex calculations. The Team has come across a few cases where it considers these calculations as rather artificial, not that much from a purely technical point of view, but rather because 'water reduction' might not be a relevant indicator in that particular context;

- data related to outcome and impact level should actually be put in perspective as innovations related increases in (for instance) yields, income, hectares, production needs always to be situated as part of broader changes in the entire agricultural system of the households concerned. Indeed, innovations often cover only part of the agricultural activities; they might for instance lead to production and income but at the same time lead to the farmers concerned abandoning other agricultural activities (leading to a corresponding decrease in produce and income). Correct outcome/impact assessment should actually include such substitution effects; in addition in some cases (e.g. estimates of impact on yields) data collection should factor in the influence of other factors (e.g. climate, effects of other actors). This would require the use of randomized control trials. The team recognizes that this is far too ambitious for SWFF innovators to conduct in view of the high requirements (in terms of time, resources and complexity, in particular in the context of agricultural programs where the delineation of control groups is particularly difficult). These examples illustrate the limitations of genuinely reliable data collection by the innovators; in addition, they are an argument for SWFF becoming more elaborate in its communication so as to illustrate the complexity of fully assessing its achievements.
- the number of partnerships is an important indicator for SWFF. But this indicator is difficult to use as the notion of 'partnership' remains vague and was used in different meanings and contexts: on one side of the spectrum there are partnerships with organizations/partners co-responsible for the innovation and the delivery of its aims, on the other side there are functional arrangements between the owner of the innovation and other organizations that are actually contracted to provide particular services but do not have a real stake in the innovation (e.g. in one report *sharing office space and other resources with another organization was labeled as a partnership).*

The team's fourth issue deals with **the significance and use of milestones**. At this moment, two types of 'milestones' are used within the M&E system. Somewhat simplifying, the first type of milestone is content related, derived from the indicators in the application and constituting the backbone of the Acceleration Work Plan (AWP). The second set of milestones is defined on a yearly basis and provides the foundation for the tranched milestone-based funding; its milestones refer to the completion of key activities and the achievements of the annual (program) targets.

First of all, the team has found that the TAF has been highly instrumental in setting-up and fine-tuning the innovators' M&E system. For some innovators, 'M&E' was an entirely new notion and they feel grateful for the tailor-made support received. All innovators stated further that milestones are an adequate management tool and help them through the complexities of the development of their innovation and to remain focused and results oriented. As such, they can play an important role and a useful tool in structuring the relationship between innovators and TAF. As such, in many instances they are an important factor in the acceleration process. In addition, milestones can help innovators to 'sell' their innovation and for instance attract new clients. Most innovators also accept that milestones help to weed out bad ideas and practices and, when needed, should be used to provide the basis for decision making on the (dis-) continuation of SWWF support**.**

On the other hand, many innovators are critical towards the way SWFF is dealing with the milestones which some label as their fetish or Holy Grail… The innovators' dissatisfaction has various causes. Key is certainly that many innovators feel forced to 'swallow' indicators that have little if any relevance and usefulness for them and are only there to support SWFF's needs, that they need to spend substantial efforts in gathering information on these indicators and finally run the risk to lose their SWFF support if the targets related to these indicators are not met. Many stated they were not told either why these targets are so important.

There is the perception that TAF/USAID are not sufficiently understanding of the uncertainties that go along with scaling up innovations.

The MTR team largely recognizes both the positive and negative observations of the innovators and wants to add a few other elements that make the present milestones management rather contentious in a number of cases:

- first of all, dealing with so many targets is extremely challenging; as one innovator put it: *"We are not machines that can address simultaneously water efficiency, hectares, target groups, profitability, sustainability, gender, up-scaling, …"*
- as mentioned earlier, defining targets for three years and (roughly) one year before actual implementation can start, is most often not adequate; only for innovations that (start to) transit to scale (level 4 of SWFF's five innovation stages), it might be possible to realistically define targets (at least for part of their indicators); applicants might also be tempted to promise more than they can achieve to increase their chances for funding;
- some of the innovators interviewed stated having experienced undue pressure related to the definition of milestones and targets in the pre-award stage; a few declared they have given in to this pressure to safeguard their funding chances, knowing well that they eventually would not be able to reach the targets;
- in dealing with milestones, SWFF/USAID seem to insufficiently take into account that agriculture has an inherent element of uncertainty and that in particular climate change is leading to increased uncertainty;
- the MTR team wonders whether the M&E system as it is conceived now (with a strong focus on milestones) actually looks sufficiently at the strategy of the innovator to spend his/her funds: what is (s)he investing in to enhance its business (production facilities, transport requirements, marketing, etc.) and do these make the most sense … (but at the same time the MTR team recognizes this might be a step too far: in essence, it is up to the innovator to make his/her business decisions);
- finally, the Team wants to reiterate that the present USAID/TAF milestones related management practices are largely inconsistent with the ambition to create an environment of trust and support that enables learning and exchange and, eventually, effective acceleration support and progress. While highly valuing the USAID/TAF staff involved, several innovators suggested that they were reluctant to openly liaise with them, feel a need to always be prudent and avoid communicating openly about setbacks, etc. (while others were keen to be more open). This climate of uncertainty is also fed by the lack of clear criteria related to the continuation of the support.

6.3.3 The termination of the support to six Round 1 innovations

Towards the end of 2015, roughly one year after they started implementation, SWFF has stopped the support to 6 of the 16 Round 1 awardees. While it is commonly known that many innovations never make it (and therefore should be stopped as soon as possible) and the P-PAD document took this into account by anticipating that only 30-40% of the innovations funded would survive, the decision of SWFF has raised eyebrows, in particular at the level of the innovators' community. In view of the uncertainty related to the development of innovative start-ups, it is indeed a drastic measure to repel virtually 40% of its portfolio and to do so after less than one year of activity. The MTR team also found this a remarkable evolution and has tried to assess it more in depth despite operational difficulties (in particular in liaising with some of the innovators concerned).

After having studied 5 of the 6 cases,[33] a few observations can be made from the benefit of hindsight:

[33] One case could not be studied as the innovator (Driptech) in the meanwhile stopped its activities. It is not clear to which extent this has happened as a result of SWFF's decision.

- only in one of the five cases was the decision to stop straightforward; the innovator also basically agrees with SWFF in this case;
- in the four other cases, the MTR team is inclined to question SWFF's decision, the more because the innovations concerned are continuing their activities (with understandably some difficulties) and by doing so question the arguments on which SWFF decided to stop their support; some of the issues that constituted a reason to stop cooperation were resolved soon after the cooperation ended. This is – at least – an illustration of the resilience of the innovators and probably also of the chances for longer term success of the innovations;
- in the emails informing the innovators about the decision to stop, it is stated that promises made for particular pieces of support would be kept; this has not (or not always) been the case;
- innovators that do not receive support anymore become so-called "SWFF alumni"; it is however unclear what the 'alumni' status actually implies; so far, it seems to have remained an empty box. It certainly does not imply unconditional participation of the innovations concerned in SWFF's events.

Apart from these rather operational observations, the MTR team has a few other remarks that require more in depth consideration:

- the animosity around the decision to stop the support with some innovators has partially to do with the way milestones are presently dealt with, in particular milestones the achievement of which falls beyond the influence of the innovators (see above); as the present approach to milestones is in the MTR team's opinion partially counterproductive, the same can be stated with regard to the decision to stop the support to some innovators;
- more fundamentally, the MTR team has found the procedure and decision making process to a large extent less than transparent. While contractual issues are highly formalized within SWFF, there seems not to exist a clear procedure (let alone clear criteria) for stopping the support to an innovator. The final decision taken by the Founding Partners on the basis of the IIAC recommendations is based on information provided by USAID/TAF after consultation with the awardees concerned and often including notes of discussions with the awardees. During the process leading to the decision, the innovators are not provided any chance to defend themselves directly at the level of IIAC and Founding Partner meetings. Emails that some innovators have sent to USAID and/or the founding partners after the decision to stop the support had been made and questioning the arguments underlying that decision have remained unanswered and, to the knowledge of the Team, were never shared with the IIAC and the Founding Partners;[34]
- the lack of clear criteria that might 'allow' ceasing the support for a particular innovator might endanger SWFF's accountability; after having looked carefully at a few cases, it is not clear why some innovations that do not meet some of their milestones are discontinued while others in a similar situation are allowed to stay on board. This is in particular the case when innovators fail to meet milestones that are actually out of their control. Again, this calls for a clearly elaborated and transparent procedure for stopping support to innovators;
- the MTR team has the feeling that in particular USAID derives a sense of pride in sticking to the rules and parameters of the program and cutting innovators off when they consider innovators have failed. While there is nothing against being ambitious and promoting excellence, this can trigger a certain behavior that actually can easily become counter-productive and culturally difficult. Several innovators referred to certain behaviors that were unhelpful in forging good relations. The Team feels that without being naïve and soft, everything should be tried to safeguard the SWFF's investment in its innovations and institutional capital.

[34] In one case, an innovator contacted directly a founding partner to question the decision taken; the team ignores whether this information has been shared with the other founding partners, the IIAC and the TAF.

6.4 Conclusions / Recommendations related to the SWFF portfolio management.

Overarching feedback is that SWFF as a program is well managed, responsive to suggestions and changing circumstances, and that the staff are friendly and approachable. As a small team, it is understandable that more ad hoc or unplanned tasks are allocated based on who has some free time and a constant check to map out staff competencies that may be suited. This also means that at various points more expensive members of staff are tending to tasks (drafting, editing, graphic design, etc.) that could be outsourced more cheaply. Some effort should be made to revisit delegations of authority. The MTR team suspects that efficiencies are lost when small decisions involve numerous team members.

SWFF's M&E system deals in the first instance with the monitoring of the TAF performance, which to an important extent is conducted informally via regular interaction between TAF and other stakeholders. The MTR team has not been able to adequately assess the quality of this type of monitoring but feels that in particular at the level of interaction between innovators and TAF it has produced positive effects. TAF also undertakes important efforts to monitor its own performance and has to that effect developed a set of indicators and data collection methods. TAF's "consistent appetite to see how it can do things better, faster" is much appreciated. Further credibility would be afforded when part of the data collection would be implemented independently.

M&E of the performance of the innovations is key to assessing SWFF's overall performance and therefore has received substantial attention since the start of SWFF's implementation. The system has been gradually built up via a process that has demanded much attention and energy of all key partners involved; the various M&E components have been brought together in a coherent M&E document, the PMEP, which should however be elaborated further. The M&E system at this level uses valid indicators that have the potential to provide key operational and strategic information. Some of these indicators are however difficult to use in view of the heterogeneity of the innovations and the agro-ecological zones of their implementation. As a consequence, some of the data collected at innovation level cannot meaningfully be aggregated. As such, there are reservations towards SWFF attempts to do so, notwithstanding the fact that SWFF's need to demonstrate its outcome and impact is fully understood. SWFF might be seeking to prove too much particularly with regard to its donors' expectations. This has triggered some activities that do not necessarily add to the quality and relevance of the M&E: targets are formulated when the basis to do so is still lacking; too many indicators are included in the system, making it very heavy; a substantial part of the indicators concern information that donors might find interesting but not the innovators. Other points of contention are the lack of a clear delineation between the monitoring and evaluation functions and the lack of M&E resources and expertise at innovators level.

All these elements imply that questions might be raised about the reliability of at least some of the data generated via the present M&E system and approach. The use of milestones is another key consideration in this regard. While innovators quasi unanimously recognize the value and positive effects of the milestones, the way they are presently managed by SWFF is largely inconsistent with the ambition to create an environment of trust and support that enables learning and exchange and, eventually, effective acceleration support and progress.

This climate of uncertainty is also fed by the lack of clear criteria related to the continuation of the support and by SWFF's decision to discontinue the support to 6 (out of 16) Round 1 innovators after one year. The corresponding procedure and decision making process is however to a large extent not transparent. There seems not to exist a clear procedure and criteria for stopping the support to an innovator. The final decision taken at the level of the IIAC and later on the Founding Partners is based on information provided by USAID/TAF only without innovators having the opportunity to defend themselves.

Global / Strategic Recommendations:

- SWFF should be realistic about the challenges of bringing an innovation to scale in complex environments. Innovators suggested that they are already "spinning too many plates" but also being asked to dedicate significant time to addressing some milestones and policy directives that

may be less significant for their business at the start up phase. It should be recognized that the milestones shape where an innovator focuses his or her energies and efforts.

- Invest more in learning and exchange. SWFF innovation already constitutes (de facto) a community of practice that is highly valued by its members. SWWF therefore should invest more in events that bring innovators together and in creating broader learning opportunities (sharing of experiences, lessons learned and successes). This would be further supported by TAF/USAID taking the initiative to continue to connect innovators that can support and learn from each other and supporting the online exchange, created by innovators as a platform to share experience and make connections.
- Focus more on aggregation of lessons learned. SWFF is "sitting on a gold mine" of data on how to support innovators, what works, what does not … which would benefit from greater analysis rather than detailed description. This would help progress the way we work with innovators and what we expect of them. It is recognized that there is little time in the system at present to take a step back, understand what SWFF is learning and look at the bigger picture. This is much needed, however.
- The present M&E practice at innovation level which centers around milestones and innovators should be broadened to become more strategic and qualitative by incorporating elements that presently are already included in the SWFF portfolio reviews such as the assessment of the innovations' progress against the innovation stages (see recommendation below) and the innovations' key strengths and weaknesses. As such the M&E practice becomes more holistic and incorporates a broad range of issues that also allow incorporating rather qualitative considerations thereby taking into account contextual shifts and factors.
- Establish an open and transparent decision making process (with clear procedures and criteria) around termination of projects providing the awardees concerned to present their position via direct contact with the IIAC and founding partners. The discussions and the eventual decision should be formally documented / minuted. There is further a need to clearly identify the steps required to make it a learning experience for all. Considering the unpredictable nature of the development of innovations, a no cost extension of six months should be seriously considered in virtually all 'problematic' cases. In addition, only in exceptional cases should innovations be stopped when they fail to meet milestones they cannot control.

Specific / Operational Recommendations:

- Revisit delegations of authority within the team to maximize efficiencies around minor decisions.
- Recognize the hidden costs of managing interns. While interns make a valuable contribution, they are not in fact at no cost to a time pressured team.
- Switch the management of the external support delivery process to innovators and engage them more in managing contracts of services providers (define TOR, SOW, quality assurance). This is a key competence for any innovator and ensures ownership and helps build capacity.
- Make regular field visits an intrinsic part of the TAF's monitoring activities; a first visit should take place in the first quarter after signature of the contract. This would also help in defining and negotiating a realistic and relevant M&E system.
- Continue the efforts to monitor the TAF performance. Founding partners should be more involved in defining KPIs that provide the basis for a regular (6 or 12 months) assessment of key dimensions of the TAF performance monitoring. Avoid biases by entrusting the collection of sensitive monitoring data to third parties. M&E of the TAF performance should become part of the PMEP.
- At the level of the innovator performance monitoring:

- Invest in further elaborating the present PMEP which has been a first and good attempt to bring together the various dimensions of performance M&E in one system.[35]
- Clarify the aims and rationale of the M&E system – in particular the balance/relation between learning and accountability.
- Related to the previous point: maintain but improve the milestones approach. Milestones should be defined initially by the innovators without pressure and later on commonly agreed at the moment that experience, expertise and other aspects allows for defining *realistic* milestones. Milestones are further to be considered as an important tool for monitoring the evolution of the innovation, for learning and for adjusting strategy, approach and practices. They are essentially a means to ensure a transparent and open dialogue between innovator and support instances.
- As such, avoid making of M&E (and in particular its milestones management) the single most important decision making factor for discontinuing an intervention; on the contrary, try to create an environment where M&E supports rational and mutual analysis and decision making so that the institutional capital built up gets optimal chances and – ideally spoken – a hard decision (to stop support) is mutually understood and agreed upon
- Simplify the present M&E framework so that it becomes less demanding yet more reliable, while introducing at the same moment a clear distinction between monitoring and evaluation:
  - Monitoring indicators should only be indicators that provide information that is directly relevant for the innovator and his business
  - Evaluation indicators will be at the higher (outcome/impact) level and/or indicators that address specific and strategic SWFF needs
  - Some of the higher-level indicators might require a baseline. In line with what is proposed in the PMEP, this baseline is preferably constructed during semester I of the implementation; baseline formulation can coincide with formulation of targets (at least for yr. 1) and might be concluded at the moment of the visit of the TAF (see rec. 1 above)

- SWFF is recommended to include the five levels of innovations (as used in its last portfolio review) as a key indicator of its M&E system.[36] Thereby it is important to define more in detail the actual content of each level (inclusion of other indicators than the number of users only, which might not always be the best indicator) – each level becoming a kind of composite indicator (it might actually also be possible to design a scale from 0 to 5, whereby each level coincides with a round number 1 – 2 – 3 – 4 – 5).

[35] The elements below can, in most cases, be considered as suggestions to further elaborate the PMEP. This also applies for other recommendations formulated below.

[36] These five levels are: level 1: development – no users; level 2: initial pilot (<1,000 users); level 3: early adoption (<10,000 users); level 4: transition to scale (10,000 – 1,000,000 users), level 5: 1,000,000+ users. It is not entirely clear to which extent these levels form the indicators proposed in the PMEP.

7. PORTFOLIO PERFORMANCE

7.1 Level of achievement of intended outputs and outcomes

The question to **what extent the innovations have achieved their intended outputs to date** is difficult to address as most of the innovators have not been able to reach that stage yet. Realistically speaking, it is only the Round 1 innovations that could have been able to achieve their outputs. At an early assessment in May 2016, 6 out of 9 of the Round 1 innovators were on target, one was reported as 'unclear' pending clarification while only one had not submitted the needed information. However, due to unforeseen difficulties, delays in the start of project implementation have occurred among many Round 1 innovators and one of them was more than 5 months delayed. These challenges might relate to delays in receiving the funding or production or distribution issues, including, for example, a three-month border blockade as in the case of aQysta, an otherwise on target-innovation. Another successful example is World Hope International, which has succeeded in reducing growing time by 30% by the use of GRO Greenhouses in Mozambique and Sierra Leone. Due to unforeseen difficulties the sale of greenhouses in Sierra Leone has not been as successful as assumed.

The ICU Peru – Irrigation Scheduling System, a Round 3 innovation, provides an example of such unforeseen difficulties as it has not been able to set up any of the planned stations due to calibration issues and loss of providers. Overall, several innovators have been too optimistic in forecasting the periods needed to achieve particular targets.

The award period for the Round 3 innovations is officially 1 November 2015 – 31 October 2018 and as the initiation of the different projects therefore has taken place in early 2016 only, few of these innovations have been able to achieve any major outputs to date. One exception is the 'ICU Jordan- Groasis Waterbox' which although it could not start until late 2015, the innovation has been deployed in different sites throughout Jordan and although it has so far not fully met the expected outputs of water savings in the extremely dry country, there are realistic possibilities for it to succeed by October 2016. Two Round 3 innovations out of 11 were, according to the early assessment, on target, namely the Green Heat Uganda Ltd and the Conservation South Africa – EcoRangers. Key to their success thus far, Conservation South Africa's processes and market analysis are well-established and the structure highly organized. Green Heat Uganda already had a financial and business model in place and a clear understanding of the target market as well as the competition in this space.

There is obviously an important difference between stage 1 and 2[37] innovations when it comes **to what extent the local contributions in terms of investments by the entrepreneurs** can be met. The required local contribution for stage 1 innovators, for which close to all innovators are awarded, is set to meet the grant received. Few innovators have actually been awarded as stage 2 innovations. In fact, several innovations that presented themselves as stage 2 innovations were eventually accepted as stage 1 innovations. Even if the support from the TAF is "tailor-made" that could support different aspects of scaling, there might be several reasons behind not awarding a stage 2 status.

Most of the innovators have achieved the intended outputs or are expected to do so, particularly as most of them are still in the early phases of their up-scaling process. Often first-year expected outputs are delayed due to unexpected initial challenges in setting up projects in the countries in question.

The growth-path from one innovation stage to another might meet particular challenges, and innovations further up in the growth cycle might face constraints that cannot be solved via business support. For example, the financing by the awardees can not be "in-kind" for stage 2 awards but must come from

[37] The term 'stages' can lead to confusion within SWFF. We refer here to 'stage 1 and stage 2 innovations' as defined in the P-PAD. We do *not* refer to the five innovation stages as defined in the latest (June 2016) SWFF portfolio review.

external sources and must be provided on market, *quid-pro-quo* terms. If not established prior to the award, this will obviously take some time for this funding to be put in place.

The question whether or not the progress of the innovators is according to plan is difficult to answer, as there are no clear indicators on where each innovation finds itself on the continuum from inception to global adoption and how that relates to the initial plan. Some interviewees had the feeling that many innovations lack a real perspective for substantial up-scaling. Many of them are interesting initiatives, but remain very local, with little prospect for broader impact. As said earlier, it is known that many innovations eventually fail and SWFF is not designed to source and support ground breaking innovations stemming from fundamental research; other instruments are needed for that.

As a further indication of achievements, the MTR team was seeking to determine what influence if any SWFF has had on the strategic spend of the innovators to grow their business. (This has been referred to elsewhere in this document as well.) While difficult obviously to look at the counterfactual of what might have happened without the SWFF funding, some sense of why some investment strategies for the start-up was preferable to others would be instructive.

7.2 Contribution to impacts

So far very few of the innovations, including the ones resulting from Round 1, have reached a level where it is possible to measure any impacts or any societal changes to which the SWFF innovations are contributing. The Founding Partners should be tasked with quantifying and clarifying these impacts more clearly and the end of program evaluation will no doubt be able to dedicate more resources to unpacking these issues across the portfolio. Therefore the responses below, as per the MTR Terms of Reference, are to be seen as anecdotal examples of impacts to date, including contributing to:

- *increase of demand?*

This consideration is not clear. The MTR team assumes that it refers to the demand for the innovation. While they have clear targets / milestones for expansion, most of these innovations are still in their early pilot stages and thus too premature to reach out to substantial numbers of clients.

- *increase of water efficiency and productivity/make water more accessible?*

Some of the innovations, such as for instance the Groax-watercollector, will certainly increase water efficiency and make water more accessible for plants and trees as it clearly decreases evapotranspiration in drought-prone areas but the degree to which that is possible under other conditions and for other types of innovations varies to a large extent. Indeed for a number of the innovations, like Ignitia, increasing water efficiency is not really a direct goal of the innovation. For others, the savings, while important for communicating the purpose of the program, are difficult to assess as to their real contribution without really understanding the context.

- *increase of income, employment, water, other ?*

All successful innovations lead to at least some increased income, often as the result of very hard work of the innovators. The success of the Sandbar pumpkin-cultivation, for instance, has resulted in that the farmers (female farmers!) through pumpkin export including to Malaysia are increasing their income and buying cows as a result to increase income even more! But the expectations on income increase need to be realistic and context-bound. In the Bangladeshi case, that might imply a possibility to buy even two cows. Other innovations (such as the salt tolerant potatoes in Pakistan) offer clear perspectives of substantial income and employment increase.

- *climate goals?*

Most of the small-scale projects initially funded under the SWFF have a rather negligible impact on the climate, such as the aQysta-pump that currently is being installed in several Asian and MENA-countries (with other types of funding) on top of Nepal where it was originally developed. When being scaled-up, this innovation will by diverting water to some degree and also have an effect on the climate.

The question about to what extent the innovations **succeed in removing barriers related to (local) institutional capacity and lack of an enabling environment** is difficult to respond to as innovators often engage in other type of activities that do not form part of SWFF but are highly instrumental in building local capacities and creating a more enabling environment. One example revolves around how Practical Action in Bangladesh has invested in organizational capacity building of (mostly illiterate) women, empowering women to set up a successful value chain with the support of the NGO.

7.3 Effects on vulnerable groups and gender equality (See also Section 4.5)

The extent to which **vulnerable groups are benefitting** (and can actually benefit) very much depends on the nature of the innovation and its stage of development. The more technical an innovation is the more it might be difficult to see the (direct) benefits to poorer households, children, the elderly or disabled, at least in the short term. Unless the innovation is directly designed with the needs of these target groups in mind, it is unlikely to have this reach. In some cases it might mean finding ways to extend micro-credit (like with Aybar in Ethiopia, with the fish farm technology in Uganda, and others) or engage in partnerships with a not for profit actor (e.g. an NGO) who liaises with the vulnerable groups and builds their capacities and resource base to have access to the innovation. An example where the innovator is the direct partner with the poor is the Sandbar Cropping implemented by Practical Action, Bangladesh. Reaching these targets is a key emphasis of Sweden in particular but also the Netherlands and is being further emphasized in the 4th call. This poses a challenge for the portfolio, which needs to be addressed, as noted in other sections of this report (see in particular section 4.1)

Effects on gender equality including the access and control of women over the means of production, including by increased capacity-building, are issues of interest to Sida in particular, and will be prioritized further in the 4th call.[38] So far, the SWFF has shown some concern to include gender issues (in particular by focusing on the integration of women in the implementation by innovators; in insisting on sex-disaggregated data in some cases), but the approach of SWFF reflects rather a 'Women in Development' and not a 'Gender and Development' approach.[39] The Netherlands, according to interviews will rather see a broader poverty reduction/ inclusiveness focus and then have a look at the position of women in that approach. This should from their perspective guarantee that women are not 'forgotten' and that potential adverse effects for women are taken into account.

An example of an innovation where the gender perspective is strong is the Sandbar Cropping implemented by Practical Action in Bangladesh where all farmers with responsibility for the pumpkin cultivation are

[38] The SWFF presently is working on an internal gender evaluation that the MTR team could not really incorporate in its analysis.

[39] Since the early 1990s and especially since the Beijing conference in 1995, greater international attention has been paid to the gender dimension of development. Initially there was primarily the welfare approach, which approached women more as passive beneficiaries with an emphasis on their traditional role and corresponding demands. While some of these interventions resulted in positive effects, they left untouched the structural obstacles to gender equality. The ´Women in Development ´ (WID) approach that developed subsequently recognized the contribution women make to development, and especially targeted efficiency and poverty reduction. WID aims to integrate women in the development process and explains the inequality between men and women chiefly based on poverty levels; accordingly, this approach aims to eliminate poverty by better integrating women in the economic process and by improving their access to means of production (e.g. via microcredit). However, this approach above all aimed to integrate women in already established strategies and objectives, without much attention being paid to the perceptions and priorities of women.

The ´Gender and Development ´ (GAD) approach emphasizes the importance of the sociocultural construction 'gender' that determines the needs, rights, obligations and opportunities of men and women. Hence, the GAD approach is based on the idea that interventions in all thematic areas and at all levels (global, macro, meso and micro) are influenced by the existing structural characteristics (such as gender) of societies. Thus, interventions are not made in a social vacuum, and their effectiveness and efficiency are determined among others by the underlying structures and institutions that influence human behavior.

women, who also are the ones keeping the books and managing the finances, to some extent as a result of capacity-building under the project.

So far, no particular support has been provided related to gender issues. The voucher system as it is actually provides the potential for support in terms of gender, but innovators have many other priorities, i.e. to work out business plans to upscale their innovation (but gender could/should be integrated in these up-scaling efforts).

As noted elsewhere, if prioritizing poverty and gender issues, this has certain implications and needs to be highlighted early on in the process without ambiguity.

7.4 Sustainability

The innovations included in the portfolio (and their benefits) should according to the calls for application aim at being **sustainable (generation of private funds, sustainable business models, ownership, environmental sustainability)** and enable certain (new) combinations of expertise that would otherwise not have been deployed/used by the individual partners. Further the projects should result in a genuine ownership of institutions of southern countries.

According to the program presentation, the SWFF aims to "increase both the demand for and availability of innovative water technologies and approaches; increase adoption of those innovations at multiple levels (from small scale farms to large corporations); and improve the sustainability of innovations through robust partnerships and business-to-business relationships". What might be difficult is, however, to reach a long-term sustainability in contexts where the economic, the environmental, and the social aspects are to be carefully balanced.

Further it might be difficult to reach a long-term economic sustainability for those innovations that were terminated after the first stage, not having met all their milestones, notwithstanding the fact that some of these innovations still seem to do fairly well. Only one of those innovations have completely terminated its work while the rest, by using other sources of funding, are continuing their work although at a smaller scale, partly determined by the type and amount of funding received. As the program does not require any exit or transition strategy, the investments in and outcomes of those projects might be even totally lost, which jeopardizes the possibility to achieve sustainable outcomes. The awardees of the 4th call will be required to identify an exit or transition strategy to ensure no such losses.

Last but not least and as mentioned earlier, many innovators operate in an environment where grant funding is (often abundantly) available and obviously continue to look for grants even when those are not anymore strictly needed. Defining a clear pathway towards sustainability might in such a context not be a priority.

7.5 Conclusions / Recommendations related to the SWFF portfolio performance

It is so far difficult to determine the level of achievements of the innovations. Assessing impacts would even add an additional level of complexity, as it would require factoring in the external environment. The effects on vulnerable groups and gender relations are so far largely unknown, even though the MTR team has not encountered examples were gender blindness or lack of attention for the poor has led to adverse effects for these groups. This is also the case concerning a balance between economic, environmental and social sustainability.

By including a gender perspective into business strategies and plans, the potential of an innovation to scale increases. Addressing gender issues might improve the efficiency in the implementation of the business plan, as well as it might improve the social benefits, or outcomes, from the use of water resources. But SWFF should have the ambition to go beyond these efficiency considerations and make of gender equality an objective in its own right.

Where possible, it should be looking for women-focused innovations that target structures that influence gender power relations. As flagged elsewhere (particularly section 4.5), the MTR team notes that if SWFF wants gender aspects to be addressed more effectively, this needs to be integrated more consistently and

systematically at all levels of the program. SWFF might consider following the so-called twin-track approach including gender mainstreaming (the integration of gender aspects in the analysis and formulation of all policies and innovations) and the so-called specific (or positive) actions that target changes in gender structures and relations. This second type of action is crucial in domains that are governed by strong gender norms.

The MTR team further notes that all innovations must be sustainable. This means that all innovations must not only have the financial means to remain viable after SWFF funding has ended, but also be able to successfully integrate into the existing social and institutional ecosystem in the countries of implementation and provide environmental benefit (or at worst doing no harm).

8. SWFF OVERALL GOVERNANCE AND OVERSIGHT

8.1 Governance and oversight[40]

In terms of governance, the primary governance structure is through a steering committee of the Founding Partners. There is a clear understanding that the working styles, administrative procedures, attitudes to risk and political profiling vary from one Founding Partner to another and that this complicates the dynamics within the partnership. It is also recognized that the SWFF team is working hard to incorporate the interests of the different partners (scaling up, poverty focus, gender aspects, working in water scarce regions, etc.) but that addressing all issues and interests requires time, resources and also considerable expertise.

Weekly calls and regular emails helpfully keep representatives from The Netherlands, Sweden and South Africa up to date on progress, issues as they arise and activities of the SWFF team. As the implementing agency, USAID has a clear controlling role over SWFF. USAID establishes the procedures for implementation, frames the information provided to other Founding Partners, and drives the program. The USAID-led team responds to requests and queries and elevates issues appropriately up the hierarchy that they cannot address themselves. Representatives from The Netherlands, South Africa and Sweden each maintain a wide portfolio of programs and thus generally do not have the dedicated time to engage in the details of SWFF on a constant basis. The representative from the Netherlands has been constant since after the program was initiated. (Other colleagues were involved in the initial design and negotiation stages.) There has been significant turnover in representatives from Sweden somewhat as a function of the SWFF requirements based on stages of development (a finance officer was more involved initially to work out details of Sweden's contribution, for example) as well as due to staffing changes. The representative of South Africa, which joined more recently, has also changed. While turnover is understandable, it does create a lack of continuity and time is required to bring new people up to speed on the program.

The Founding Partners recognize the hard work and dedication that USAID brings to SWFF. They generally feel that their voices are heard, that the USAID-led team is available and **responsive to Founding Partner interests and requirements**, and they appreciate the invitations to participate in events and the constant flow of information. The Team Lead in USAID provides a "one-stop-shop" for all things SWFF. In the discussions, two issues emerged that might warrant further discussion amongst the partners – 1) that the flow of information could be aggregated at a less detailed and higher level for a more overarching sense of progress, constraints and lessons being learned; and 2) that the terminating of innovators is too "black and white" without sufficient analysis of the possible causes for delay in meeting the milestones and the steps that the innovators are taking to address the issues.

The Innovation Investment Advisory Committee (IIAC) brings together a wide range of experts to support the screening and selection process and the milestone review for SWFF. IIAC members (primarily from investment / finance and water backgrounds) scrutinize applications after a first cull is made by graduate student interns. IIAC members provide their time pro bono to make a considerable voluntary contribution to SWFF. The general sense is that this is a well-organized, thriving and dynamic space for debate, bringing together committed and interested experts. While not fulfilling a decision-making function, the IIAC is clearly meant to counterbalance the implementation arm of SWFF.

In terms of the **voice of different stakeholders**, further efforts are needed to include more voices from the global South in these discussions, and also potentially to include more social, political economy and governance expertise to balance the business and water expertise.

[40] The reader should please refer to Chapter 6 which provides significant detail on how SWFF is internally organized. Considering the pros and cons of different operational structures, the MTR team considers the structures appropriate and effective.

Overall the governance is strong and appreciated. A key issue that emerged numerous times in the interviews was around the multiple roles that the USAID Team Lead plays and whether there were sufficient checks and balances in the system. This is particularly relevant to how decisions are taken and whether there is sufficient transparency through discussion and documentation. Several interviewees questioned the **decision-making processes** within SWFF particularly around terminating awardees. Little feedback is provided to the IIAC in response to their advice on specific innovators. More formally capturing these decisions and sharing these with those involved at this level would be advisable. Separating out the decision-making levels more clearly, potentially with a paid IIAC Chair to oversee these processes, would take the pressure off the Team Lead to fulfill such a wide range of important roles but also to ensure that institutional memory is more widely embedded.

8.2 Conclusions / Recommendations related to SWFF's governance and oversight

As noted above, the MTR team has no major concerns with regard to the overarching organization, governance and oversight of SWFF. The team notes the appreciation for the highly adaptive approach. The only areas that warrant further attention is the feedback loops to the IIAC in terms of decisions taken and the need to ensure sufficient checks and balances in the system where information flows, decision-making and institutional memory are all primarily vested in or geared around the Team Lead.

9. LESSONS AND GENERAL TRENDS FROM OTHER SIMILAR INITIATIVES[41]

Given the limited time available to do a comprehensive review of different Grand Challenge funds, and recognizing that the significant differences might make direct comparison and benchmarking less meaningful (as noted in section 2.3 above), the section below is aimed at providing food for thought around trends in this space for the SWFF Founding Partners. Much of this analysis further amplifies the findings in other parts of this report. Recommendations specific to SWFF are noted in *italics* and embedded in the narrative below.

As conversations with a range of independent experts quickly revealed, Grand Challenges and related instruments come in all shapes and sizes and are a significant growth area, attracting more attention from financial institutions, philanthropic foundations and corporations as well as more "traditional" development agencies. This is in response to a range of factors by seeking to maximize impact by leveraging finance, engage different elements of the private sector, spur on innovations (including for the use of corporations), find more immediately responsive ways of doing development assistance, etc. All generally seek to coordinate the "application of scientific/technological, social and business innovation to develop solutions to complex challenges." For development agencies in particular, they can enable greater risk-taking behavior allowing them to move beyond their comfort zone.

Tailoring and linking these initiatives around innovations and start-ups for mutual learning but also to sequence support requires further thought and effort. As noted by Results for Development in their summary of discussions with a range of innovation fund investors, while there is value in having "different spaces for experimentation", these "typically exist in siloed pockets…, rather than as components along a coherent continuum."[42] Some efforts have been made, for example, by the Dutch MoFA to understand how their different private sector engagement funds, including the Sustainable Water Fund, fit along such a continuum (from idea generation to reaching scale). This remains a work in progress to understand how they fit together and best reinforce each other.

Related to this, the MTR team notes that various efforts are now underway to further distinguish between different modalities of Grand Challenges, prizes, impact investing, social philanthropy, etc. While they both generally use similar design features, USAID makes a helpful distinction between Prizes and Grand Challenges with the former being focused on achieving a stated and specific outcome. For the latter like SWFF's Round 1 and 3, Grand Challenges are focused around a set of issues with a more open-ended call that "enables the sponsor to test a wide range of solutions and use evidence from the implementation of those solutions to determine effective future interventions." (Taken from internal USAID note)

Alongside USAID's work in the Global Innovation Lab, analysis is being conducted to understand how best to design and use these instruments notably by groups like Grand Challenges Canada (GCC), Results for Development, Nesta in the UK, the University of Cambridge / Cambridge Institute for Sustainability Leadership (CISL), and others. Key issues currently being explored are largely around added value and include:

- How best to support the transition of good ideas and innovations to scale and at what point is it appropriate to measure the added value that the funding initiative brings;

[41] This chapter benefited from review by Dr. Nicola Dee, Fellow of Cambridge Institute for Sustainability Leadership, who specializes in entrepreneurship and innovation and has supported the development and review of numerous prize and challenge funds.

[42] Results for Development – Internal Notes from a Workshop on Innovation Funds, held at the April 2016 Members' Meeting of the International Development Innovation Alliance in Washington D.C.

- What public and philanthropic funding modalities (Payment by Results, blended grant/equity/debt, guarantees, etc.) help mobilize further private capital, ensure affordability for and thus uptake by poor consumers, and appropriately reduce the risk for the innovators, etc.;
- How best to align new innovations with developing country government priorities and policies;
- What contextual factors need to be considered (including the role of local "champions") to translate a successful innovation from one local "innovation ecosystem" to another;
- What are the key distinguishing elements for service/service delivery, social/business, and scientific innovations in terms of their paths to scale**;**[43]
- Related to the point above, under what circumstances do such initiatives distort the actual markets in which the innovators are active (i.e. potentially prolonging the life of an ultimately unsuccessful innovation); and
- What flexibility is required and reasonable (including around timescales for funding) to work within a messy and uncertain path for innovations to reach scale.

From this limited research, indeed in comparison with other similar initiatives, and as expressed by several innovators, SWFF appears to be more actively, directly and regularly engaged in the efforts of the innovators behaving almost like a "business partner". Lessons from GCC and others certainly confirm SWFF's approach as being at or ahead of the curve in terms of its focus on: 1) optimizing "the power of partnerships", 2) implementation prospects and barriers (to ensure that the projects and innovations that are funded meet the actual, on-the-ground needs of communities), and 3) the SWFF family of innovators as a network. This last point around SWFF as a network came up time and again in interviews both with those inside SWFF valuing this aspect highly and also with those from outside suggesting how critical such connections can be. Some surveys suggest that beyond the funding, peer-to-peer learning is the biggest attraction for and benefit to awardees. *SWFF's efforts to further foster this networking element of the initiative should be continued.*

SWFF's emphasis on milestones is a fairly standard part of the process now for most such initiatives. The rigidity of such milestones seems to vary in practice though. The key question raised by independent interviewees was "whether and how much dialogue is possible," with an understanding that such innovations may take time to address the business, market and target group, regulatory, patent (where appropriate) and other elements of becoming a successful and widely adopted innovation. SWFF's focus on measurement and results also proves critical particularly as a function of identifying, understanding and learning both to limit the cost and time wasted from failure but then also to share this learning more broadly. This *learning should focus not just on failure per se, but on patterns around inevitable uncertainty and messiness, and how start-ups tend to move in "fits and starts".* In fact, for many advocates of this approach and with the list of bulleted topics above as the primary areas of interest, accelerated and focused learning is becoming a key part of accelerator support and innovator networking sessions.

Cautious Comparisons – With such a wide variety of Challenge-type funding for different stages of the innovator's business, it is difficult to make direct comparisons on how SWFF rates in terms of selection processes and ongoing communications. Noting SWFF innovator interviewee responses with reviews[44] from 2012 of the BMGF Grand Challenges Exploration Grant Program, SWFF grantees appear to have a more positive experience all around compared to a wide range of other foundation and philanthropic grant programs. Care needs to be taken however as the BMGF sample numbers are exponentially higher than SWFF with a BMGF survey in 2012 of over 450 responses from GCE grantees and tens of thousands of grantees from over 250 philanthropic funders through a pro-forma online comprehensive survey.

While this would need to be validated through a more rigorous process that aligns with the Center for

[43] International Expert Panel review of Grand Challenges Canada September 2015, pg 14

[44] Conducted by the Center for Effective Philanthropy – Unpublished

Effective Philanthropy's approach, some assumptions can be made that SWFF grantees would rate SWFF highly in comparison to other similar initiatives regarding issues like SWFF's understanding of grantees' goals and strategy; because of the tailored nature of SWFF, of SWFF's understanding of the grantees' field; the quality of the funder-grantee relationship, which helpfully contributes to a range of other positive perceptions; the responsiveness of SWFF staff; and the level and (increasingly tailored) helpfulness of SWFF's non-monetary assistance.

Areas of less certainty include SWFF's effect on public policy in the awardee's field; time between concept submission and a clear funding commitment from SWFF where the average of all funders in the CPE survey is generally 1-3 months (again this reflects a wide range of funding levels from a few thousand US dollars to more substantial commitments); and the relative helpfulness of reporting and evaluation processes in relation to the grantees' own organizational needs.

Again subject to confirmation, one area where SWFF is less likely to score highly in comparison includes the average number of administrative hours spent by grantees on funder requirements over the grant lifetime. (Again this needs to be reviewed more carefully taking into consideration the requirements for a grant of a few thousand dollars with a more sizeable award. That said, many SWFF interviewees noted the significant number of hours spent in administering the SWFF grant.) As noted elsewhere in this document, efforts to reduce this burden have been appreciated by awardees but *more work could be done to challenge these administrative requirements particularly for nascent understaffed start-ups.*

A key issue related to this administrative burden is excessive monitoring, particularly as monitoring is always imperfect when dealing with the uncertainty of innovation. Eckhardt and Shane (2010, p4) note that "while well suited to encourage routine activity in stable environments, such monitoring systems discourage the creative activity necessary to exploit new technologies, because the application of technical knowledge to commercial applications is fraught with errors, blind alleys, failed experimentation, and surprise successes." Evidence suggests that incubation managers can be diverted away from core activities if monitoring is excessive. *SWFF should recognize the burden that this requirement places on the awardee alongside the awardee's own perception of benefit gained from these exercises.*

In terms of measuring performance or impact of the funds like SWFF, as Miller and Stacey suggest (pg 37), "as yet, there is no agreed framework... Common metrics collected and published so far include:

- Number of applications to programs.
- Number of ventures supported.
- Follow–on investment raised by ventures.
- Survival rate of ventures.
- Number of employees of ventures.
- Gender balance of applicants and supported founders."

From the MTR team's analysis, only two of these are truly meaningful in their own right without significant contextual analysis. Follow-on investment (and whether this was truly as a result of SWFF funding and support) and the survival rate of ventures, which might be too premature to determine, both provide a useful indicator of SWFF success. Based on innovator interviews conducted, the MTR team notes that the challenge of supporting awardees in identifying follow-on investment aligns with the critique for most similar programs.

Supply and Demand – According to Miller and Stacey, "many social investors are having trouble finding enough high quality ventures to invest in. This is largely because in general, these funds set a high threshold for their investments… [requiring] revenue generating, …a proven business model, measurable social impact and a management team with a strong track record." As noted by a couple of interviewees, several impact investment programs start off as Grand Challenge type initiatives. However, once they have identified a pool of likely viable and socially beneficial start-ups, they do not usually issue further rounds but will continue to work more closely with those businesses. Thus the Grand Challenge approach is used in the first instance to source investible ventures, recognizing that these will take time to be self-sustaining, rather than continuing to diversify the portfolio. The aim is likely to be different for aid donors who are seeking that diversity across regions, issues, target groups, etc.

As noted above, the primary implication here for SWFF is around helping innovators find **follow-on investors** who will be able to stay with them over a longer period. Indeed with many SWFF awardees having a social mission (i.e. pro-poor) balanced with the need for financial returns, efforts need to be made to ensure that interests of follow-on investors are not pressuring for returns too early. Several interviewees noted that forcing growth on a venture that is not ready can be terminal. Thus blending patient capital as well as more aggressive traditional equity financing may be required, particularly for hybrid NGO-business models. A further consideration is to ensure that investor requirements do not overly distort the target market for SWFF-funded innovators through direct or hidden subsidies. Paraphrasing from Miller and Stacey, otherwise this could result in 1) ultimately reinforcing the gap between those that can afford the innovation and those that cannot once the subsidies are removed, and thus 2) artificially prolonging the life of an innovation that cannot build or sustain scale without subsidies. *SWFF discussions with innovators need to be mindful of the aspects of target group affordability and business viability when supporting matchmaking with specific funders.*

Adding Value – SWFF's use of the IIAC as a formal sounding board throughout the life of the initiative (rather than at the screening stage alone) appears to be somewhat unique in its scale, engagement, and continuous contribution. Ensuring that some members of the IIAC bring an awareness of "entrepreneurial sensitivities" proves crucial. According to one independent interviewee, "neither the water stats nor the scrutiny of the finances will tell the whole story" and it is "easy to pick holes in applications from these two perspectives." Some IIAC members also play a useful role in mentoring innovators. One independent commentator asked whether the mentors were attached to specific innovators around particular SWFF milestones or whether they were linked to particular innovators for broader support and guidance for the business more generally.

Alongside mentoring, various initiatives are grappling with the most helpful design of different forms of accelerator support. According to one expert interviewee, pure accelerator support takes an equity share in the innovator's business with the understanding that a return on the investment may not materialize for several years (perhaps ten or more). While this is helpful for the innovator, it may limit the cashflow of the investor to support other ventures. The MTR team recognizes that this aspect of releasing funding for other worthy initiatives is a key driver for SWFF's approach to milestones. Taking some elements from the *Mentor Manifesto* noted in Miller and Stacey as developed by Ben Cohen, mentor and other support needs to be designed carefully so as to "guide but not control – recognizing that it is [the innovator's] company and not the accelerator's; provide specific actionable advice, don't be vague; be challenging and robust but never destructive; and have empathy, remembering that startups are hard."

Innovator Selection – Several interviewees mentioned a theme around choosing the right start-up to support. As Dee notes, "it is the startup's ability to be accelerated rather than the program's ability to accelerate [the start-up] which is key." (Dee et al., 2015 – p34) This relates to another comment made regarding the emphasis on adoption failure (suggesting that if we could just market an innovation differently, there would be adoption) versus innovation failure (where in fact the acceleration support, both financial and in terms of business support, artificially prolongs the life of an innovation through subsidy, marketing or otherwise when in fact the innovation is not likely to take off on its own). *A key selection criterion then should be somehow to gauge whether an innovation would take off anyway without SWFF support (but understandably taking longer).* Track record is an obvious indicator but too strong a track record suggests that other sources of investment could be found. It is these balancing, sequencing, and timing issues that make decision-making around SWFF so challenging. With regard to the milestones, not meeting milestones would result in being "alumnied" (as per SWFF's approach). On the other hand, easily meeting challenging milestones would suggest that SWFF's funding could perhaps be better used elsewhere, particularly where it is combined with complementary linking support to government policy agendas, NGO partnerships, or otherwise.

Reaching Scale – A further consideration that GCC has noted is the role that "large-scale implementation partners" (like multinational companies, global not-for-profits and ministries) can play in ensuring an innovation's adoption at scale. Thus, as noted elsewhere in this document and as recognized by the SWFF team, the focus on partnerships alongside those with investors and distributors from early stages could help

in determining a longer-term view of an innovation's trajectory some ten years out. Scale may also help bring the price point down. Thus working with innovators to reach scale in the market in terms of demand needs to be sequenced with the ability to provide *at* scale by increasing the innovator's production capacity. As noted in the GCC document on *Integrated Innovation*™ (published September 2010), a key selection criterion is emerging not around developing new products and services necessarily, but largely around assessing and assuring affordability for the mass market. Thus the business model with its capacity on economies of scale becomes more critical as a selection criterion than identifying innovative products.

Where the goal is to embed the innovation into a large-scale implementation partner, this needs to be done with care lest it get lost. (The literature also makes reference to the funding source and whether, like in USAID, such initiatives come out of a separate part of the organization, like the Global Innovation Lab. Without being fully integrated into the USAID Water Team, as some suggested, SWFF needs to be mindful of not "creating the impression of a set of 'cool kids' and the innovators who then can have trouble integrating lessons and new ideas with the rest of the organization…")

Another approach that some venture philanthropy groups are taking is to work towards enabling an entire sector and market to achieve scale. Indeed there is "still inadequate evidence… around the ability of these Funds to produce policy change and improvements to the broader ecosystem or enabling environment." (R4D) *This suggests that SWFF is uniquely placed to optimize uptake if innovators are sufficiently linked in to "other impact agendas" (of USAID, DGIS, Sida, etc.). Making these connections could make all the difference.*

Balancing the Portfolio – With regard to balancing the portfolio, "GCC takes a portfolio approach to managing risk, with a mix of lower risk/lower return and higher risk/higher return projects. It supports some projects that will deliver on a shorter timespan and some that will take 5–10 years to realize their full impact." Some initiatives focus on the "truly game changing" innovations whereby the impact from "one or two big, transformational successes in a portfolio can justify the opportunity cost of many failures."[45] For SWFF, this boils down to the level of risk that the Founding Partners are willing to take and whether they are looking for high-risk but potentially high reward ambitious game changers, or the somewhat more predictable. Kasper notes that in this regard, the Bill and Melinda Gates Foundation Grand Challenge Exploration "finds that it receives more innovative and ambitious proposals because… applicants are aware that they are competing against others in the quality and potential impact of their ideas, rather than in their preliminary data and results." (P31) This also relates to the screening process where the onus is on the reviewers "not to let the need for proof and certainty screen out potentially transformative opportunities." (Ibid)

Kasper further suggests that risk for funders can take two forms: opportunity costs and reputational concerns. Opportunity costs refer to the price of diverting funds away from grants with more predictable impact and toward experiments with a potentially higher likelihood of failure. Reputational concerns arise if [in this case a SWFF innovator's] actions could tarnish the name or brand of the donor and potentially limit the organization's ability to use its influence later in productive ways. (Ibid) Both aspects pose a challenge for public funders who need to be accountable to voters for the careful use of public money.

A clear suggestion coming from Kasper is to plot each innovation on a graph (or multiple graphs) to note the level of risk and the potential for reward (as defined in terms of scalability, transformation / game changing, or poverty focus, etc.). This should forge useful discussions amongst the Founding Partners around the various characteristics desired in terms of the balance of the portfolio and how SWFF compares in terms of risk with other venture investment initiatives. The MTR team was not aware of any similar risk profiling for SWFF's portfolio as a whole.

Balancing Social Mission and Intellectual Property – An interesting discussion emerges for social impact investors around intellectual property (IP). Some suggest that for innovators keen on the social good

[45] Kasper, G. and J. Marcoux. **The Re-Emerging Art of Funding Innovation.** Stanford Social Innovation Review Spring 2014. Pg30.

contribution to society that their innovation can make, the focus or emphasis on IP is less prevalent. In other words, they are less bothered about others (businesses, NGOs, or otherwise) marketing or distributing their innovations and in fact positively encourage this. This is perhaps the biggest distinction between innovators or inventors and entrepreneurs / business people. In discussions with some SWFF innovators, while they appreciate the SWFF focus on strengthening the business, this may not be their primary aim. Scaling, uptake, making a difference takes precedence no matter how this happens – thus the balance between social benefit and commercial viability becomes an issue for many innovations that ultimately provide a public good. It is also worth pointing out that some entrepreneurs may have more modest ambitions and are not seeking to rapidly achieve scale. Presumably SWFF is assessing these factors on a continuous basis. If open IP becomes a goal of SWFF or at least of some innovators, there are experiments taking place in the EU to create an IP bank that is openly available for exploitation. Some further work is needed to determine how to ensure that different parties use the IP appropriately perhaps through some sort of accreditation system that is capable of generating returns for innovators. In relation to this, the MTR team is unaware of a consensus or policy on innovator IP.

Concluding Comments – As noted at the start of this chapter, the MTR team hopes that this section provides food for thought for the SWFF Founding Partners in terms of trends in this space. By all accounts, as compared to the literature and also in view of the interviews conducted, SWFF appears to be with or ahead of the pack in terms of how other similar innovation funds or related instruments are designed and implemented. While a more comprehensive comparison might be useful, SWFF needs to be mindful of not comparing itself too closely with other instruments that have different contexts, goals, and partner policy considerations. That said, this chapter (modified as appropriate) might serve as the basis for discussion with other similar funds or at least with Results for Development, Nesta, or other institutions conducting research in this area to sharpen the analysis further.

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10. OVERALL CONCLUSIONS AND RECOMMENDATIONS

10.1 Concluding Comments

SWFF is an innovative and welcome initiative that challenges the funders and awardees alike to think and work differently together. As development cooperation needs new and fresh ideas, more risk taking and the more systematic and effective inclusion of private actors, SWFF provides a meaningful contribution to the sector. Many interviewees use SWFF as a positive example of an innovation in itself that aims to contribute to development thinking as well as to practical solutions on the ground. While the chapters above provide detailed analysis and a number of recommendations for the program, these are meant as refinements to the thinking behind and operations of a strong and well thought through program strategy and design. The MTR team fully endorses the move towards a SWFF Fourth Call for proposals and early discussions (well before a final impact evaluation) on a possible future iteration of SWFF.

As an innovation itself, SWFF inevitably has needed some time to define and implement an efficient and effective implementation modus, particularly under the rather "heavy regulatory requirements of USAID". The SWFF team's attention to detail but also openness and responsiveness to new information and stakeholder feedback as it becomes available is certainly a key strength of the initiative, all the more impressive given the small size of the team effectively managing a large and diverse portfolio of innovations and stakeholders.

SWFF's objectives and focus areas are relevant – addressing key issues in the water-food production nexus is an important contribution to make. SWFF has generally succeeded in blending the various policy objectives of its partners. Seeking to incorporate a broad range of key considerations into one coherent approach (including the specific focus areas, the ambitions to support acceleration and scaling, efforts to attract market driven financing, the increasing focus on the poor and gender aspects, amongst others) has not been without its challenges at the implementation level. Such challenges notwithstanding, the selection, pre-award (PAS) processes (and support), advisory facility support and other implementation aspects of the program are strong, albeit the selection process is somewhat lengthy and PAS processes cumbersome and "overly bureaucratic".

The MTR team finds that the worldwide scope of SWFF has its merits but questions whether it might have been more desirable to unambiguously focus on innovations that put forward solutions in areas that experience water scarcity or need to reinforce their water resilience. Efforts to counterbalance this notwithstanding, the majority of proposals received and innovations that have been awarded come from less water stressed areas.

Most innovations that have been awarded deal with water efficiency issues with far fewer dealing with water capture and storage or saltwater intrusion. Most funded innovations are so-called stage 1 innovations with stage 2 innovations making up a quarter of the portfolio. Africa, Asia and South America are all fairly well represented in terms of where the innovations are implemented. Efforts have been made with some success to attract and award more innovators from the South in Round 3.

The diversity of innovations found within the portfolio and the business orientation to ensure viability of how the innovations fit into the market are key strengths of the program. Several innovations are attracting global attention. Acceleration support and general capacity building is particularly relevant for smaller organizations or start-ups. More developed innovators require more tailored support which has been forthcoming from SWFF more recently. Many innovations are designed and developed in a hybrid context of development aid (with its inbuilt subsidies) and market realities with innovators having generally good linkages in both 'worlds' and trying "to eat from various plates". Several also stem from NGOs that seek to transition the innovation into a business model. Towards this end, several innovators noted that the market is not the driving force behind their work but rather a social contribution. With this and other factors in mind, SWFF needs to be mindful of how the program requirements (around water savings, collection of

performance data, and other aspects) force innovators to retrofit their innovation to fit the mold. The MTR team discussed whether SWFF could more effectively take each innovation at its own intrinsic value and contribution (and limitations), thus allowing for a more nuanced and tailored data collection set and communications on the impacts of the program.

In terms of support, what the MTR team was not able to establish was whether the SWFF team or the advisors were sufficiently influencing the strategic spend of the innovators to grow their business. There are investment lines in the budgets that the vendors provide. Whether the TAF support, mentoring, or other channels are helping the business to think through these investment decisions around, for example, production capacity, transportation, marketing, or other requirements was unclear. The goal is not to further encroach on business decisions certainly but teasing out these aspects seems fundamental to understanding how the business will achieve scale.

SWFF has invested in developing an M&E system, both related to the performance of the TAF and the program-level objectives and outputs. While both components have improved over time, there is still room for further improvement around key issues including the ways of monitoring TAF performance (to become more independent), the way data related to water reduction and storage can be calculated and aggregated, the use of milestone indicators, M&E ownership (part of the M&E data to be collected are of little use for the innovators), and – overall – the balance between the accountability, learning and policy support functions of M&E.

10.2 Overarching Recommendations

The reader should note that the report includes a wide range of global / strategic as well as specific / operational recommendations throughout. Rather than provide a comprehensive list from each section of the report, the MTR team views the recommendations highlighted below as of primary importance at a macro level for discussion by the Founding Partners to further reinforce a program that already benefits from significant strengths. Towards that end, the MTR team suggests that **at the more macro level**, SWFF should:

- Continue to systematically contribute to the [thinking around the] evolution of the GC model as a key instrument of ODA, as part of a sequencing of and harmonizing with other financing modalities, and how it aligns with government policies in countries in which the innovations are funded. [The pros and cons of GC modalities should be tested more systematically against traditional development approaches for effectiveness, sustainability and impact under different circumstances.] Now that systems are in place, SWFF should be investing more in institutional learning and institutional memory.
- Continue to reinforce and invest in the "SWFF community of practice" approach between innovators, and with SWFF as part of a wider network of GCs and related initiatives as part of SWFF's contribution to learning at the program as well as innovator levels. As noted, SWFF is "sitting on a goldmine" of learning based on the experiences of the innovators specifically and the initiative more widely.
- Support further contextual analysis and potential linkages (partnerships) with other initiatives at the innovator level regarding adoption of innovations. SWFF should be tapping into all potential linkages within its Founding Partners and wider network to support innovators, including through the use of the Catalytic Fund, to help transition to more mainstream initiatives.
- Continue to increase the 'Southern' content of SWFF, not only by undertaking specific measures to source high quality southern proposals, but also by considering how to more genuinely and effectively include the views of the South in the design, implementation and evaluation of SWFF. This would mean more southern voices on the IIAC, continuing to actively encourage South Africa's role and potentially that of other southern governments as a partner, continuing to work with and through southern vendors, continuing to foster innovator-to-innovator sharing platforms, etc.

At the operations and Implementation level, SWFF should:

- Consider emphasizing or delineating future funding to innovations that are implemented in areas facing water scarcity (or expected to do so in nearby future) and/or that build water resilience.

- Recognize that SWFF is *not* in the first instance a program aimed at combatting poverty or promoting gender equality – there are other initiatives aimed specifically at these goals. However, SWFF should:
    - Ensure that a certain percentage of innovations are implemented in countries with a low human development index.
    - Ensure, in terms of gender and the poor, that no innovations are funded that work against the interests of women and the poor or weaken their position in terms of empowerment. Better still, SWFF should focus on business models that have direct or strong indirect benefit for the poor and women and lead to affordability for the poor as a priority.
    - Ensure that gender and poverty considerations are more comprehensively addressed through the proposal and selection stages and M&E processes with targeted support provided where needed. This means broadening SWFF's acceleration services to include gender advisory services according to identified needs.
- Seek ways to further reduce selection time and the burden of PAS processes (particularly in recognition that the context in which innovations are conceived and develop can change quickly).
- Continue efforts to provide a more differentiated approach in the acceleration support process. This should reflect the environment (low vs. higher level of development); the type of organization in charge of implementation (based in the North versus in the South; research institution or NGO or for-profit organization); the level of advancement of the innovation, business model, market and other related factors; the level of need to build resilience to cope with water scarcity and the engagement of government (through policy, regulation, its own business acceleration efforts, etc.); and the kinds of indicators that are most meaningful for the business with regard to water use (and otherwise). This should also include customized analysis of the transition requirements for hybrid social/NGO (with commercial arms) to market-based initiatives.
- Work with other GCs to help identify links to a pool of appropriate investors that would be interested in SWFF innovations.
- With a view to recognizing and balancing the various functions of M&E (accountability – learning – policy support), clarify further the aims and rationale of the M&E system (including the different role and function of monitoring and evaluation), maintaining but reviewing the milestones approach so that it becomes a tool (among others) for dialogue, learning, and decision making on adjustments related to future implementation.
- Define clear procedures and criteria for the termination of support to awarded innovations, whereby the procedure should include the opportunity for innovators to defend themselves directly at the level of IIAC and FP decision making levels.
- Consider secondments from each Founding Partner to enhance their contribution and with the express purpose of bringing learning back into their organization.

ANNEX 1: SWFF MTR TERMS OF REFERENCE

1.Introduction

As stated in the partner's program approval document of SWFF, a mid term review (MTR) is required for the SWFF program. The MTR should assess progress in the achievement of the objectives of the program and distill lessons on strengths and weaknesses of SWFF. The MTR will inform policy and design decisions of SWFF for the remaining two years of the program.

The MTR will also draw lessons on the functioning of the SWFF instrument by comparing it with a selection of comparable instruments: other Challenge programs, including those of USAID, Sida, and MFA-NL (Powering Agriculture, Africa Enterprise Challenge Fund, Sustainable Water Fund FDW, Grand Challenges Canada, and the Bill and Melinda Gates Grand Challenges).

2. Background information on SWFF

Four founding partners have embarked on the SWFF program: USAID, Sida, The Netherlands MFA and South Africa DST. The goal of the SWFF program is: to source and accelerate innovations that will enable the production of more food with less water and/or make more water available for food production, processing and distribution in developing countries (OESO/DAC 1-4). Innovations are sought in the areas of a) water efficiency and reuse; b) water capture and storage; c) salinity and water intrusion.

The SWFF program will in the end have supported at least 30-40 proposals focusing on a wide range of innovations and located in any of the 140 eligible OESO/DAC 1-4 countries.

Expected outcomes of SWFF:

- At least 8 proposals / innovations that improve water availability and efficiency in the food chain have been adopted, brought to scale and/or commercialized by businesses in least developed and low-to-middle income countries (see p 58 of partners PAD);
- Demand for and availability of these innovations have increased.
- More food has been produced with less water or more water has been made available for food production in the eligible countries (NL aim in line with NL policy is 25% resource efficiency improvement by the program innovations as compared to standard practice in the implementation countries; Sida aims for 20% resource efficiency improvement by the program innovations as compared to standard practice in the implementation countries).
- This program will also contribute to increased water-related resilience to climate change (climate change adaptation).

Impact indicators are:

- Percentage food productivity / volume water increase;
- Volume of water saved through efficiency-increasing innovations in the food value chain
- Volume of water captured and stored for food production
- Percentage increase in agricultural yields / farmed area due to SWFF innovations
- Number of direct beneficiaries of the program
- Number of innovations adopted, brought to scale, and/or commercialized
- Number of additional demands for the innovation

As has been uniquely demonstrated by cell phone technologies and applications, innovation can be an engine of economic growth that benefits the poor. Through SWFF, we will source and accelerate high potential solutions that will have multiplier effects at various levels of a country's economy. The following

three development hypotheses (theory of change) will contribute to SWFF's overarching objective of making more water available for the food value chain and/or enabling production of more food using less water. The following three hypotheses are both meaningful and practical measurements of SWFF's development impact potential:

1. By investing in science and technology innovations at the water and agricultural nexus, the pace of development in both sectors will be substantially faster than if we relied on "traditional" development programming alone. The basis for this hypothesis is that science and technology play key roles in creating economic growth opportunities through entrepreneurism, investment, research and development, partnership, technology commercialization, and wide-spread technological adoption – including adoption by the poor. Adoption of SWFF innovations will either have direct economic benefit on end users by increasing efficiency and/or profitability, or indirect economic benefit by improving food security writ large.
2. By sourcing technologies and business model innovations that have already demonstrated potential at the pilot stage, SWFF-supported innovations have greater likelihood of being brought to scale (reaching at least 1 million people). The basis for this hypothesis is that a sufficiently large number of proven technologies already exist and many are already on the market. These technologies require adaptation and/or validation for local markets and/or in-depth support for wide scale growth and distribution. Early stage innovation require a higher level of support, testing, and – most importantly – time. Based on our analysis, SWFF investments are best placed at the post pilot stage. In addition, a lesson learned from previous Grand Challenges, only 10-20% of innovations supported from previous Grand Challenges have strong potential for wide-scale adoption, even after having being taken through a rigorous evaluation process. Using this lesson learned, SWFF has designed a milestone-based tiered grant structure so that we only continue to fund the most promising innovations over time.
3. By investing in acceleration-oriented technical assistance and facilitating partnerships, we will substantially increase the likelihood that awardees will have the knowledge, tools, and resources to bring their innovations to scale. The basis for this hypothesis is that grant financing alone will not be enough to bring any innovation to scale. Partnerships with the private sector, government, NGOs (for distribution), and others are necessary to (among other things) accelerate business-to-business linkages, catalyze investment, improve distribution, and ultimately stimulate adoption.

Overall Strategy and Design

The Founding Partners share a vision of development assistance not as a subsidy, but rather as a resource to catalyze investments by others, which will lead to sustainable solutions for development and poverty alleviation. With an overarching goal to "Source, incubate and accelerate high-potential solutions and/or business models that find new and sustain existing water supplies as well as lower overall water demands benefitting the food value chain to reduce water scarcity and poverty, *Securing Water for Food* will use a combination of open calls for innovations[46] and hands-on acceleration support for awardees.

CORE ELEMENTS

Securing Water for Food will issue multiple calls for innovation. The strategy for the overall *Securing Water for Food* GCD includes eight core elements:

- **Understanding of the local enabling environment for technology and business innovations.** Applicants must be able to articulate the social, institutional, legal and regulatory challenges for the innovation, and describe how they will overcome those barriers. This includes a requirement for applicants to have local partners and market research that can describe local market conditions. A

goal of this program is to improve the chance that supported innovations are scaled to find sustainable sources of water and produce more food using less water.

- **User centered design, not technology for technology sake.** The Founding Partners recognize that thousands of water technologies exist but are not being utilized. In many cases this is due to a lack of understanding of the needs of the users in developing countries. Securing Water for Food will emphasize the importance of the end-user in its criteria, funding decisions, and subsequent evaluations. We will not fund innovations that are not tailored to, or supported by, end users in developing countries.
- **Use a variety of instruments to reach innovators.** Securing Water for Food is an "innovator-driven" rather than a "donor-driven" program and the Founding Partners will use a variety of instruments (e.g. grants, credit guarantees, advanced market commitments, prizes) to reach innovators. The instrument will be chosen based on the type of engagement and outcome we seek.
- **Build sustainability into the fabric of the program:** All winning innovations must be sustainable (financial, institutional, environmental, technological, and social).
- **Facilitate market-driven partnerships:** Science and technology enables the creation of new products and services. These must then be tested, validated, and disseminated through market-based models. Thus, *Securing Water for Food* will facilitate solution/approach-based partnerships between entrepreneurs, investors and funds, corporations, governments, NGOs, and others.
- **Leverage market-based financing:** Funding provided from the Founding Partners under *Securing Water for Food* will be milestone-based. Additionally, all winners will be required to have 40%-60% matching market-based financing.
- **Stimulate innovative financing to scale water technologies and businesses.** We anticipate using investment bridges, credit guarantees, advanced market commitments, and other innovative mechanisms to support businesses that have good prospects for profitably commercializing water generation, storage, salinity reduction, and more efficient end-use technologies in the agricultural sector in developing countries. Based on existing mechanisms and past experience, we expect to facilitate the use a combination of grants, equity, debt, and guarantees to support innovative financing efforts. For example, we may use grants to incentivize and/or buy down risk for lenders and investors that may not otherwise invest in businesses in the water/food security nexus in developing and emerging countries.
- **Scale doesn't happen through financial support alone:** In no instance have we found financial support to innovators to be enough. We have therefore purposefully built a robust, hands-on acceleration "track" into the design of *Securing Water for Food*. This will include a mix of hands-on acceleration work planning, one-on-one mentoring/coaching, facilitation of debt and equity financing, and facilitated participation in Investors' Circles, marketplace presentations, trade shows and technology fairs. Additionally, we anticipate providing financial support to business acceleration entities or brokers providing technical assistance to water technology businesses and enterprises.
- **Intellectual property rights of innovators are protected:** As noted in the grants and contracts of innovators from other GCDs, the Founding Partners claim no right to the intellectual property of innovators. That intellectual property remains in the hands of innovators. In general, innovators may retain the rights, title and interest to Intellectual Property that is first acquired or produced under SWFF. The Founding Partners reserve a royalty-free, worldwide, nonexclusive, and irrevocable right to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, in any manner and for any purpose.

The SWFF Founding Partners (USAID, Sida, DST and MFA-NL) share the common goal of advancing international development through improved access to sustainable water sources for agricultural applications. Values that are common to the Founding Partners include sustainability, efficiency, sourcing of market-based solutions, gender inclusion, climate adaptation and mitigation, benefit to poor people, and a commitment to avoid negative effects (particularly with regard to water-related services).

The SWFF Founding Partners recognize that often 100 investments are made in the private sector to get one successful innovation to wide-scale adoption. SWFF aims to have at least 20% of the innovations it supports reach wide-scale adoption. In order to do so, USAID (the lead program implementer) has contracted the SWFF Technical Assistance (TA) Facility to provide a number of the TA services and assist USAID in the implementation and help awardees accelerate their progress in order to reach wide-scale adoption. The Innovation Investment Advisory Committee (IIAC) provides advice on selection of awardees, assessment of progress and determination of benchmarks to make sure that the Founding Partners support those innovations that most likely will achieve success. To date, three calls for proposals have been announced and selection of awardees completed.

3. Objectives of the MTR

The independent review on the performance of SWFF 2014-2015 (three calls), aims to:

> Improve SWFFs effectiveness in achieving the objectives of the program, provide concrete recommendations for the assessment of the applications in the fourth call, as well as provide input for future planning beyond 2016.

The review will focus on two main topics:

3. Providing insight in the current portfolio and its potential to contribute to the expected development objectives: early results. (***Effectiveness, relevance****)*
4. Assess the functioning of the instrument, its strengths and weaknesses and lessons in achieving the program objectives: process (efficiency, relevance).

Review information and recommendations will aim to contribute to:

- Providing direction to the development of the future of SWFF (in sourcing, selecting and assessing the fourth call, TA including M&E etc).
- Improving the relevance of the program.
- Providing insight in current portfolio.
- Enhancing the achievement of results.
- Optimizing use of human and financial resources.

I—EARLY RESULTS: Effectiveness and Sustainability

Effectiveness (in terms of impact) of SWFF funded interventions will be assessed in due course through the impact evaluations in 2018. This MTR will assess the general progress to date of SWFF funded innovations and the potential of these interventions to contribute to the development objectives. The main points arising from this MTR will constitute the basis for the sample of activities to be visited and focus of follow-up interviews with stakeholders in the field for the End-of-Program impact evaluation in 2018.

The findings from the desk study will lead to general conclusions and recommendations and answer the following research questions:

- Focus on poor: Do the innovator consortium members have adequate knowledge of the local situation, livelihoods (m/f), envisaged benefits to the target group (m/f) and sustainability of these benefits?
- Progress: To what extent did the interventions to date achieve the intended objectives (given the timeframe most likely outputs)? Are the interventions in the SWFF portfolio on track towards their intended outcomes?
- In which way do SWFF interventions contribute to realization of development goals?

- *To what degree is there demand and local ownership for the innovation?*
- *To what degree do vulnerable groups in societies benefit (pro-poor focus, inclusiveness, gender) (income, employment, water)?*
- *To what degree can the innovations increase water efficiency/make water more accessible?*
- *To what degree is ecological sustainability of interventions ensured and followed-up?*
- *To what degree are the innovations likely to be sustainable by the organizations supporting the innovation?*
- *What is the balance between public/social engagement and private/public engagement? To what extent have private funds been generated that contribute to the developmental objectives of the program?*
- *To what degree does the SWFF program contribute to climate goals?*

- To which extent does SWFF contribute to source and scale innovations to save water in the food chain?
  - *What types of innovations have been supported in these projects?*
  - *To what degree have innovations managed to increase demand?*
  - *What improvements have been made in water productivity?*
  - *What types of enterprises are participating and with what kind of (financial) interests?*
  - *To what degree are financing/business models sustainable and is further private financing mobilised?*
  - *To what degree are barriers in (local) institutional capacity and an enabling environment taken away?*
  - *What improvements have been made to innovations and business models with support of SWFF, hence contributing to scaling innovations? Is the right type of support provided to the innovators?*
  - *Does SWFF enable certain (new) (combinations of) expertise to be deployed that would otherwise not be likely to be deployed/used (by the individual partners)?*
- Is the proposed SWFF program strategy appropriate? What other factors could have contributed to the observed results?
- Does the SWFF monitoring system provide relevant, measurable and appropriate data for the evaluation of sustainability, progress and impact?
- Should the program be extended beyond 2018 or, if not, what should the exit process be?

II – PROCESS: Relevance of the instrument

- Describe the portfolio of awarded innovations. How many innovations have been awarded funding? What type of awardees?
- How relevant are the interventions that have been made to the achievement of the programs intended outcomes and impact?
- Does SWFF provide good opportunities to source relevant innovations? (size of funding, outreach to applicants, selection of awardees, frequency of calls)
- Were the stated SWFF objectives including sustainability, cross cutting issues like gender and the analytical framework clearly defined in the policy frameworks of the respective founding partners and relevant for the current developments in the global water sector?
- Were the SWFF objectives well translated into the appraisal framework for applications?

- Were the SWFF objectives well translated into the M&E set up?
- Does SWFF work with the most relevant partners to ensure an effective and efficient program?
- How appropriate and effective are the organizational structure of SWFF?
- How appropriate and effective are the communication strategy and support activities for applicants?
- Does the portfolio of SWFF comprise of relevant projects as compared to other comparable instruments of USAID, SIDA and/or MFA-NL? What are notable differences; what are recommendations?

Efficiency of the instrument

- To what extent are the SWFF results to date in balance with the level of effort and resources spent?
- To what extent is the level of effort and resources spent by applicants/awardees in balance with the added value SWFF brings?
- How effectively have investment risks been managed by the program? (number of failed projects, timeliness of reaction on problems observed etc.)
- To what extent are adequate financial controls in place and are fiduciary risks well managed? (timeliness disbursements, conditions to be fulfilled by the grantees for disbursement etc)
- To what extent is the TA Facility efficiently set up, organized and managed?
- To what extent is the Technical Assistance provided by the TA Facility relevant to SWFF innovators.
- To what extent are the administrative costs for managing SWFF above, below, or on par with the cost of similar Challenge funds? (Special Consideration should be made for funds that provide technical assistance to their awardees.)
- How well do founding partners interact with SWFF and what are the recommendations for improving the effectiveness and efficiency of this interaction?
- To what extent have governance arrangements permitted and facilitated the effective participation and voice of different stakeholders?

  - Is the governance structure transparent?

  - Do the different donors feel that their interests and objectives are represented in the program?

3. Methodology

The external evaluator is expected to use a combination of qualitative and quantitative methods, including:

- Desk review of relevant documents to be provided by USAID, TA Facility, awardees and of other relevant documentation including the gender evaluation.
- In-depth, semi-structured interviews with stakeholders (In a few instances, the external evaluator may be able to interview ultimate beneficiaries through stakeholders, but will most often use site visit documentation for that effort). These should in any case include relevant staff from founding partners, TA Facility, members of the IIAC, a selection of applicants.
- Questionnaire surveys;
- Video and/or teleconferencing;
- Observations;
- Selected site visits due to time constraints and funding limitations. Local consultants will perform field visits to the following innovations in the following regions for 2-3 days:

- S. Asia: Adaptive Symbiotic Technologies, SWAR
- LAC: Puralytics, Climate Stations Peru
- Sub-Saharan Africa: TAHMO, Reel Gardening
- Middle East/North Africa: ICBA, Buried Diffuser

This group was chosen to give a balance of Rd. 1 vs. Rd. 3 innovators, as well as current SWFF innovators vs. SWFF alumni.

- After week 2, based on interviews with key informants and initial reviews of documentation, the external evaluator will draft an evaluation plan showing the information required to answer the review questions, including how this information will be collected and discuss this with the founding partners.

The MTR will draw on SWFF innovator site visits examining program implementation, organizational strength, as well as the effective water productivity and efficiency gains by the awarded innovations. These and other findings will be matched with secondary data from research on similar innovations. For the Final program Evaluation in 2018, the MTR findings along with individual field evaluations by graduate students will be used to gauge program effectiveness. Data used for the MTR may include information from rejected proposals and their applicants.

The SWFF Founding Partners recognize that the mid-term evaluation is limited in not having direct interaction with most awardees through site visits. This decision was made because we want to make sure the evaluator has ample time to review the voluminous existing program documentation time, budget, and other practical considerations.

The Founding Partners also recognize that the evaluator is not able to perform a counterfactual review given that SWFF does not have a control group of innovations that are closely paired/match with the awarded innovations to truly determine the effectiveness of the program. Rather, the Founding Partners request that the evaluator highlight both the strengths and weaknesses of SWFF innovator sourcing, selection, innovator support, and M&E as compared to other existing Challenge programs. In addition, the Founding Partners request realistic, cost-effective, and implementable suggestions from the evaluator that the Founding Partners will review and potentially implement. These suggestions should be deemed reasonable, actionable, and functional.

The MTR will include a comparison with five other comparable instruments (of USAID, SIDA and/or MFA-NL) on the functioning of the instrument of SWFF: call for proposals, ex ante assessment of proposals). This will be done through desk reviews of (mid term) evaluations and semi-structured interviews with account holders and stakeholders. Those comparable instruments are: Grand Challenges Canada; Powering Ag: An Energy Grand Challenge for Development; Sustainable Water Fund FDW; Africa Enterprise Challenge Fund and the Bill and Melinda Gates Foundation Grand Challenges Program.

4. Deliverables

- MTR- plan
- MTR- report

MTR- plan

Two weeks after the start of the assignment, the evaluator will prepare an evaluation plan, which will contain:

- A description of the key issues to be evaluated including the evaluation questions.
- Criteria and (proxy) indicators for assessing the relevance, effectiveness, and efficiency SWFF.
- A final proposal for the methodology and sample selection.

- An overview of division of labor between the evaluation team members, and needed input from others.
- List of specific questions and concerns relating to the evaluation to which founding partners and TA Facility will respond.
- A detailed program for interviews and consultation meetings.
- List of key documents and resource people for the evaluation.

MTR- report

A draft MTR report which will contain at least:

- An overall review of the relevance and effectiveness of SWFF to date.
- Recommendations for the assessment of the fourth call for proposals. With reference to relevance, efficiency, institutional arrangements including TA.
- Recommendations for the longer term, or other similar challenges. Prospects for increasing leverage and impact.

The draft MTR report will be discussed with IIAC and founding partners for their review and use in decision-making. It will also be shared in the USAID Development Exchange Clearinghouse As the report is being finalized the Founding Partners will:

1. Meet with the evaluation team to debrief and discuss results or findings and provide feedback on any factual errors;
2. Review the key findings, conclusions, and recommendations systematically;
3. Determine whether the team accepts/supports each finding, conclusion, or recommendation;
4. Identify any management or program actions needed and assign responsibility and the timelines for completion of each set of actions;
5. Determine whether any revisions are necessary for SWFF; and
6. Share and openly discuss evaluation findings, conclusions, and recommendations with relevant stakeholders, unless there are unusual and compelling reasons not to do so.

The final evaluation report, to be written in English, will be completed and submitted by May 22, 2016.

5. Staffing and resources

Staffing

The MTR team will consist of 7 independent consultants: 3 full time, 4 part time.

External independent lead consultant (1): will be contract holder and responsible for deliverables. Minimum 15 yrs experience in M&E, with a focus on either institutional arrangements or water/ag sector marketing in developing countries, gender and people's involvement, with good understanding of the policy environment of the founding partners. In addition, this individual must have experience evaluating Grand Challenge innovation programs.

External independent consultant (2): Supports lead consultant. Minimum 15 yrs experience in partnerships in the water sector in development context, with a proven track record in major evaluations, will be contracted to support the lead consultant. One of these two individuals must have experience evaluating Grand Challenge innovation programs.

External independent local consultants from 4 regions to provide more regional/country specific context to the related innovations for the following regions: S. Asia, Sub-Saharan Africa, Latin America/Caribbean, and Middle East/North Africa (4): Supports lead consultant. Minimum 10 yrs experience with marketing of

water/ag related products and processes and or water productivity technology adoption in developing countries and proven track record in major evaluations.

Time input

Lead: 40 days, within total timeframe of 2 months

Consultant 2 and 3: 40 days each, within total timeframe of 2 months

Consultants 4-7: 15 days each, within a total timeframe of 2 months

The time allocation may differ, to be proposed in the MTR plan.

Time frame

The MTR will start on March 24th, 2016 with preparation of the evaluation plan. A kick off meeting will be organized in the third week of March with a presentation of the draft evaluation plan. Monthly feedback sessions, chaired by USAID, attended by the Founding Partners will be organized to keep track of progress. The review is to be completed by May 22, 2016.

Funding

The MTR will be funded by the SWFF program up to $175,000 USD (subject to the availability of funds).

ANNEX 2: SWFF MTR REVIEW FRAMEWORK

1. OVERARCHING QUESTIONS

1.1 Were the stated SWFF objectives including sustainability, cross cutting issues like gender and the analytical framework clearly defined in the policy frameworks of the respective founding partners and relevant for the current developments in the global water sector?

- Extent to which SWWF stated objectives are part of the policy frameworks of USAID, DGIS-NL and Sida *(what about South Africa?*)
- Extent to which policy frameworks of founding partners include the sourcing and acceleration of the production of more food with less water and energy
- Extent to which focus areas of SWFF (water efficiency and reuse; water capture and storage; saltwater intrusion) are included in the founding partners' policy frameworks
- Extent to which SWFF policy/strategy/approach related to sustainability is included in the founding partners' policy frameworks
- Extent to which SWFF policy/strategy/approach related to gender is included in the founding partners' policy frameworks
- Extent to which SWFF' analytical framework is included in the founding partners' policy frameworks

1.2 Does SWFF enable certain (new) (combinations of) expertise to be deployed that would otherwise not be likely to be deployed/used (by the individual partners)?

- Extent to which SWFF has encouraged individual partners to liaise with other types of expertise (as evidenced in proposals)
- Number and type of partner organizations for each innovation awarded (as evidenced in implementation reports)
- Number and type of other expertise deployed during implementation (other than via formal partnerships)
- Extent to which innovators agree with the statement that SWFF encouraged them to use expertise they otherwise would not have resorted to

1.3 Should the program be extended beyond 2018 or, if not, what should the exit process be?

1.4 How are expansion, transition or exit strategies developed?

2. PORTFOLIO ANALYSIS

A. Portfolio performance

A.1 What types of innovations have been supported in these projects? (Describe the portfolio of awarded innovations. How many innovations have been awarded funding? What type of awardees?)

A.2 Is the proposed SWFF program strategy appropriate? (Relevance - re.: policies, state of the art, ...)

- To which extent is the GC approach an appropriate tool to achieve the program goal (enable the production of more food with less water and energy)
- To which extent is the source-select-accelerate process appropriate to achieve the GC goal?
- To which extent are the eight strategic core elements appropriate to achieve the GC goal?
- What other value does the SWFF offer that other related funds do not?

A.3 To what extent have the interventions to date achieved the intended outcomes and impact (given the timeframe most likely based on outputs)? Are the interventions in the SWFF portfolio on track towards their intended outcomes? (Effectiveness / Impact) -

- To which extent have the interventions achieved their intended outputs to date?
- To which extent have the interventions achieved their intended outcomes to date?

- To which extent have the intervention contributed to envisaged (and not envisaged) impacts to date?
  (Specific impact related issues)
  - To what degree have innovations managed to increase demand? (impact)
  - To what degree can the innovations increase water efficiency/make water more accessible (impact)
  - What types of benefits have been most apparent (income, employment, water, other)?
  - To what degree does the SWFF program contribute to climate goals?

A.4 To what degree are the innovations likely to be sustainable by the organizations supporting the innovation? (Sustainability)

- To what extent have private funds been generated that contribute to the developmental objectives of the program? To what extent are the required local contributions in terms of investments by the entrepreneurs met?
- To what degree are financing/business models sustainable (and is further private financing mobilized?)
- To what degree is there demand and local ownership for the innovation?
- To what degree is ecological sustainability of interventions ensured and followed-up?

B. Targeting/selection

B.1 What types of enterprises are participating and with what kind of (financial) interests? What is the balance between public/social engagement and private/public engagement? Who (which organizations, from where, for what) is actually applying?

B.2 What is the quality of the targeting/selection process?

- Does SWFF provide good opportunities to source relevant innovations? (size of funding, outreach to applicants, selection of awardees, frequency of calls) -
- How appropriate and effective are the communication strategy and support activities for (potential) applicants? (Where have the calls been advertised?)
- Were the SWFF objectives well translated into the appraisal framework for applications?
- What is the quality of the selection process:
  • quality of first round selection (via graduates)
  • quality of round two selection process (via IIAC)
  • quality of round three selection process (via IIAC, including Skype discussions and final decision making by founding partners)
- What is the quality of the Pre Award Survey and what are its effects?

B.3 Does SWFF work with the most relevant partners to ensure an effective and efficient program?

- Do the innovators (partners) selected dispose of the necessary capacities to ensure an efficient and effective program?
- Does the portfolio of SWFF comprise of relevant projects as compared to other comparable instruments of USAID, SIDA and/or MFA-NL? What are notable differences; what are recommendations?

C. Focus on vulnerable groups and inclusiveness

C.1 Do the innovator consortium members have adequate knowledge of the local situation, livelihoods (m/f), envisaged benefits to the target group (m/f) and sustainability of these benefits? (Relevance)

C.2 To what degree are barriers in (local) institutional capacity and an enabling environment taken away?

C.3 To which extent do different groups (m/f; richer/vulnerable groups) benefit from the most apparent benefits of SWFF (income, employment, water, other)?

C.4 To what degree are barriers based on gender inequity removed or reduced?

3. PORTFOLIO SUPPORT

3.1 Is the right type of support provided to the innovators? To what extent is the Technical Assistance provided relevant to SWFF innovators?

3.2 To what extent is the TA Facility efficiently set up, organized and managed? What improvements have been made to the TAF offering as a result of working with the innovators?

3.3 How effective are the TAF interventions to the achievement of the programs intended outcomes and impact? Do TAF interventions effectively support the funded programs in meeting the objectives of the SWFF?

3.4 What is the quality of the SWFF M&E system:

- Does it provide relevant, measurable and appropriate data for the evaluation of sustainability, progress and impact? How are these effectively informing the SWFF objectives going forward?
- Were the SWFF objectives well translated into the M&E set up?
- What improvements have been made to the TAF M&E frameworks as a result of working with the innovators?

3.5 How effectively have investment risks been managed by the program? (number of failed projects, timeliness of reaction on problems observed etc.)

3.6 What improvements have been made to innovations and business models with support of SWFF, hence contributing to scaling innovations?

4. ORGANIZING THE SWFF - Are the administration, governance and oversight functions appropriately structured?

4.1 How appropriate and effective are the organizational structure of SWFF?

4.2 To what extent are adequate financial controls in place and are fiduciary risks well managed? (timeliness of disbursements, conditions to be fulfilled by the grantees for disbursement etc)

4.3 To what extent are the administrative costs for managing SWFF above, below, or on par with the cost of similar Challenge funds? (Special Consideration should be made for funds that provide technical assistance to their awardees.)

4.4 To what extent is the level of effort and resources spent by applicants/ awardees in balance with the added value SWFF brings? - To what extent are the SWFF results to date in balance with the level of effort and resources spent?

- What results have been achieved? (number of prototypes, products, business models realized…)
- What resources / effort have been spent per unit achieved?
- What has been achieved by similar programs? (benchmarking)
- How does this program compare?
- What caveats should be considered?
- Is resource allocation proportionate to the outcomes?

4.5 What is the quality of SWFF's governance and oversight?

- To what extent have governance arrangements permitted and facilitated the effective participation and voice of different stakeholders
- Is the governance structure transparent?
- How well do founding partners interact with SWFF and what are the recommendations for improving the effectiveness and efficiency of this interaction? Do they feel that their interests and objectives are represented in the program?

ANNEX 3: LIST OF INTERVIEWEES[47]

Dutch Ministry of Foreign Affairs

- **Aart Van Der Horst**
- **Job Klein,** DGIS
- **Karin Roelofs,** DGIS Inclusive Green Growth Department, Environment and Water Division
- **Marion van Schaik,** DGIS representative of Founding Partners
- **Pim Van Der Male,** Inclusive Green Growth Department (lead on Sustainable Water Fund)
- **Raimond Hafkenscheid,** former DGIS staff involved in initial preparation of SWFF

IIAC Members

- **Beverly McIntyre,** IIAC Member and Innovator Mentor
- **Frederik Claasen,** IIAC Member
- **Kevin Bishop,** Professor at Department of Earth Sciences, Program For Air, Water And Landscape Sciences; Environmental Analysis, Uppsala University and Uppsala Agriculture University, IIAC Sustainability Expert

Sida

- **Pia Lindström,** Programme Manager, desk officer for Securing Water for Food (SWFF)
- **Ola Möller,** Managing Director, unit of Agriculture and Food Security, initial officer for SWFF
- **Cecilia Brumér,** Programme Manager, former desk officer SWFF
- **Sara Öberg Höper,** former desk officer SWFF, currently on maternal leave
- **Frida Rodhe,** Programme Manager, desk officer for Powering Agriculture : An Energy Grand Challenge Programme

South Africa

- **Isayvani Naicker,** Chief Director: International Resources, Department of Science and Technology, South African director for SWFF

SWFF Awardees

- **Adaptive Symbiotic Technologies**: Zachary Gray
- **aQysta**: Pratap Thapa
- **Arcadis**: Petra Ross
- **Aybar** Engineering: Melesse Temesgen
- **Centre for Environment Concerns** – SWAR: Santal Gopal
- **Conservation South Africa – EcoRangers**: Sarah Frazee
- **CSDES M-Fodder**: Elvis Ouma
- [Driptech: the team was not able to contact a representative]
- **Future Water**: Jan van Til, Martijn de Klerk, Peter Droogers
- ***Green Heat Uganda****: Vianney Tumwesige, Gabriel Okello*
- **ICU Jordan**: Berardo da Boschio
- **ICU Peru**: Juan Arbulù Saavedra, Marielle Pisciotta, German Mori
- **ICU Tunisia**: Barbara Cosentino
- **Ignitia**: Lizzie Merrill, Andreas Vallgren, Cindy Laird, Inok Addo
- **International Center for Biosaline Agriculture**:
- **Islamic Relief Kenya**: Andrew Kipchirchir Chemoiywo, Eliud Wakabubi, Stephen Omware

[47] Some of the interviews were conducted via Skype or phone.

- **Meta-Meta – Saline Potato**: Simon Chevalking, Maqbool Akhtar, Martin van Beusekom
- **MIT-Jain**: Amor G. Winter
- **My Rain**: Steele Lorenz, Sri Lantha
- ***Practical Action Bangladesh****: A.K.M Muniruzzaman, Habibur Rahman, Hasin Jahan, M.Habibur Rahman, Nazmul Islam Chowdhury, Nirman Chandra Bepary*
- **Puralytics**: Tom Hawkins
- **Reel Gardening**: Claire Reid, Kate Gardner
- **Si Technologies**: Bart A.J. de Jonge
- **TAHMO**: Nick van de Giesen, Frank Annor, Kwame Duah, Representatives of Ghana Meteorological Institute and Accra Academy
- **UTEP**:
- **Wageningen University and Research**: Robert van Loo, Stacey Büscher-Brown
- ***Water Governance Institute****: Henry Mugisha Bazira*
- **Welthunghilfe**: Davlatbibi Imomberdieva, Romy Lehns
- ***World Hope International****: Khanjan Meta, Representatives of the Sierra Leone World Hope International team, Representatives of the following farmer groups and organizations: Looking Town, Mayalaw, Barefoot Women, Rugbery, University of Makeni, State University of Makeni*

Technical Advisory Facility – The Kaizen Company consortium

- **Cassy Rodriguez**, Junior Program Coordinator, Securing Water for Food (SWFF)
- **Donna Vincent Roa,** Chief of Party, Securing Water for Food Technical Assistance Facility
- **Kevan Hayes**, Acceleration Facilitator
- **Kevin Wheeler**, Managing Director, The Kaizen Company
- **Rami Khyami**, Grants and Financial Manager
- **Stephen Simon**, M&E Specialist, Securing Water for Food (SWFF) Technical Assistance Facility (TAF)

USAID

- **Alexis Bonnell,** Division Chief: Applied Innovation and Acceleration, U.S. Global Development Lab
- **Deirdre Jackson**, Contracting Agreement Officer
- **Grace Hoerner**, Global Innovation Lab (on secondment to USAID Uganda)
- **Lanakila (Ku) McMahan,** Team Lead, Securing Water for Food, Center for Development Innovation, U.S. Global Development Lab
- **Ryan Shelby**, Senior Energy Engineering Advisor Program Manager, SWFF
- **Seema Patel**, Chief of Innovation Design, Global Development Lab

Other Resource Persons (By email for resources and with questions, skype or face to face plus range of others in less formal capacity)

- **Allison Rosenberg**, Results for Development
- **Alyse Schrecongost**, Grand Challenges Canada
- **Dr Nicola Dee**, Cambridge Institute for Sustainability Leadership
- **Koen Overkamp**, Netherlands' Water Partnership
- **Louis Boorstein**, Osprey Foundation (formerly of Bill and Melinda Gates Foundation)
- **Paul Gunstenson,** Stone Family Foundation
- **Sjef Ernes,** Aqua for All
- **Zach Charat**, Bill and Melinda Gates Foundation