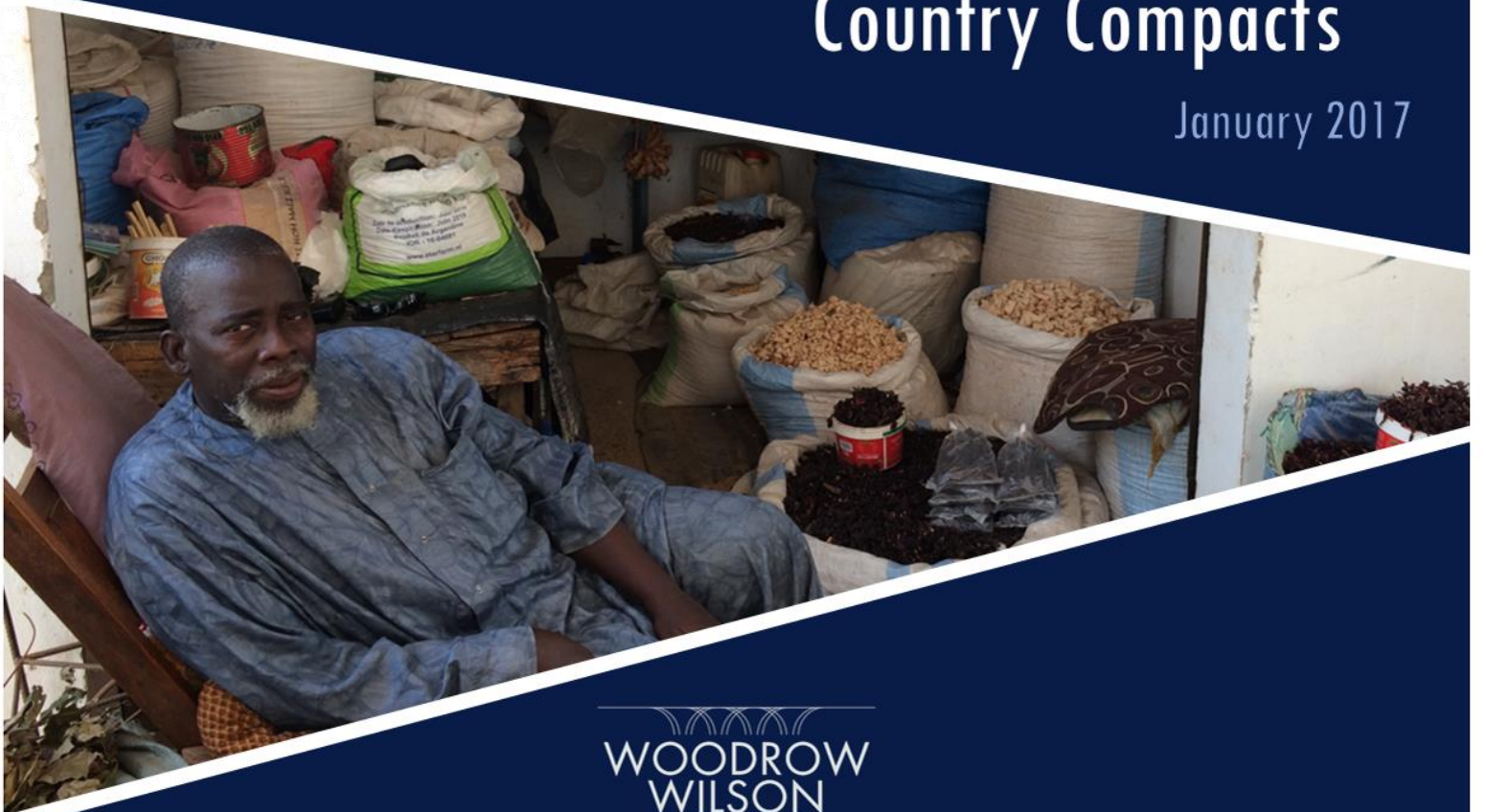




Ensuring the Long-Run
SUSTAINABILITY of MCC
Country Compacts

January 2017



WOODROW
WILSON
SCHOOL

of Public & International Affairs

PRINCETON UNIVERSITY

Ensuring the Long-Run Sustainability of MCC Country Compacts

*A Graduate Policy Workshop Report
from the Woodrow Wilson School of Public & International Affairs
at Princeton University*

January 2017

Nayha Arora

Eilyn Chong

Evan DeFilippis

Oscar Hernández

Aja Kennedy

Georgina Marín Espinosa

Tania Mathurin

Emily Ruskin

Ali Shehzad

Thomas Tasche

Ann Thompson

Table of Contents

Abbreviations	iii
Acknowledgments.....	iv
Introduction	1
Executive Summary	2
Overview of Senegal and Moldova	4
Defining Sustainability	10
Recommendation I: Formalizing Sustainability Action Plans.....	16
Recommendation II: Creating Post-Compact Sustainability Funds	27
Recommendation III: Establishing Partnerships with Other Donors	32
Ideas for Further Exploration	37
Bibliography	44

Abbreviations

ACSA	National Agency for Rural Development
ADF	African Development Foundation
AFD	French Development Agency
AfDB	African Development Bank
AFI	Access to Finance Initiative
AGEROUTE	Agence De Gestion Des Routes
CGD	Center for Global Development
CP	Conditions Precedent
EU	European Union
FERA	Fonds d'Entretien Routier Autonome du Sénégal
GAO	Government Accountability Office
IFI	International Financial Institution
JICA	Japan International Cooperation Agency
M&E	Monitoring and Evaluation
M&R	Maintenance and Rehabilitation
MCA	Millennium Challenge Account
MCC	Millennium Challenge Corporation
MiDA	Ghana's Millennium Challenge Account
MOU	Memorandum of Understanding
NSO	National Statistics Office
O&M	Operations and Maintenance
RN2	Senegalese National Road #2
RN6	Senegalese National Road #2
RRO	Road Rehabilitation Project
SAED	Société Nationale d'Aménagement et d'Exploitation des Terres du Delta du fleuve Sénégal et des vallées du fleuve
SDA	Sustainable Development Agency
THVA	Transition to High Value Agriculture
USAC	Monitoring Unit of Senegal Compact Activities
USAID	United States Agency for International Development
USDA	U.S. Department of Agriculture
WUA	Water User's Association
WWS	Woodrow Wilson School

Acknowledgments

This project would not have been possible without our fearless workshop leader, Prof. Ethan Kapstein. His direction was supported by the generous efforts of Gilbert Collins, Karen McGuinness, Sarah Goldman, and Joanne Krzywulak at Princeton's Woodrow Wilson School (WWS), who made our travel, interviews, and coursework possible. Our deepest thanks go to Laura Rudert and Fatema Sumar of the Millennium Challenge Corporation (MCC), whose pursuit of excellence in their work and constant guidance made this collaborative exercise possible. At the Washington, D.C. MCC office, we thank the following individuals for their expert advice: Craig Blackburn, Rebecca Goldsmith, James Mazarella, Sixto Aquino, Melissa Griswold, and Jonathan Bloom. Also in D.C., we thank Greg Adams, Larry Nowels, Justin Fugle, and Theresa Osborne. The Senegal team extends special thanks to Pape Diasse and Sidiky Diombana, who welcomed us and supported our trip with unparalleled hospitality. Team Moldova is particularly grateful to Mihail Ojog and Andrei Bat, along with the entire SDA team, who went to great lengths to ensure a meaningful and productive trip. Our gratitude extends also to Sarah Rose of the Center for Global Development (CGD) for her expert insight into MCC history.

Introduction

As part of the WWS Master in Public and International Affairs program, students undertake a consulting project for a public-sector client in lieu of a thesis component required by similar programs. This exercise in the core skills taught in the WWS curriculum seeks to bring fresh, innovative viewpoints to real issues in the public sector on a pro-bono basis. MCC, in partnership with the WWS Graduate Program Office and Prof. Ethan Kapstein, identified a real, pressing concern facing MCC to develop a research topic suitable to a 12-week semester. Eleven graduate students pursuing degrees in the International Development and Economics tracks of the WWS were selected through an application process to form a small consulting team. As a group, they bring decades of international experience in the public sector from diverse issue areas and institutions such as the European Bank for Reconstruction and Development, the Central Banks of Malaysia and Mexico, the Pakistani Civil Service, Innovations for Poverty Action, and the U.S. Peace Corps. The following report summarizes their findings.

The purpose of this report is to provide MCC with practical recommendations that can be incorporated early on into the design and implementation phases of MCC engagements to ensure that country partners and other international actors can sustain program benefits post-compact. The unique model of MCC's signature "compact" programs, which limits MCC's presence in recipient countries to a strict five-year window, is in many regards a source of strength for the organization, notably by minimizing the risk of aid dependency, but this business model also limits MCC's ability to measure and address the sustainability of projects post-compact. As such, early investments in the sustainability of MCC projects are essential if the five-year compacts are to achieve long-term economic growth and poverty reduction.

MCC makes a concerted effort to integrate sustainability into the core of its work, as evidenced by the continuous evolution of its approach to compact design and implementation, as well as broader, guiding documents such as the 2016 *NEXT* strategy, internal reviews and working groups on sustainability, and, indeed, the commission of this very project. The focus of this report is on the MCC compacts in Senegal and Moldova, and we should acknowledge from the outset that our conclusions are drawn primarily from on-the-ground experiences representing a very small sample size, and thus may not speak to the full universe of MCC's global portfolio of investments. These two compacts were selected by MCC as case studies for this workshop because of their similarities in targeted sectors (transportation and agriculture). Despite social, political and geographical differences, both countries carried out road and irrigation projects at similar moments in time. Throughout this report we identify similarities between the two cases in terms of project design and implementation as well as common concerns voiced to us about sustainability, and deploys these anecdotes to offer qualitative evidence that we hope can inform MCC's future work around sustainability.

Executive Summary

This report provides recommendations to MCC on ways to promote the sustainability of its compacts beyond their five-year life spans. The MCC compacts in Moldova and Senegal served as case studies to motivate the conclusions we reach in this report. Our workshop methodology included a review of academic literature on development, a desk review of MCC institutional documents and country-specific readings, in-country interviews and site visits in Moldova and Senegal, as well as a synthesis of our findings. We are mindful that our research strategy, restricted to a small sample size and relying on largely qualitative data, limits our ability to draw general conclusions across an institution with a global footprint as large and diverse as MCC. We nevertheless believe that the similarity in the structure and vintage of the two compacts under examination allows for meaningful lessons to be drawn from a comparison of the two, and that these lessons can profitably inform MCC's broader work to enhance the sustainability of its investments.

The Moldova Compact's two primary components were a road rehabilitation project (RRP) and a transition to high value agriculture (THVA) project. Interviewees at all levels of involvement reported widespread satisfaction with both projects. Based on these conversations, we anticipate that threats to sustainability in Moldova will stem from national budget shortfalls and the limited capacity of state agencies. The Senegal Compact also focused on road rehabilitation and agriculture, though the irrigation project in Senegal centered more directly on rice production. Feedback gathered through interviews on the design and implementation of MCC projects in Senegal was resoundingly positive. As is often the case in development projects, however, concerns were raised over the long-term budget support and state capacity to maintain the physical infrastructure. Throughout this report, we turn to anecdotes drawn from these two cases to illustrate our conclusions and motivate our recommendations.

We begin by defining a project to be **sustainable** insofar as it remains **operational** – with proper technical and managerial capacity, and optimal physical maintenance; **institutionally resilient** from internal and external shocks, both political and physical; **continuously used** by final beneficiaries; and **persistently beneficial**. We identify an additional pillar of sustainability in a project's readiness for assessment through **accessible measurement**. This definition prizes five dimensions of sustainability gleaned from our compact-specific field work, and tailored the unique nature of MCC's grant portfolio comprising predominantly investments in the transport, agriculture, and energy sectors.

Flowing from this definition, we offer the following recommendations to bolster the sustainability of MCC compacts:

- 1. MCC should formalize the creation of Sustainability Action Plans early in the compact life cycle.** Recognizing the difficulties of writing actionable plans capable of responding to an evolving political and economic context, a more structured approach to sustainability planning would offer a

forward-looking analysis of sustainability challenges and goals, identified through a survey of relevant actors, institutions, and resources. The plans would conclude with a scenario analysis which proposes responses to future situations which could imperil sustainability. We find that MCC actively addresses dimensions of sustainability throughout its body of project documentation, but lacks a central document dedicated exclusively to treatment of sustainability. Standardizing the creation of these plans would encourage the MCAs to engage with stakeholder agencies and focus attention on risks to sustainability early in the project life cycle. Ultimately, the plans would provide a “one-stop,” project-specific document with a definition and assessment of sustainability in the host country, as well as commitments and priorities by actor to achieve sustainability.

- 2. MCC should establish post-compact sustainability funds to finance sustainability-related investments.** The unique restrictions on disbursing funds after the conclusion of a compact, however, leave MCC largely powerless to address post-compact decay and other threats to sustainability. To fill this gap, we suggest MCC leverage host-country contributions to establish a “*post-compact sustainability fund*” through a two-stage commitment process. In the first stage, the host country would make regular contributions to the fund during the life of the compact. The second stage involves ensuring that the accumulated funds are spent on the sustainability of MCC projects post-compact through administration by USG agencies, other donors, or the host country itself. Although these options involve legal and practical challenges unique to the context of each partner country, the proposal would safeguard critical funding to complement at times unreliable host country resources necessary to sustain project benefits.
- 3. MCC should consolidate and streamline efforts to formalize strategic partnerships with other development actors to help bridge the compact close-out transition.** MCC addresses donor coordination broadly in compact agreements, but more formalized coordination with other development actors, and the adoption of joint frameworks to streamline such partnerships, could help smooth the post-compact transition phase where threats to sustainability are most likely to materialize.

We conclude our recommendations with a brief chapter discussing more fundamental changes to the MCC’s business model – and the structure of the MCAs in particular – that we believe address key sustainability risks. Once a compact has ended, MCAs are usually dissolved except in the rare event that a host government decides to maintain one. The Moldova case shows us that preserving an MCA beyond compact closeout can increase the chances that projects will be maintained. Finding funding to sustain an MCA beyond the length of the compact is a critical concern, but could be addressed if compacts build in a revolving fund that can support the MCAs financially.

Finally, we would like to note that these recommendations have been crafted in a way that each should stand on its own, independent of the others, as alternative strategies that MCC can adopt to complement existing efforts to promote sustainability. Taken collectively, however, these recommendations also constitute mutually reinforcing components of a strategy to enhance compact sustainability.

Overview of Senegal and Moldova

This section serves as background to the report's analysis and recommendations. It summarizes key components of Moldova and Senegal's respective compacts, briefly describes the distinct context of the two countries, and highlights key points from our discussions in the field.

Table 1: Compacts at a glance

	Moldova	Senegal
Entry into force	September 1, 2010	September 23, 2010
Approved grant total	\$262 million	\$540 million
Grant expended	\$259,371,697 (~100%)	\$433,318,473 (~80%)
Income status	Low-Middle Income Country (LMIC)	Low-Income Country (LIC)
Key constraints to growth	Poor-quality roads; a lack of reliable water; lack of financing; lack of access to markets and technologies; and lack of know-how	Poor private investment climate; infrastructure deficits (transportation, water and energy); regulatory framework bottlenecks
Compact components	1) Road Rehabilitation; 2) Irrigation and Water Resource Management	1) Road Rehabilitation; 2) Irrigation and Water Resource Management
Compact sub-components	<ul style="list-style-type: none"> • Term financing and technical assistance to farmers • Market development support for improved access to high value agriculture markets • Promotion of sustainable agricultural practices 	<ul style="list-style-type: none"> • Land tenure security • Environmental and social mitigation measures related to road rehabilitation (including but not limited to environmental awareness, reforestation, family resettlement, and weekly market programs)
Sustainability Measures	<ul style="list-style-type: none"> • Conditions precedents, including passage of a WUA Law to support legal transfer of government assets to WUAs • Training for local service providers • Loan Revolving Fund 	Conditions precedents (including but not limited to, full funding of road maintenance agency FERA, fee-based structure for irrigation systems)

	Moldova	Senegal
	<ul style="list-style-type: none"> Amendment of the Road Fund Law to ensure adequate revenue from the fuel excise tax goes toward maintenance 	
Second compact	No	In discussion
Independent Post-compact Entity	Sustainable Development Account (SDA): A public agency funded through 2017 to assist WUAs and facilitate access to funding through the Loan Revolving Fund. Consists of a steering committee of seven, an executive committee of three, and a management team of six.	USAC – agency of eight staff focused on monitoring and ex-post evaluation of MCC projects funded by government of Senegal through 2020

The Senegal Compact and Field Visit

Senegal is a mid-sized, low-income country in western Africa. It has been widely recognized for its stable democracy since decolonization in 1960, most visible in its peaceful transitions of power and relatively low corruption. MCC and the government of Senegal identified a poor private investment climate, impaired by a weak regulatory framework, and outdated infrastructure as the major impediments to economic growth in Senegal. MCC’s five-year, \$540 million dollar compact in Senegal entered into force on September 23, 2010.

The “Constraints Analysis on economic growth and private sector development” conducted in 2008 by the Senegalese government highlighted transportation, irrigation, and energy infrastructure deficits as major barriers to economic growth in Senegal. In response to this diagnosis, the MCC compact ultimately focused on road



rehabilitation and irrigation infrastructure, aiming to improve agricultural productivity and mobility of economic activity. By compact closure in 2015, 256 kilometers of critical corridor highway had been rehabilitated, irrigation for 56,000 hectares of agricultural land had been constructed or rehabilitated, and access to land rights had been improved for thousands of people. Jointly, the programs are estimated to have reached 1.55 million people throughout Senegal. Following compact closure, continued monitoring and ex-post evaluation of MCC projects in Senegal have transitioned to the Monitoring Unit of Senegal Compact Activities, Post-compact Entity (USAC), whose activities are funded by the Government of Senegal, which is projected to operate through 2020.

A team of five WWS graduate consultants visited Senegal to conduct interviews and field visits from October 29 through November 5, 2016. Two team members met with Government of Senegal, U.S. Government, and multilateral and bilateral organizations in Dakar, as well as civil society actors and academics. Three team members visited the field, where they observed MCC project sites in the Senegal River Delta in northern Senegal (St. Louis, Ndioum, Ngalenka), Tambacounda in central Senegal, and southern Senegal (Kolda, Tanaff, and Ziguinchor). The field team also visited MCC-funded highways in Ndioum, Kolda, Tanaff, and Ziguinchor. The visit was supported by USAC, the eight-person body created by the Government of Senegal to continue project monitoring post-compact.

The team was struck by the consistently positive feedback from government partners and other aid agencies regarding MCC's activities in Senegal. While the prospect of Senegal's second compact was common knowledge in our discussions, we do not feel this compromised response quality; information provided by third parties with no connection to MCC corroborated positive reviews. Even actors who are typically critical of international aid admired the MCC model, with qualified reservations about the consultation process and implementation. Third-party reservations primarily spoke to dissatisfaction with inadequate consultation of non-government actors throughout the compact life cycle. All interviewees, especially international actors, cited project sustainability as a major challenge to their work in Senegal across sectors, primarily due to insufficient funding and staffing in the public sector. Most mentioned a sincere interest on the part of the Senegalese government to partner on development projects, but that limited capacity and funding in the public sector posed a particular challenge to such partnership.

MCC-funded road rehabilitation along the National Road #2 (Route Nationale 2 ~ RN2) was praised in every interview for significantly reducing travel time to northern Senegal. Rehabilitation has also allowed the U.S. Department of Agriculture (USDA) to fund small feeder roads throughout the north to better connect remote communities to major thoroughfares. Sustainability of resurfaced roads will be highly dependent on a few key factors. Notably, RN2 forms a part of the international trade corridor with Mali and Mauritania, which ultimately connects to Western Europe through Morocco and Spain. Despite axle-load policies and weigh stations in place along the road, anecdotal reports indicate that weight restrictions are not enforced due to petty corruption. Constant weight loads exceeding the figures used to plan road rehabilitation are certain to

degrade the road at much faster rates than anticipated. Additionally, while the Government of Senegal established a body to fund road maintenance in 2007 [Fonds d'Entretien Routier Autonome du Sénégal (FERA)], the MCC compact in Senegal incorporated as a condition precedent (CP) a requirement to ensure funding for the fund, which had suffered serial shortfalls since its creation.

National Road #6 (Route Nationale 6 ~ RN6), the stretch of highway planned for rehabilitation in southern Senegal, was not completed at the time of field visits. RN6 delays and incompletion were primary factors for the compact not being fully dispersed. Because conditions were not met, responsibility for funding and completion of the RN6 project transferred to the government of Senegal. Accounts as to what truly delayed completion of the project within the compact timeline varied widely across our interviews. One point of consistency centered on the fact that the outside contractor responsible for completing RN6 won multiple bids simultaneously, and was perhaps unprepared for the scale of work necessary in a country where it had little experience. Interviews also suggested that staff changes within MCC Senegal and irregularities in the partnership with Agence De Gestion Des Routes (AGERROUTE), Senegal's road management agency, compounded delays.

The quality of MCC irrigation project infrastructure and implementation was also widely praised for its thorough planning and foresight. The 20-year funding simulation MCC undertook with its implementing partner¹ to anticipate the range of risks to irrigation systems and their associated repair costs was cited as especially innovative and beneficial. MCC assisted SAED in creating and implementing an action plan with the Government of Senegal, as well as extending program budget horizons from less than one year to two years, which will facilitate long-term investment planning. Both changes are felt to be major improvements to agricultural support systems in Senegal. The novelty of the two-year funding schedule leaves untested SAED's ability to fund canal or equipment repairs if for any reason farmers and farmer associations are collectively unable to meet membership dues (e.g. in times of wide economic hardship, such as drought, poor crop yields, etc.). Especially salient are concerns that rice sales must yield high prices for interest payments to be met and cooperatives to be properly funded. In the current rice market, this may be difficult.

Human resources may also be a challenge to sustaining MCC-funded irrigation systems. During the compact, ten staff were trained in pump and canal maintenance by an international engineering consultant who made routine visits to the project sited during the compact period. If the trained staff are unable or unwilling to do repairs or maintenance, however, SAED may face difficulties finding technicians with the necessary skill set within Senegal.

¹ The implementing agency for the irrigation projects in the Senegal River Basin is the Société Nationale d'Aménagement et d'Exploitation des Terres du Delta du fleuve Sénégal et des vallées du fleuve (SAED).

The Moldova Compact and Field Visit

MCC's five-year Moldova compact totaled nearly \$260 million and entered into force on September 1, 2010, following partial implementation of a threshold program aimed at reducing corruption. The compact included both a RRP and a THVA component. The road project succeeded in rehabilitating 93 kilometers of roads, a goal intended to lower trade costs and thereby increase rural incomes. The agriculture project entailed repairing 10 Soviet-era irrigation systems and establishing water user associations (WUAs) to manage and operate the systems, which together aimed to increase productivity in high value agriculture. Upon completion of the compact, Moldova's MCA transitioned into a SDA to oversee the completion of the THVA project. SDA operations are currently funded through December 2017.

Moldova is a small, landlocked state situated between countries of the former Soviet Union and the European Union. Its economy is the poorest in Europe, vulnerable to political instability and corruption. Following the Soviet Union's collapse, Moldova lost its status as a key exporter of HVA, and its irrigation systems fell into disrepair. Moldova ranks only behind Syria and the Cook Islands as the country with the greatest population decline, a trend that carries significant implications for sustainability. Its key constraints to growth, as identified by MCC and Moldova's MCA, are poor-quality roads, a lack of reliable water, lack of financing, lack of access to markets and technologies, and lack of know-how.

The SDA hosted a team of four WWS graduate consultants in Moldova for interviews and site visits in November 2016. The SDA, financed by loan-revolving funds, proved to be an essential institution, without which the success and sustainability of the THVA project, in particular, would be limited. SDA employees emphasized the challenges of operating in a corrupt political and legal environment, but appreciated their relative insulation from government interference. With only a small full-time staff, the SDA also struggles to fulfill all duties expected of it.

MCC's road project has received widespread approval, but some key challenges to sustainability are worth noting. First, the state agency tasked with maintaining roads, the State Road Administration (SRA), was severely underfunded in 2016 due to unanticipated changes to the national budget. In this environment of uncertainty and perpetual financial shortfalls, only limited road maintenance is possible, falling short of the more intensive repair work required to the Soviet-era network. Second, the MCA diverted some high-demand human resources away from the SRA, impairing the agency's function for several years. Minor complaints, such as bus stop vandalism and the inability of certain mayoral districts to pay for lights, were also noted. Nevertheless, the RRP has prompted the SRA to explore possible extensions to its road network, and the MCC road appears built to last, with few major repairs anticipated.

The THVA project poses more sustainability challenges. First, most of the irrigation systems have not been tested since compact closure due to high levels of rainfall, and

some WUA members are consequently doubting the systems' utility and declining to pay membership fees. Relatedly, as contractors' defect liability periods come to an end, WUAs will be unable to receive free, warranted support for any defects that arise when the system is used. Second, it is inefficient for small-scale farmers to irrigate on their own, creating problems when neighbors opt not to irrigate. Third, uptake of HVA, which many farmers view as untested, has been slow. Fourth, while the THVA project created WUAs and repaired irrigation systems, it had insufficient time and funds to establish collection points for packaging and distribution, which would significantly enhance farmers' productivity. Fifth, the project has done little to keep young people from leaving their families' land in Moldova, creating concerns about a lack of future capacity to operate the WUAs' technology and undertake system repairs, let alone irrigate the land itself. Finally, Apele Moldovei, a state agency charged with managing Moldova's irrigation systems while the WUAs are being established, reportedly has low capacity. Despite these hurdles, local WUA leaders and organizations like the National Agency for Rural Development (ACSA) are acting innovatively to make the system work-- by, for instance, combining WUA districts to share equipment and expertise-- engendering optimism about THVA's sustainability.



Defining Sustainability

This section establishes an analytical framework to judge the sustainability of MCC country compacts. Our objective is to offer a definition tailored to the structure of MCC's unique results-driven and country-led model. As we argue, MCC's unique approach to aid – in many respects a source of strength and operational clarity – may also make sustainability a particular challenge in the design, implementation, and monitoring of compacts. First, we explore the way MCC has dealt with sustainability issues in the past, including recent efforts to improve the design and implementation of projects to achieve sustainable results. We then examine the pillars that make the particular programs and projects within a compact sustainable.

MCC's Experience with Sustainability

MCC has been thinking about questions of sustainability since its inception. Indeed, one of the key features that distinguishes MCC from other development actors is its focused legal mandate to fund country-led solutions to achieve poverty reduction through sustainable economic growth. A second key element that distinguishes the MCC from other donor agencies is the limited timeframe of its country compacts, which are required by Congress to disburse all implementation-related resources within a strict five-year window. MCC's limited window of operations makes funding predictable over the course of a compact, and also creates incentives to implement programs in a timely manner. Together, these elements make MCC distinct from other U.S. aid organizations, which often have multiple competing objectives and longstanding operations in partner countries (Tarnoff, 2016).

MCC's mandate is embedded in its results framework through a commitment to use technically rigorous and transparent methods to project, track, and evaluate the impacts of its compacts in terms of increased incomes of program beneficiaries (MCC, 2011). MCC's approach to results has been recognized to be uniquely innovative in imposing an economic logic and quantitative rigor on every program it funds from inception to completion (CGD, 2015). The results framework comprises four elements that make the commitment to results systematic: (1) a *constraints analysis* preceding compact design to identify the key constraints to economic growth; (2) a *cost-benefit analysis* to identify cost-effective, growth-focused projects; (3) a *monitoring and evaluation (M&E) plan* linking project parameters to measurable and robust indicators; and the use, to the greatest extent possible, of *impact evaluations* to determine the extent of the actual impact of the funded projects.

Similarly, the principle of country ownership is at the heart of the MCC model: the constraint analysis is done in consultation with the host government, MCAs are composed largely of public servants originally embedded within the host government, and host country recipients take the lead in setting priorities for compact investments.

The additional inclusion of civil society groups and private sector actors in MCA boards also contributes to a broad-based sense of ownership extending beyond just the government.

While MCC has at times encountered problems effectively incorporating sustainability into project design and implementation, it has actively taken actions to improve it. For example, a 2011 report by the Government Accountability Office examining the Compacts in Cape Verde and Honduras (the first compacts completed by MCC) found that the long-term sustainability of the compacts presented challenges due to lack of funding for maintenance of infrastructure projects (GAO, 2011, p. 25). While MCC conditioned the compacts on specific actions by the host government to minimize these risks before implementation, some of these conditions were only partially met. However, as highlighted by MCC, the implementation of the programs was in fact accompanied by the establishment of road maintenance funds financed by the host governments. Furthermore, MCC has consistently sought to establish endogenous funding sources whenever possible. While challenges remained, the principle of country ownership means that host governments retain responsibility for facing such challenges on their own.

In line with these efforts, MCC also reworked the compact design phase to extend the timeframe to include greater emphasis on thorough project preparation.

In 2012, MCC conducted an Operations Review that examined its experience in planning and addressing sustainability in its compacts. One of the report's key findings was the absence of "a consistent definition or approach to sustainability, which has made it difficult to ensure that sustainability is being incorporated into compacts" (MCC 2012, p. 3). The report went on to propose recommendations including the development of a framework for sustainability in compact development and implementation, the inclusion of sustainability and contingency plans in compact approval documents, the establishment of methods to monitor and audit for sustainability, and to increase capacity within both the MCC and MCAs to evaluate and assess project sustainability. In the course of our research, document review, and fieldwork – which resonates with the findings of this earlier report – we observed the steps MCC has taken to move forward in implementing many of these recommendations. Building on these efforts, we offer below a working definition of sustainability both in an effort to help establish a consistent overarching framework to assess compact sustainability and as a preface to the recommendations that follow.

Five Pillars of Sustainability in MCC Projects

Consistent with MCC's mandate, this report defines sustainability **in terms of the long-term² persistence of the *outcomes*** of economic growth and poverty

² When speaking about sustainability at the level of MCC's mandate, the time horizon of "long-term outcomes" is loosely defined to include all potential effects flowing from the process of compact design and implementation – including not only increased income-generating capacity but also the benefits from policy reforms triggered by a CP. At the project level, "long run" is best defined by the time horizon originally used to calculate the economic rate of return of the program (typically 20 years).

reduction generated by compact investments, rather than simply the maintenance of specific programs or projects (Ostrom, 2002). At the project level, sustainability does often translate into the capacity of programs and projects to endure. Indeed, a crucial element of MCC's engagement with recipient countries is the execution of projects with measurable results in a manner consistent with MCC's strict time restrictions. Since projects are primarily selected to maximize their economic rate of return over a longer time horizon (typically 20 years), the primary expectation of sustainability is for projects to achieve these returns. In this sense, defining project sustainability is equivalent to determining the factors that allow expected returns to materialize in the long-run. At the same time, the definition must be flexible enough to account for the heterogeneity of MCC's projects.

We define a project or program to be sustainable insofar as it remains **operational** – with proper technical and managerial capacity, and optimal physical maintenance; **institutionally resilient** from internal and external shocks; **continuously used**; and **persistently beneficial**. An additional pillar related to sustainability is that the project can be readily assessed along the above dimensions through **accessible measurement**.

This definition prizes five dimensions of sustainability that we identified in our review of projects, and takes into account the profile of MCC's portfolio of investments (28 percent of MCC's cumulative compact funding was in the transport sector, 16 percent on targeted agriculture, and 14 percent to energy projects) (Tarnoff, 2016). While the mainstream notion of sustainability in terms of environmental consequences does not feature explicitly in our definition, our focus on the project's benefits (or outcomes) includes the routine analysis of the environmental impacts that may be associated with MCC programs.

Table 2: Pillars of sustainability

Dimension	Key Question(s)
Operability	Does the recipient country have the technical capacity to operate and maintain the programs? Is the budget allocated consistent with the life cycle of the project?
Institutional Resilience	Have the risks associated with the durability of the project been identified? Are there provisions to mitigate these risks?
Usage	Are projects and programs being continuously used? Does the level of service provision meet the demands of final beneficiaries?
Benefits	Do projects and programs continue to produce the expected benefits? Do those benefits exceed the costs of maintenance and the environmental costs of the projects?
Measurability	Are the outputs of the programs and projects measured? Are the sustainability of outputs being operationalized and measured?

1. Operational Maintenance

Across recipient countries and donors, failure to provide for operational maintenance have undermined the effectiveness of foreign aid. Some scholars argue that this problem can be traced back to an emphasis on observable outputs (e.g. new roads, schools, and hospitals), at the expense of funding for less visible operating supplies and maintenance works (Easterly, 2002). Perversely, spending on items that keep a project operational often generates higher returns than investing in new projects (e.g. Filmer & Pritchett, 1997). Yet, for donors who see maintenance as a responsibility of the recipient countries these kinds of investments remain unattractive. This is more so the case in relation to obtaining the technical capacity to operate and maintain investments. At the same time, funding for operating budget in foreign aid projects raises a classic example of the Samaritan's dilemma: if donors provide funding, the local governments will never engage in efforts to maintain the projects (including the building the necessary technical capacity), nurturing a dependency on foreign aid. However, in the presence of real budgetary constraints to fund maintenance, the absence of external support can compromise sustainability.

As mentioned above, MCC's model includes provisions to foster the long-run maintenance of projects. In the two cases analyzed in this report, CPs were established to increase the funds available for maintenance of roads in Moldova and Senegal. Similarly, the WUAs in Moldova created user fees designed to, among other things, maintain the irrigation systems.

From the perspective of the agencies within recipient countries that are responsible for maintaining externally-funded projects, another set of incentives could also jeopardize reliable funding for operating expenses. On a basic level, maintaining programs and projects, particularly infrastructure projects, may suffer from time-inconsistency problems: while investing in regular maintenance maximizes the net present value, such benefits will only show over the long run. On the other hand, critical repairs, or "break-down" maintenance, generate salient and immediate results as well as political dividends. As such, there are incentives to allocate resources only to the second type of repairs, leading to higher costs with fewer benefits.

In drafting recommendations to enhance operational maintenance we thus look for a way of countering these perverse incentives by taking into account the particularities of MCC's model, especially the five-year rule, as well as legal instruments to secure commitments from recipient countries for future resources related to maintenance.

2. Institutional Resilience

A long-standing debate in development literature centers on the relation between states and markets – in particular, whether free markets create effective governing institutions, or whether effective institutions need to be established for economic growth to occur. In MCC's model, this debate is partially resolved through the country selection process: while not infallible, the criteria used to assess countries and the deliberations of MCC's

board increase the probability of choosing countries with a degree of institutional development sufficient to secure basic property rights and the rule of law. Nevertheless, low-income and lower middle-income countries are *particularly* prone to economic, political, and social volatility, raising the likelihood of external shocks and internally destructive behaviors that threaten the sustainability of programs and projects.

A project's institutional resilience is thus the degree to which it possesses a built-in capacity to be conserved, scaled-up, and withstand external shocks. In this sense, the design and implementation of programs needs to go hand in hand with institutional consolidation: we treat effective institutions as being the outcome of the development process itself – instead of a necessary condition for it to occur (Levy, 2014). In this sense, institutional and economic development mutually reinforce one another in a virtuous cycle.

3. Usage

A continuous demand for the products and services offered by the projects funded by MCC compacts is a central requirement for sustainability. Indeed, during our fieldwork and interviews, our interlocutors consistently identified the risks associated with offering services or building projects with lower than expected levels of utilization. These risks abound in development projects generally, and are a persistent threat faced by governments across the globe in the provision of public goods. In particular, investments in road infrastructure are subject to severe under- and over-estimation of eventual usage, with margins of up to 20 percent between forecasted and actual traffic (Flyvbjerg et al, 2005).

In our sustainability framework, ensuring continued usage of projects closely relates to the notion of *ownership* presented above: projects for which there is strong demand from final beneficiaries are more likely to see sustained use once completed. This notion also comports with the ability to involve different stakeholders in the process of project design and implementation, with the aim of avoiding social and behavioral conflicts precluding usage and maintenance of the program (MCC, 2012).

4. Benefits

The most important element of sustainability is that the project continues to produce the increases in welfare for program beneficiaries that motivated it in the first place. While these benefits are directly reflected in the outputs of the program, they should also take into account the changes in the operating costs of the program (through ongoing cost-benefit analysis), as well as the full environmental and social impact the program may have in terms of its implications for natural resources and local populations.³

³ In this sense, the mainstream notion of sustainability in terms of environmental impact should be included from the outset and throughout a comprehensive analysis of a project's costs benefits.

5. Measurability

Finally, sustainability needs to be measurable. On a primary level, projects must be selected and designed to have clear outputs linked to MCC's outcomes of interest – i.e. household income and poverty reduction. Setting targets with key performance indicators is particularly useful when the outputs of interests are observable, such as when building infrastructure projects. However, there is evidence that for projects with non-tractable goals in volatile political environments, like those aimed at improving governance in developing countries, measuring the effort of implementing agencies in terms of measurable outputs (e.g., meetings, frameworks, etc.) excludes “soft information” that is critical for making optimal decisions (Honig, 2016). In this sense, metrics for sustainability must also allow for autonomy of the implementing partners.



Beyond having a clear theory of change and a proper evaluation design, projects must also build local capacity to account for each of the dimensions mentioned above. Once a program has been handed over to local stakeholders, government entities and civil society groups need to have a reliable flow of information to judge if projects should be reformed, and whether changes in the structure of costs over time permit its continuation.

Building local capacity for monitoring and evaluation will further help MCC to gather information on compact investments once it has exited a country. Today, information about investments after compact closure is, at best, limited to the end point specified in impact evaluations, typically five to seven years after the compact ends (Sturdy et al., 2014). Establishing better M&E systems will generate reliable data by the host governments. Furthermore, MCC can work with the host governments during compact implementation to make this information public.

While this framework is useful in navigating the question of sustainability broadly, it is necessary for MCC to tailor this framework to the idiosyncrasies of a particular compact. A useful exercise to this end is to formally delineate what success and failure regarding compact sustainability looks like. Clear criteria outlining the necessary conditions for a project to be considered “sustained” should be established in order to clarify sustainability goals from the outset.

Recommendation I: Formalizing Sustainability Action Plans

MCC should formalize the development of sustainability “action plans” that all MCAs must publish

The surest way to promote the sustainability of MCC-funded projects is for partner countries to engage in careful, systematic analysis of the risks to a project’s sustainability early in project development and develop a risk mitigation strategy on the basis of that analysis. MCC and the MCA currently describe some dimensions of sustainability across a variety of project documents, but there is no consistent format that constructs an organized, cohesive approach to sustainability throughout the project life cycle. Recognizing the difficulties of writing actionable plans that are relevant in the context of a changing political and economic environment, MCC should require each MCA to create and own a consistent Sustainability Action Plan (“Plan”) that details the constituent elements of project sustainability both during and after the compact period, including the key actors, activities, and resources involved. The completion of the Plan should be a CP for the disbursement of funding. Upon completion, the Plan would clearly identify key parties who will be held accountable for specific responsibilities. The final document should be transparent and publicly available to beneficiaries and others involved, including on the MCC website.

The Plan would put in place the building blocks for project sustainability during the compact period, and this foundation will remain after the MCC leaves the country. The process of forming the Plan will allow the MCA, MCC, and other stakeholders to develop a shared understanding of a project-specific definition of sustainability and the capacity and resources needed to secure this vision. The Plan would also contain concrete steps that will be taken during the compact period to lay the foundation for project sustainability after the MCC leaves. While most sustainability activities will occur after the compact period ends, the Plan would outline sustainability processes and assign responsibilities to specific actors while the MCC and MCA are still present and available to provide support and oversight. After the compact period ends and the plan is no longer enforceable, it will have achieved its goal of paving a path to sustainability. If MCC engages with another agency that will remain in the country after the compact period and take ownership over the project (see discussion in later recommendations), the Plan could provide a guideline of the role the country and its respective agencies should have in contributing to sustainability.

The Current Unstructured Approach to Sustainability Planning

MCC addresses and creates plans to secure project sustainability in various documents, including the Compact, Program Closure Plans, and M&E Plans. The fragmented and unstructured approach that MCC takes to sustainability planning at present, however, does not engage with the full range of challenges, resources, and elements of sustainability, nor is it sufficiently forward-thinking. Below we trace the process of sustainability planning in MCC's engagement in Senegal to illustrate the gaps in the current approach:

MCC's Sustainability Planning in the Senegal Compact

The compact document: Senegal's Compact mentions sustainability in Annex I, Parts B(I)(e) and (II)(e), as part of the project descriptions. These sections discuss the prospects for sustainability of both projects. In the case of the roads rehabilitation project, the compact notes the Independent Agency for Road Transportation's technical capacity to carry out road development and maintenance (supported in the analysis performed in the Constraint Analysis). The compact, due to its nature as an international treaty, does not contain further analysis of the strengths, weaknesses, longevity and responsibilities of the organization. Funding shortfalls in the Road Fund are also mentioned, along with a discussion of progress measures created in the program implementation agreement as CPs to the disbursement of funds. The Compact does not further address causes, consequences, or solutions to this sustainability threat. Similarly, for the Irrigation and Water Resources Management Project, the Compact states that SAED, the agency maintaining the irrigation systems, has "considerable human resources, technical capacity and experience" due to its role in implementing other donor-sponsored programs. The compact proposes the development of an Irrigation Maintenance Action Plan in which the government commits to take specific steps to enhance collection of water user fees.

The M&E Plan: In the M&E Plan, MCC can identify indicators relevant to sustainability and track them so MCC and other implementing agencies can be alerted of potential risks to sustainability across the project life cycle. The metrics tracked under Senegal's M&E Plan do not fully take advantage of this opportunity to uncover and address sustainability risks before the Compact ends. For example, the M&E Plan includes the following indicators for the Irrigation and Water Resource Management Project: the number of stakeholders trained, conflicts successfully mediated, and management committees created, trained and fully operationalized. These indicators can help demonstrate the progress of the project, but do not necessarily track movement towards sustainability. For example, while the number of stakeholders trained is tracked, the creation of manuals or procedures for knowledge transfer in agencies involved in operations and maintenance (O&M) is not specifically tracked. This type of indicator can help identify flaws in the project approach that have direct implications for sustainability. Since this indicator can be tracked over the course of the compact period, it should be part of the M&E Plan. If such sustainability measures are

relegated to the impact evaluation, which takes place after the compact period, it will not be possible to correct this problem while MCC is still in the country and able to influence project activities.

The Program Closure Plan: Sustainability is also addressed in the MCA-drafted Program Closure Plan, which is submitted no later than 15 months prior to the Compact end date. The Program Closure Plan includes an assessment of project “sustainability and completion risks,” along with a plan for monitoring the risks “during the last year of the Compact and the closure period.” Senegal’s Program Closure Plan notes that individuals involved in irrigation maintenance activities must be continuously trained by local agencies and ministries as this personnel changes due to elections or regular turnover. This sustainability risk was identified and discussed throughout the project, but it is unclear from the project documents what actions were taken and responsibilities designated in writing to mitigate this ongoing sustainability risk.

These piecemeal accommodations for sustainability would benefit from more holistic and comprehensive treatment. By addressing sustainability challenges in different documents and at different stages of engagement, the shared characteristics, and potential solutions for project challenges may be overlooked. Waiting to assess and measure sustainability risks until after the Program Closure Plan is written forecloses proactive and preemptive risk mitigation. Finally, incomplete or only sporadic tracking of sustainability indicators during the Compact period will fail to produce a rich picture of progress towards and challenges in project sustainability. These weaknesses in the current approach to sustainability can be corrected for in the Plan we outline below.

The Creation of the Sustainability Action Plan

The Plan should be developed before the first disbursement of funding for project construction. At this point, MCC and the MCA have substantial information about the project and the context in which it will take place, and feasibility studies have been completed. The Plan should be completed early enough in the project life cycle to influence the construction and completion of the project. Early completion of the Plan enables a full range of sustainability challenges and goals to be considered holistically, from the initial period of program implementation through closeout and post-compact periods. The Plan can thus be approached with a forward-looking mindset towards sustainability. The Plan should also be updated as needed throughout the compact to incorporate newly identified risks or needs.

The Plan should be developed and owned by the MCA, as it is the central implementing and accountable body within the partner country. While generating the Plan, the MCA should actively engage with relevant government ministries and institutions involved in the Plan’s activities, in particular those charged with responsibility for specific sustainability-related actions. Individual agencies’ responsibilities under the Plan can be

reinforced through inclusion in the implementing entity agreements. If possible and relevant, civil society groups, beneficiaries, and donors can be consulted about the feasibility of the Plan as well as potential contributions they may make to it. The MCA can solicit detailed information and data from relevant agencies to produce a comprehensive, accurate, and practical Plan. By engaging with these agencies and actors in this manner early in the project life cycle, the MCA can help foster their commitment and construct a mental model of sustainability as a central goal that should inform their actions throughout the project. This commitment will be further reinforced through the publication of the Plan on the MCC website to ensure access for all relevant parties.

The Plan will complement and may share some elements with the M&E Plan and the Program Closure Plan, but its focus will be specifically on sustainability and the *planning* required to achieve it. While the M&E Plan assesses progress towards the compact goal and defines the evaluations to be conducted and analytical strategies to measure them, the Sustainability Action Plan will assess sustainability capacity, roles and pitfalls and will plan early in the compact period how to improve the prospect of project sustainability. The M&E Plan includes process, output, outcome and goal indicators in its indicator tracking table, but not specific sustainability indicators, which the Plan will target. Some of the M&E indicators could serve to track sustainability efforts, and these complementarities are encouraged as to avoid increasing data collection efforts. The Program Closure Plan describes the post-Compact monitoring and evaluation plan to *observe* the persistence of benefits created under the Compact (Millennium Challenge Corporation, 2012) which is a great complement to evaluate the Sustainability Action Plan's assessment of risks and mitigation plans to ensure sustainability. However, as mentioned in the previous chapter, the persistence of benefits is just one dimension of sustainability and the Plan should also track operational maintenance, institutional resilience and usage.

Both the M&E and the Sustainability Action Plan will be prepared early in the compact and the Plan may reference the M&E Plan for contextual purposes. However, all sustainability specific assessments, indicators or strategies must be included entirely in the Plan, as to maintain a single sustainability reference document. The Plan should also be instrumental in the preparation of the Program Closure Plan, as all compact sustainability strategies, roles and indicators will be easily referenced to this single document.

Elements of the Sustainability Action Plan

The Plan should be divided in the following three main sections: (1) actors and institutions; (2) resources; and (3) contingency scenario analysis.

For each section there will be (1) an assessment of the current state of relevant parts and/or players; (2) proposals to address limitations on the prospect of sustainability, with specific commitments offered by the relevant stakeholders; and (3) a plan for continuously measuring and tracking indicators of progress within the elements of each section. The indicators can be included in the M&E Plan, for simplicity. The tracking of more critical indicators can be enforced as a CP. Since the Plan is meant to be

comprehensive, each activity and sub-activity should be considered and, if relevant, addressed in the Plan. At the same time, recognizing the need for compact components to preserve a degree of responsiveness to the unique political and economic environment of each country, the Plan elements should be sufficiently general as to allow a degree of flexibility as to how each is contextualized within a given partnership.

The sustainability dimensions as described in the previous chapter offer a structure for analysis throughout each of the sections. For example, the Plan should address questions like the following:

- *Who will be in charge of maintaining the project post-compact? Do they have the necessary capacity, resources, and incentives to do it? Will they have the necessary institutional knowledge? If the agency already exists, is its periodic budget allocation consistent with the maintenance cycle of the project? What are their incentives? Are there counterweights that can hold them accountable?*
- *What exogenous circumstances could alter actors' capacity or willingness to maintain the project? Are there political or environmental risks that could threaten institutional resilience? When and what can be done to mitigate this?*
- *Under which circumstances could the project not be used as much as expected? Which are the post-compact risks to project usage? What can be done to incentivize projected usage? Could scale up be supported?*
- *What exogenous factors (environmental, for example) could reduce benefit streams even under adequate maintenance and consistent usage? Can they be mitigated?*
- *What are the necessary indicators to track progress towards and commitment to sustainability? Which country agency can collect this data? Do the data collectors need capacity building and resources?*

Actors and Institutions

In this Section, the Plan should specifically identify and describe the actors and institutions that will be involved in O&M of assets across the project life cycle. These include the institutions that will own the assets, oversee or conduct maintenance, manage the budget, and measure sustainability post-compact.

The Plan should include an assessment of the capacity of these institutions to adequately perform their tasks and identify areas for improvement early in the compact. This capacity assessment should not be limited to actors' technical knowledge; it should also consider institutional knowledge and the alignment of incentives to adequately perform their tasks.

For example, the WUAs in Moldova are critical actors in the pursuit of long-term sustainability and maintenance of irrigation systems. WUA personnel were trained during the Compact Period on how to run the WUAs, administer the budget, and use computers to carry out these tasks. According to interviews

with three WUAs in Moldova, some are struggling to retain trained personnel and transfer knowledge upon personnel transitions. This risk could have been diagnosed and addressed during the Compact period by building tools and techniques for preserving WUA institutional knowledge, for example through the preparation of training materials for new personnel. Similarly, in Senegal, MCA trained SAED personnel during the compact period to use map software and irrigation maintenance systems. However, there is no plan in place to transfer this institutional knowledge in case these individuals quit. Preparing technical manuals during the compact could mitigate this risk.



To enhance sustainability prospects, the Plan should include a strategy for building networks that connect key actors and institutions that will be involved in O&M and sustainability activities. Pre-established communication channels and collaboration among these entities can facilitate a smooth transition after the Compact.

For example, in Moldova, the road is owned and maintained by state and local road authorities as well as mayoralties. Each authority is engaged in its own O&M activities for the road network, and each agency's activities affect the responsibilities of the other. It became clear in our interviews that local mayoralties in Moldova own the street lights that line the MCC road, but they do not have money to keep the lights on. This can contribute to vandalism and theft as well as dangerous road conditions at night, which increase the maintenance burden for the state and local road authorities. The state and local road authorities also have differing levels of awareness of road conditions and maintenance resources. In Senegal, meanwhile, although representatives of local agricultural collectives in the Senegal River Basin praised MCC's efforts to effectively reorganize the structure of local councils and committees, they noted that simple material constraints, such as a lack of vehicles for transportation, complicated their ability to convene meetings and correspond as intended. Communication channels and strategies among these entities could be strengthened to take advantage of economies of scale and possibilities for

collaboration, which would compensate for each party's gaps in resources or knowledge. The MCA can begin opening up the channels of communication by organizing meetings and designating people in each organization with primary responsibility of communicating with other relevant agencies. The MCA can periodically assess the status of communication and collaboration among these parties during the compact period. Once the networks have emerged and sufficiently strengthened, they may persist after the compact, particularly if the parties involved consider them beneficial.

The Plan should also include provisions to ensure a smooth transition from implementation to maintenance agencies. As acknowledged by MCC's Program Closure Guidelines, the implementing agency (the MCA and the government agencies closely involved *during* the compact) will sometimes hand off ownership and oversight responsibilities of the asset to another actor at the end of the compact period. Critical technical and institutional knowledge can be lost during the transition without prior planning. One method for ensuring a smooth transition is for a key member of the maintenance agency to work alongside its counterpart in the implementing agency through a secondment arrangement, with the goal of developing training and information manuals for the operation and maintenance of the asset. The cost of the secondment could be covered by the MCA as an investment in the project's sustainability.

For example, in Moldova, Apele Moldovei was not heavily involved in the irrigation system design and development; these processes were mostly managed by the MCA. Upon completion of the systems, Apele Moldovei transferred ownership of the completed irrigation systems to the WUAs. Also, the MCA transferred the road project to the SRA and mayoralities, who were not central to the project design and implementation phases of the project.

Under the Plan, the MCA should consider engaging in capacity building of the National Statistics Office (NSO), where appropriate (if an NSO exists, is willing to collaborate with MCC, and could benefit from such training), and establish a relationship with the NSO to ensure continuous project-related data collection. This endeavor could be extended to other government agencies willing to collect and share information within their jurisdiction. The independent impact evaluation agency hired by MCC usually tracks and measures sustainability indicators after compact closure, but this endeavor expires after 4-7 years. Where capacity and resources permit, MCC should rely on the local NSO to continue gathering the data needed to track sustainability which will be defined in the Plan early in the compact. Ideally, the NSO should be involved from the onset of the compact to ensure adequate commitment and preparation. Necessary MOUs should also be signed to ensure the information will be reported back to the MCC over time and made public, if possible, to allow local actors to contribute to project sustainability. This data collection effort would not substitute current independent evaluations but rather complement and outlive them.

In Moldova, for example, MOUs were signed with GoM institutions for them to report post compact indicators back to MCC. In Senegal, for example, NSOs displayed willingness to share indicators if requested. The opportunity to use, and improve, the efforts of data collection in NSOs must be tapped by MCC routinely to improve sustainability tracking post-compact.

Resources

The Plan should describe the host country resources available to agencies for carrying out O&M, for example, federal budget commitments, fee collections, specific tax budgets, among others. This Section should also ensure that budget deficiencies will be corrected for before the compact ends. The Plan should include specific commitments by relevant institutions to bridge the budget deficiencies. In this Section, the effect of budget horizons on agencies' ability to plan for the future should also be considered. Shorter budget horizons limit agencies' capacity to undertake long-term investment planning, particularly in insecure economic or political contexts where consistent budget support depends on the whims of national legislatures. Agencies involved in O&M may hesitate to commit to long-term tasks without a secure, uninterrupted stream of funding over the course of one or two years.

For example, in Senegal, SAED felt more confident on the project's sustainability prospects since their budget horizon switched from six months to two years, which allowed them to undertake longer-term planning. However, sometimes resource availability is contingent on the political context and behavioral tendencies of individuals involved. These nuances should be taken into consideration when projecting future funding resources for sustainability activities. For example, interviews suggest that the Senegal and Moldova projects assumed that the irrigation systems built by MCC will increase farmers' incomes. This will enable farmers to pay WUA fees, which will fund irrigation system maintenance. The underlying causal chain may be flawed, though. It is possible that, even if the project achieves the projected income impact, the farmers may refuse to pay their fees due to behavioral biases, WUAs' failure to enforce the fees, or an inability to pay.

The Sustainability Action Plan would consider these possibilities when assessing whether the agency has a sufficient budget for O&M. In the aforementioned case, the risk of farmers not paying fees should be documented and options to (a) increase the possibility of them paying; and (b) cover O&M costs from a different source, should be considered and implemented. For example, a fee payment schedule that collects fees right after harvest when farmers have higher incomes instead of before could increase fee collection. Tying fee payment to the access of other rights, for example keeping crops in the warehouse, could also help increase collection. Including an option to pay in kind, and then have the WUAs sell in bulk these payments would reduce procrastination and other mental barriers. As for alternative O&M budget sources, WUAs could be encouraged to create weekly market spaces for farmers (potentially with initial support from MCA) to sell their crops and charge fees for the stalls. Finally, being realistic about

when farmers will finally be able to cover all fees could help the government budget for the agency's O&M expenses adequately.

An element that can significantly impact the required budget for maintenance is whether the project itself is defective. The Plan should address ways to use the defect liability period more strategically to avoid these downfalls. In particular, if the defect liability period commences during a season in which the system will not be used, farmers may be subject to a heightened risk of flaws arising outside the defect liability period, when the systems are in use. This potential risk and associated costs should be considered, and a mechanism for addressing or averting the risk outlined, within the Plan.

Scenario Analysis

Each Plan will contain a scenario analysis, which will describe the potential implications of shortcomings or failures in meeting particular goals and strategies outlined within the Plan. Analysis of these scenarios is a useful thought exercise that will encourage the MCA to identify the elements of the Plan that are most difficult to achieve, the importance of each element in overall sustainability, and potential mitigation or fallback strategies. It also has practical benefits: if sustainability risks are determined early in the Compact Period, contingency plans can be developed, and, if the risk materializes, the contingency plan can be deployed or tailored to fit the circumstances at hand.

In the case of Moldova or Senegal, one scenario could explore contingency plans in the event of poor training, capacity or funding within the WUAs. The MCA would need to identify the actors, institutions and resources that could be allocated to support the WUAs while partially taking over their operations and maintenance responsibilities with respect to the irrigation systems. The MCA could consider if Apele Moldovei, the ACSA, or other donor agencies have the capacity and bandwidth to take over these roles. Once an institution is identified, the analysis would proceed and consider the potential arrangements and time needed to mitigate the sustainability risk.

The impact evaluation for the Irrigation and Water Resource Management Project in Senegal contains some examples of the types of scenarios that should be included in the Scenario Analysis. The evaluation posed the question of whether political, economic, social, and environmental changes took place during the Compact Period. Such changes can have serious effects on the efficacy and sustainability of a project, and if such potential changes and their implications are considered when the Plan is being written, projects designs can be made more flexible and accommodating of such changes.

Moldova experienced heavy rains during the first year in which many of the irrigation systems were built. The systems are not needed or used as much when it rains; thus, in some cases the systems were not in use during all or most of the defect liability period. Thus, any faults in the system may not have been

uncovered during the defect liability period. This kind of environmental scenario could form part of a scenario analysis. One potential contingency plan is to offer ongoing maintenance support to farmers after the end of the defect liability period (through a federal budget provision) or negotiate with the contractor for the extension of the defect liability period if the system is not in use during it. The Plan would enable the MCA and MCC to consider these stumbling blocks early and create such contingency plans.

Another type of risk to sustainability is the risk of not finishing the project in time, and thus having to leave it to the local government to conclude the project and carry out post-project maintenance transition. In addressing this type of risk to sustainability, MCC has made commendable efforts in lengthening the phase of compact development to around three to four years from around one year (United States Government Accountability Office, 2008). The longer period between a country's selection as eligible to its compact's entry into force serves two purposes. First, it accords the partner country more time to establish the structures and capabilities required to begin implementing compact projects. This yields a more predictable pace of compact implementation and disbursement of compact assistance. Dedicating more time and effort in compact development is especially important if the compact size is larger and project design is more complex, where risks to sustainability are greater. Second, it ensures MCC undertakes due diligence process to gain the necessary information to adequately assess the feasibility and sustainability of the compact, before the focus moves away from project design into implementation upon entry into force (MCC, p. 34). In addition to ensuring the capacity for project implementation, MCC could also leverage this extended phase of compact development to ensure that MCA also has the capacity to tackle potential risk to sustainability. The following thought exercise offers one example of implementation risk assessment that can impact sustainability in the longer run:

- *Given the capacities of the compact country as it enters into force and the prevailing market conditions, what are the potential risks to project implementation?*
- *Are the established technical capacities of the compact countries adequate not only for compact implementation, but also to tackle the possible risks to implementation?*
- *If the risk occurs, what elements of the project could be held back, and what is the estimated delay time? Does it threaten MCA's ability to implement the project within the five-year time period?*
- *What are the contingency plans or countermeasures that MCA could take to remedy the identified risks to sustainability?*

Such a thought exercise should also be performed for every post-compact element of the project, and the contingency plans included in the Plan should be supported by government agencies' commitments to act accordingly if the risk materializes.

However, an earlier risk assessment does not guarantee that MCA will identify *all* sustainability risks associated with the project. In fact, there are risks to sustainability

that may not surface until the project is being implemented. This is why the Plan and in particular its risk scenario assessment, must be updated throughout the compact as new threats to sustainability are uncovered.

In Senegal, for example, mines were found along the road RN6 in the Casamance region, leading to delays in the road construction to make way for road de-mining and which was an important element contributing to not finishing the project before compact closure.

For scenario analysis to have a beneficial effect, the risks identified must be monitored, and this will entail time, effort, and costs. Some risks discussed above are easy to monitor and are likely already tracked, such as key political, economic, and environmental occurrences. Some risks may be harder to track, such as the status of WUA funding and training. Thus, the risks identified and tracked should be limited to those that are easy to monitor or already monitored, as well as those that would demand additional time and effort, but are worth the costs incurred because of their substantial effect on sustainability.



Recommendation II: Creating Post-Compact Sustainability Funds

MCC should consider creating “post-compact sustainability funds” using host country contributions to finance sustainability-related expenditures after a compact has concluded.

One significant risk to sustainability across all MCC engagements is the lack of funding beyond the five-year compact period. Even when the options for sustainability have been carefully deliberated and incorporated throughout implementation, in most cases they require post-compact financing. Funding can be required for the physical sustainability of the project and/or to retain qualified human resource personnel to ensure institutional sustainability. As experience has shown, the revenue streams from dedicated levies (e.g. road tolls or gasoline tax for road maintenance) may prove to be insufficient to undertake the maintenance and rehabilitation of large infrastructure projects like national highways network.

In Senegal representatives of SAED mentioned that the water usage charges were contributing to only 15% of the maintenance budget, which would be insufficient for repairs in case of breakdown of the highly expensive pumping equipment beyond the O&M period covered by the contractor. Another example from Senegal is FERA, which is formally charged with responsibility for road maintenance in general, but has no dedicated source of funding earmarked for the upkeep of MCC roads. In case of revenues drying up, FERA may choose to de-prioritize MCC roads for Maintenance and Rehabilitation (M&R) and thus compromise on their sustainability. Similarly, in Moldova, a revolving fund was established as a part of the Access to Finance Initiative (AFI), wherein the extra revenue from repaid loans was intended to finance the Moldova’s SDA. But continuation of AFI loan disbursements into the foreseeable future remains unclear; the revolving fund used to finance the SDA could dry up and SDA might not be sustained.⁴

These examples point to the need of a robust funding mechanism that reduces dependence on small revenue streams vulnerable to external shocks to ensure projects remain operational and beneficial post-compact. Therefore, one possible solution to insure against this risk is to establish a "post-compact sustainability fund" (“Fund”). We

⁴ A similar situation is noted in MCC’s 2012 Sustainability Operations Review, where the report notes that the installation of weighing stations in Honduras to support the Government’s intent to raise revenue (to cover the cost of damage caused by overloaded vehicles), was jeopardized due to delays and overruns in the project. (pp. 13-16)

believe this approach offers great promise, but acknowledge that it may require innovative approaches to execution given the strict five-year restriction beyond which no implementation money can be spent.

Section 609(b)(2) of MCC's authorizing legislation reads:

"... the Compact shall identify a contribution, as appropriate, from the country ... toward meeting the objectives of the Compact.... and should continue for the duration of the Compact."

We suggest that a more liberal interpretation of this clause permits MCC to strategically leverage host country resources to achieve more operational flexibility in addressing sustainability issues through the creation of the Fund as a pool of resources dedicated to sustainability-related investments and free from congressional restrictions. The utility of the Fund lies in its ability to “ring-fence” host country resources for O&M, a need identified in MCC's 2012 review of sustainability.

Establishment of the Fund

We conceive of a two-stage commitment process through which the Fund could be established. In the first stage, during which MCC disburses compact implementation resources, host countries make regular contributions of domestic resources that could be channeled into the Fund. Since any U.S. government resources would be subject to MCC's legal restriction, it is necessary that partner countries be the primary contributors to this fund.

In the second stage, MCC would put in place a mechanism to ensure that the resources accumulated in the Fund are spent on their intended purpose – i.e. sustainability of the MCC compact projects. There are several available options to make the partner country commit in this regard. The most logical option would be to make the creation of a sustainability fund a part of the CPs. Sufficient emphasis on this arrangement during pre-compact negotiations should result in host country compliance, particularly if there is a prospect of a follow-on compact. To make such a commitment palatable to host countries who may resent being told how to spend their own resources, this strategy should be framed as a commitment device which facilitates partner country to follow-through on its own promises. This possibility becomes much more relevant in the cases where there is substantial country-ownership but potential risks to the sustainability of the project (e.g. change in the elected government in upcoming elections) are also high.

The following table summarizes the two-stage process envisioned to establish the Fund:

Table 3: Two-Stage Commitment Process to Create Post-Compact Sustainability Fund

	Description	Options
Stage 1	The host county commits to annual contributions to the sustainability fund for the five years of the compact	Presented and negotiated as a part of CPs; incorporated as covenant
Stage 2	The fund is utilized after the end of the compact	(A) Overseen by USAID/Embassy
		(B) Overseen by an International Financial Institution (IFI)
		(C) Overseen by the partner country itself

Stage 1: Host Country Contributions to the Fund

For each year of the compact, the partner country should agree to allocate and contribute a pre-determined sum to the Fund, the quantity of which may be decided based on the type of the project and analysis of the sustainability risks specific to the partner country (and outlined in the kind of document recommended in the previous chapter). Maintaining sufficient medium-term funding for O&M is a part of all investment planning processes – and usually a part of "action plans" agreed upon in the compacts – but this suggestion is a safeguard to ensure that resources to support these actions materialize. Thus, once the compact is completed, the partner country will have a substantial pool of funds available to ensure the sustainability of the completed projects. Partner countries receiving their first compact may be more amenable to this arrangement owing to the prospect of a second compact. Countries receiving their second compact may be more reluctant to commit to such a mechanism, but in these cases such a device is all the more necessary because MCC does not enjoy the leverage afforded by the prospect of a follow-on compact.⁵

As discussed above, this arrangement can also be offered as an option (and not necessarily a condition) during initial negotiations, to make it more acceptable and palatable for the partner countries. Genuine country ownership of projects means countries will naturally be interested in their sustainability, in which case a measure to safeguard resources should not be objectionable. For countries that are not interested or accustomed to investing in project sustainability, such a commitment device is likely to

⁵ Unless of course MCC begins to consider third compacts for countries.

have the largest marginal effect. Thus, the Fund will function as a kind of insurance policy which mitigates potential sustainability risks because of moral hazard, adverse selection or unexpected exogenous shocks.

Stage 2: Post-Compact Administration of the Fund

The second stage is ensuring that the funds collected over the period of the compact are actually spent on sustainability-related investments post-compact. This is much more complicated to implement given MCC's diminished power to enforce commitments from partner countries after a compact has concluded. The local government may face budgetary pressures to divert fund revenues to other purposes, or even toward O&M of non-MCC projects. Recognizing that MCC has no leverage on the partner country beyond the prospect of follow-on compacts, we propose three approaches to ring-fence the resources in the sustainability fund through a commitment mechanism:

- A. *Partner with the US Embassy and/or USAID (if it operates in the partner country).*
- B. *Partner with any reputable multilateral financial institution working in the region such as the World Bank, the African Development Bank, the European Bank, or the European Bank for Reconstruction and Development.*
- C. *Leave the management of the fund totally to the partner country. Each option is discussed in more detail below:*

Option A: Administration by USAID / U.S. Embassy

Section 609 (b) (1) (K) of the MCC Act 2003 reads, "*The Compact should take into account the national development strategy of the eligible country and shall contain: a description of the role of the United States Agency for International Development in any design, implementation, and monitoring of programs and activities funded under the Compact.*" Therefore, in countries where USAID is working simultaneously with MCC (especially for those receiving their second compact) entrusting the oversight of the sustainability fund to USAID might be a feasible option with the fewest legal complications. Moreover, Section 615(a) of the aforementioned act binds the CEO of the MCC to consult with Administrator of USAID to coordinate the activities of both entities. The arrangement can be customized depending on the Congressional earmarks for USAID for the particular sector. In cases where USAID does not have presence in the host country, this responsibility may be entrusted to a relevant office in the local U.S. Embassy with requisite financial expertise to exercise oversight on the use of funds by the partner country. There may be problems concerning lack of technical capacity at the U.S. Embassy, but the idea is not to directly and actively administer the fund, but rather to exercise oversight to ensure that the partner country is using the money towards the upkeep of MCC project.

Option B: Administration by a Partner Development Institution

The second option involves partnering with another development institution, such as a regional development bank, which could play either a fund management role or directly absorb the fund resources to its own balance sheet and place them under a dedicated window for expenditures related to the sustainability of MCC projects. The first scenario, in which a regional development bank only administers the Fund, offers the advantage of simplicity and greater palatability for partner countries reluctant to relinquish domestic resources to a third party. Post-compact, the bank could disburse resources in the Fund back annually to the host government and assist with planning for investments on sustainability-related expenditures for a small fund administration fee; in this scenario, however, there is less safeguard against the host country unilaterally demanding that the return of Fund resources. The second, more forceful scenario in which the host country relinquishes the fund's resources to an outside institution offers a more forceful safeguard against the fund being diverted but may be more difficult to negotiate politically. By insisting on this arrangement during the pre-compact stage alongside other CPs, MCC can leverage its greatest influence to encourage the host government to contribute a small percentage of the total amount for sustainability and potentially letting go of the its direct control. In either scenario, the specific nature of the partnership could be provided for through frameworks for collaboration discussed in the following chapter.

Option C: Self Administration by the Partner Country

The third and most lenient option may be to leave the administration of the fund to the partner country itself. Given MCC's objective of building domestic capacity to own and operate its projects, this approach offers the greatest alignment with MCC's objectives. This would also be the most palatable option for partner countries themselves – as well as the least legally and diplomatically challenging for MCC. In exchange, however, it offers the greatest risk of partner countries backpedaling post-compact and diverting Fund resources to uses other than project sustainability – the very risk the Fund was established to mitigate.

We conclude this chapter by noting that the idea of a sustainability fund is not very different from the sector-specific O&M funds that are already being set up by MCC in some compacts; the principal difference is that the Fund is envisaged to be a dedicated resource exclusively for MCC projects. It will be larger in scale and have the potential to finance more than just O&M activities of the projects, for instance financing the MCAs beyond compact closure, thereby ensuring institutional sustainability and strengthening. It should be noted, however, that while the Fund is a useful fiscal arrangement, it should only ever be a complement to, and *not* a substitute for, a dedicated stream of domestic revenue to sustain projects post-compact. It is hoped that together, the two will ensure sufficient fiscal space to support the maintenance, resilience, and continued beneficial usage of MCC projects with a higher degree of certainty.

Recommendation III: Establishing Partnerships with Other Donors

MCC should consolidate efforts to establish strategic partnerships with other development agencies, and take measures to streamline such partnerships, to ease post-compact transition

The previous recommendation explored how MCC might more creatively deploy compact resources to address difficulties around sustainability-related investments post-compact. This final recommendation extends this analysis through an exploration of how partnerships with other donors and aid institutions might similarly improve the sustainability of MCC compacts by allowing MCC to take advantage of their deep country-specific expertise and greater operational flexibility. We commend the steps MCC has already taken to address donor coordination broadly in compact agreements and the creation of an office of strategic partnerships, and believe work to consolidate and streamline partnerships with other, long-term institutional actors in compact countries should be continued to safeguard the sustainability of MCC investments long after compact closure.

Risk to Sustainability

By nature of the MCC selection process, the countries chosen to receive MCC compacts are often saturated with foreign aid actors. The 25 compact countries selected to date – all lower income to lower-middle-income countries whose governments have demonstrated a clear commitment to good governance and human rights – are natural choices for the aid community. Senegal offers a vivid demonstration of the crowded development space in which MCC often operates in compact countries: MCC is only one among many donors with substantial aid presence in the country, including multilateral institutions such as the World Bank, African Development Bank (AfDB), and Islamic Development Bank, as well as bilateral actors such as the French Development Agency (AFD) and Japanese International Cooperation Agency (JICA). At the same time, voices across the donor community have increasingly called for greater donor coordination in pursuit of common development goals.

We believe that more proactive and formal partnerships with these institutions, several of which the United States is a shareholder in and routinely partners with (like the World Bank), offer several advantages, including:

- 1. A longer timeframe:** As discussed, MCC’s five-year time limit constrains its ability to address issues that may arise after compact closure. Problems that arise towards the end of a compact or after it has close may be easily addressed by other actors unconstrained by MCC’s unique restrictions.
- 2. Better goal alignment:** Though they operate under different mandates, aid agencies often share the similar development and reform priorities for a country. Strategic partnerships can help by leveraging existing agencies’ comparative advantage and accumulated expertise on development work in a given sector. If MCC is working in an area in which another donor has years of experience, all aspects of its investment, including sustainability, stand to benefit from consultation and collaboration.
- 3. Reinforced policy reform advocacy:** Through conditions precedents, MCC routinely conditions its grant assistance on commitments to key policy reforms. After disbursement begins, however, MCC loses much of its leverage to push for reforms that are often critical to the success and sustainability of its projects. By combining forces with established donors and institutions, MCC can increase the likelihood that critical reforms necessary for project sustainability (e.g. extended investment planning cycles within finance ministries) are adopted.
- 4. Co-financing:** MCC can benefit from co-financing with a longer term funding partner that will be able to safeguard its investment long after MCC has left the country. In addition, established donors may have greater familiarity with and expertise in mobilizing private sector participation in development projects, which could bolster the institutional sustainability of investments.

Past and Current Efforts

In our review of compacts, we note that many compacts already detail coordination between different donors, but identify several ways this could be improved.

For example, Senegal’s compact notes that the EU, USAID, and the AfDB would be involved in infrastructure projects, though it does not provide detail on a partnership framework. Senegal’s compact alludes to working with the ADF by “looking for opportunities for synergy” but does not elaborate specifically on what these opportunities look like or how cooperation will be pursued.

Ideally, a partnership among donors should be established during the compact planning phase with all parties acknowledging their specific roles and responsibilities. Consolidating partnerships early on and through a formal procedure will also bolster sustainability of MCC investments by clarifying the post-compact role and responsibilities of other partners during the investment planning phase. Below, we offer different examples of partnership that achieved varying degrees of success in an effort to draw common lessons from these experiences:

Pre-Compact Partnerships

In 2007, MCC and the World Bank coordinated efforts to address the government's water and sanitation strategy in Mozambique. The World Bank had the institutional knowledge and the resource mobilization network to address the problem, while MCC provided funding from its compact to address key project requirements. From MCC's perspective, the partnership with the World Bank was instrumental as it used the World Bank's resources, experience, and knowledge. The World Bank was also able to invest in areas beyond MCC's geographic reach, providing a more holistic development intervention. Overall, MCC identified the partnership as a crucial step in ensuring the overall sustainability and potential for success of the water and sanitation project.

Key measures from that partnership which contributed to success included MCC using the World Bank's existing economic and sectoral work to make sure the MCC investments were aligned with country's water sector priorities and other donor efforts. MCC additionally benefited from the input of staff of the World Bank's Water and Sanitation Program and the World Bank's Mozambique Country Team retreat (MCC 2008).

While inter-agency cooperation on water sanitation has generally been effective, MCC's cooperation with USAID in Moldova has been less successful. MCC sought to tap into USAID's existing expertise in agriculture, relying on USAID to provide training to farmers on how to use rehabilitated irrigation systems post-compact. However, our field visit revealed that communication has been fragmented, and USAID's provision of training has been slow.

Post-Compact partnerships

MCC has also forged partnerships post-compact, usually out of need for on-the-ground support to facilitate project continuity.

In 2013, for example, MCC signed an MOU with the World Bank and Ghana's Millennium Development Authority (MiDA) – the entity established to manage and implement MCC programs – to strengthen procurement procedures, recognizing World Bank and MCC's shared aspiration to improve procurement. The partnership also had the goal of expanding upon programs already implemented through the compact, which had a component focused on domestic procurement capacity. This compact was signed in 2006, so the partnership was established well after the compact ended in 2011. Though this partnership wasn't established directly for sustainability purposes, it outlines a specific instance of post-compact partnership to arrive at a shared goal.

Primary drawbacks in establishing partnerships post-compact to carry out activities include a lack of continuity, which is exacerbated by the fact that partners may lack the requisite background knowledge regarding program design. Additionally, partner organizations may not be as motivated to carry out post-compact maintenance activities since they were not involved from the beginning.

Develop Joint Policy Frameworks to Facilitate Co-Financing

One obstacle to partnership between development actors is the need to establish a legal arrangement that satisfies each institution's policies on issues such as procurement or environmental safety. While MCC has established agreements with other actors in specific countries, the current approach requires a bespoke arrangement to be negotiated for each of MCC's compacts. In Senegal, for example, a set of MOUs broadly detail the form of collaboration and usually do not have a termination date, allowing entities to work together for the duration of the project. If MCC were to pursue a compact in neighboring Mauritania, however, it would have to renegotiate separate agreements, even if they involved the same parties.

Strengthening existing frameworks with other development actors where they exist, and developing them where they do not will facilitate all subsequent projects in which MCC joins with that agency as co-financier. These agreements would streamline partnerships by establishing a readily available template for co-financing of projects, eliminating the need to develop ad-hoc or country specific arrangements, and because the United States is itself a shareholder of the largest multilateral actors in the development space, there should be a natural overlap in the relevant safeguards and standards, creating space to establish such joint policy frameworks.

Beyond efficiency gains, the process of developing these frameworks would create an opportunity for greater contact between MCC and other donors and foster a symbiotic culture of collaboration between MCC and other partners. Our field research revealed that many officials at other development institutions admire MCC's business model, effectiveness, and influence, but also find it inaccessible.

Platforms for coordination

While the idiosyncratic nature of the development landscape in each of MCC's partner countries complicates efforts to adopt a standardized approach to aid coordination, we offer a suggestion below of how an enhanced approach to partnership might work in Senegal.

The principal donors investing in Senegal are USAID, the USDA, the EU, the AfDB, African Development Foundation (ADF), JICA, and the World Bank. MCC in Senegal did not formalize any strategic partnership with other donors in the first compact, though it worked on some degree with the AfDB on the RN6 infrastructure project. However, Senegal is going through the process of creating

a second compact, and we encourage MCC to seek partners with an established presence in priority areas.

Donor's group

In Senegal, aid partners have established a donor's group called G50 to boost aid coordination. The G50 is composed of the top 50 technical and financial partners dedicated to deepening policy dialogue with the Government in light of the Paris Declaration (AfDB, 2016). This donor's group has taken measures to improve the working relationship between several aid agencies.

Thematic sector coordination

Several thematic groups around sector issues have also been created. For example, the World Bank and the AFD co-chair a coordinating unit for agencies involved in the energy sector. However, there have been some challenges related to its functionality and purpose, which MCC's participation could help to address. MCC could benefit from these thematic groups through proactive participation in sector groups that correspond to priority areas for investments based on its constraints analysis by getting a fuller picture of the context in which its projects will take place.

Ideas for Further Exploration

The team discussed a number of strategies to enhance the sustainability of MCC compacts that would require, to varying degrees, a departure from MCC's traditional business model and mandate. While perhaps not entirely feasible within the scope of MCC's enabling legislation, the ideas below are included as exploratory suggestions short of full recommendations based on our diagnosis of the principal risks to sustainability.

MCA's should be no less sustainable than the projects they support

A crucial element to the sustainability of an MCC compact is the durability of the institutions that are responsible for maintenance of the project and its assets once the compact has ended. Building on the definition offered at the outset of this report, sustainability of an institution implies financial sustainability, the capacity to operate project components, and the ability to withstand social or political shocks such as changes in government. The ability of an institution to display these aspects of durability will in turn enable the entity to effectively address other aspects of project sustainability, including maintenance of physical assets and continuation of project monitoring.

To facilitate institutional durability, it is necessary to analyze the mechanism by which MCC implements projects with a partner country -- the MCA. To maximize the likelihood of project sustainability, MCC must carefully consider the composition of the MCA, where the MCA sits in relationship to local bureaucracies, and how the existence of the MCA affects the local bureaucracy. In order to address these three areas of focus, we recommend that MCC take into consideration three changes to MCA construction and procedure:

- 1. Sustain efforts to involve civil society actors from the outset of country engagement in order to increase the participation and inclusion of civil society actors within the MCAs*
- 2. Either embed MCAs within local bureaucracies or absorb them into local bureaucracies once the compact ends*
- 3. Given MCA's unique ability to attract technical expertise away from local institutions, strategies should be implemented to minimize in-country "brain drain."*

The unique ability of MCAs to coordinate activity across a variety of actors is not necessarily matched by local government agencies. Because of this, the dissolution of MCAs can sometimes create a capacity vacuum, leaving local governments unable to do the job for which MCAs was once responsible. Implementing these recommendations

would enable MCAs to monitor the sustainability of a project after MCC reaches its five-year limit, while maintaining relationships with project stakeholders. It is important that an entity like the MCA be able to provide consistent support for stakeholders, not only to create connections and open lines of communication between actors to make project sustainability more efficient, but also to maintain relationships that create buy-in from all participants in the project so that stakeholders remain engaged.

Finally, it is critical that a model which prioritizes the MCA's contributions to sustainability is clearly defined in a country's compact as well as in the compact closure plan. For MCC in particular, which implements projects over a maximum five-year period, incentives are designed such that once a compact enters into force, focus shifts from project design to implementation of the project, which can come at a cost to addressing sustainability concerns (MCC, 2012, pp. 3, 34). Problematically, sustainability is not systematically introduced into project implementation at the outset, as discussed in Recommendation I of this report, so it can be expected that concerns about the design of a project may not surface until a problem emerges or until some sort of mid-term review is initiated. A failure to address the concerns in a timely fashion can threaten sustainability. This means that, as the entity most responsible for ensuring sustainability of a compact, it is paramount that the MCA be defined in a way that ensures durability of the organization.

Sustain efforts to involve civil society actors from the outset of country engagement and bring them into the MCAs

MCC project implementation should incorporate early and sustained involvement from civil society actors. Though MCC currently solicits input from private sector and civil society actors during the project selection phase, non-government actor involvement in the MCA tends to be limited. Consistent incorporation of civil society from the beginning of compact development hedges against cynicism in project development and contributes to accountability in the compact design phase.

In the Moldova case, a prime civil society candidate for inclusion in the MCA would be the National Agency for Rural Development (ACSA), an NGO that does not have much in the way of financial resources, but does have personal relationships with farmers who are beneficiaries of MCC's irrigation project and participate in the Water User Associations formed under the compact. Since ACSA is tapped into farmers at the ground level the organization is a great resource to have represented among the ranks of the MCA. A voice like ACSA in the MCA would contribute to sustainability by making sure that bottlenecks to sustained use and impact of a project are identified and addressed as quickly as possible. For example, if there are commonalities in the types of problems that farmers have with irrigation systems or with political issues within the water user associations that is expected to diminish the sustainability of the project, having an entity that is connected to beneficiaries will go a long way toward ensuring that these issues are addressed in a timely fashion.

This is not to say that ACSA has not been involved at all in MCC's project implementation in Moldova, but that a more systematic approach toward incorporating ACSA early into the decision process and sustaining the working relationship between the MCA and ACSA post-compact is a clear opportunity to increase the sustainability of projects. This example could be extended to whatever the most appropriate civil society and private sector actors are in a particular sector of a country. Inclusion of key actors from outside of the federal government provides perspective that adds valuable insight to the project implementation and post-compact management processes.

The challenge to including private sector and civil society lies in the difficulty of finding and accessing these actors compared with the relative ease of gathering a group of competent individuals from various federal government agencies. Attracting a solid group of non-governmental actors requires advertising to or head hunting for qualified individuals that could come from broad number of places, attracting them to the MCA, and inculcating them with work style expected from MCA employees. It may also be useful for MCC to establish government guidelines on how to select independent civil society members for board positions who are not aligned with the ruling regime.

Embed MCAs in local bureaucracy or allow MCAs to be absorbed by the local bureaucracy once the compact ends

As a second consideration to ensuring that an entity accountable for MCC project assets is able to endure post-compact, MCC should take into account the relationship of the MCA to the rest of the local bureaucracy. Defining the relationship between the MCA and local bureaucracy can ensure that the locally accountable entity can stake a place in the political sphere from which to continue to fulfill its responsibilities. It also ensures that funding streams and authorities for the MCAs continuation post-compact have been accounted for, allowing for the continued existence of an entity accountable for MCC compacts.

Implementing this suggestion could come in the form of a conditions precedent or a covenant in the country compact that calls for the creation and maintenance of a host-country-administered fund used to establish the entity (i.e. MCA) in its place in the local bureaucracy. The covenant might lay out a plan for a funding stream for that entity to cover its operating costs, salaries of its employees, etc. This funding stream could be modeled on the experience of the Moldova case.

Moldova and the Sustainable Development Association

In January 2010, Moldova received a compact to implement a program that included both a RRP and a THVA project. The compact was implemented September 2010 – September 2015. While the RRP project was completed on time and well before the completion of the compact, construction of the irrigation system for the THVA project took longer than expected, and irrigation systems were not completely constructed essentially until the end of the compact.

Since the irrigation systems were built at such a late stage, MCC did not have time to initiate complementary functions of the project that were to take place after construction of the irrigation systems, including management support during the systems' defect liability period and support for provision of technical support to farmers in WUAs who were using the systems. These functions were to address risks to project sustainability, and without time to implement them, the future success of the THVA project would be seriously threatened.

To resolve this issue, Moldova had a lucky coincidence. In addition to having run under budget for its Moldova compact, the THVA initiative also included an AFI in which a lending agency disbursed loans to agricultural entities. That initiative generated a revolving fund from repaid loans, and the extra revenue from that revolving fund was then used to finance what became the SDA, or the entity that the MCA had morphed into once the Moldova compact ended. The revenue from repaid loans was then enough to sustain the SDA for at least two years following the close of the compact. During those two years, the SDA is able to ensure that WUAs are able to take full advantage of the defect liability period for their irrigation systems as well as manage the transition that occurs as WUAs take on full responsibility for irrigation systems and accept responsibility for assets that were managed for a time by Apele Moldovei, the utilities agency in the federal government.

Since the continuation of AFI loan disbursements into the foreseeable future is unclear, the revolving fund used to finance the SDA could dry up, and SDA might not be sustained. It is only guaranteed that the SDA will continue to exist for a period of two years following the close of the compact (until 2017). An extended version of this model might see the establishment of a loans program that would generate a revolving for an SDA-like entity indefinitely, thereby allowing that entity some independence from the rest of the government while still being able to fund its operations.

In the case of the SDA, the entity responsible for managing sustainability of MCC projects in-country is funded independently of the government, and therefore has the luxury of being somewhat immune to political instability in the federal bureaucracy. The challenge of occupying a space outside the bureaucracy, however, is that an entity outside of the governmental structure may find difficulties influencing stakeholders in

government. For this reason, in some cases, MCC or the partner country may wish to define a way for MCC to ensure that the MCA (or SDA) is embedded in the local bureaucracy. An action plan for this initiative should be created on a case by case basis, as each country's government is structured differently.

Of course, drawing on the Moldova experience, we recognize that incorporating an MCA into the local bureaucracy means the MCA sacrifices autonomy. During compact implementation, lack of autonomy could impede the MCA's ability to act quickly in order to fulfill its responsibilities during the limited five-year time frame in which a project can be implemented. For this reason, it makes sense for MCC to continue to operate with relatively independent MCAs during the compact, but in order to promote sustainability, in some cases MCC might choose to consider incorporating a plan to embed the MCA entity into toward the end of the compact.

However, embedding the MCA within the government structure may not be desirable for governments that experience high turnover, instability, or government corruption. In cases where it is ill-advised, difficult or impossible to embed the MCA within the local bureaucracy during implementation or during the close of the compact, the second-best option for continuing existence of the MCA could condition eligibility for a second compact on whether or not the MCA remained in place following the close of the first compact. This of course relies on the possibility of a second compact being present and credible, and does not truly address sustainability in the way that the first best option does, as the second-best option relies on donor benefits to incentivize local actors to engage in a way that promotes sustainability.



Implement strategies to minimize post-compact brain drain

Finally, the MCC should take into account the effect of the MCA institution on local bureaucracy at-large. Especially in the case of smaller countries where technical expertise may be limited, the fact that MCAs attract talented professionals may actually weaken other areas of the local bureaucracies (i.e.: government agencies), as those entities experience a sort of in-country 'brain drain' when talented individuals choose to leave their positions in these institutions and instead work for the MCA. While it is positive that MCAs are able to attract the best and brightest and inspire pride in working as part of a sustainable development initiative, the 'brain drain' that comes along with it can have harmful side effects.

This weakening of local bureaucracy may render a government less able to function in general, let alone effectively fulfill its responsibilities in cooperating with the MCA to sustain project assets, monitor impact, and so on. Furthermore, 'brain drain' can hurt the political stability of a government, leaving the government more vulnerable to turnover or other political shocks, which creates further difficulties for the sustainability of an institution like the MCA within that unstable environment. This also negatively impacts the overall health of the governance environment in-country.

To minimize the harmful effect of this phenomenon, MCC has multiple options to consider:

Option 1: Create a program where MCA employees provide capacity building/training for handovers.

The first option would create an obligation that MCA employees provide training for government employees (or private sector employees). This would involve workshops where MCAs communicate with counterparts in relevant ministries and design workshops to build the capacity of the ministries in question in order to ease the MCC project handover process if and when the MCA disbands. For example, relevant ministries would be those that would need to manage MCC projects once the MCA is dissolved, such as the Department of Health, Department of Transportation, and so on. While MCC had a similar capacity building program for MCAs in the past which has since been discontinued, it is worth revisiting the causes of program failure. If it is not possible for MCAs to train host government employees in necessary capacities related to compact maintenance, then a project's sustainability prospects are questionable from the outset.

For example, if an MCA anticipated a need to handover an irrigation project that involved management of an irrigation system that uses new materials or new technology in its design, the MCA would need to ensure that it trains the utility company so that the company has a basic understanding of maintenance and use concerns related to that irrigation system. In this way, the MCA is able

to ensure that a project's sustainability will be minimally impacted should the MCA anticipate a need to disband for whatever reason (lack of funding, etc.).

Capacity-building has always been a part of MCC projects on some level, but this suggestion calls for a more explicit model of capacity building. The implementation of Mali's compact provides an example, as it included some capacity building for a newly created legal entity (the "Revenue Authority") to manage an irrigation system. (MCC, 2012, p. 24) This example shows that MCC has internally realized the importance of capacity building in ensuring the sustainability of an investment. As a heavily evidence-based agency, MCC will naturally have some concerns about how capacity-building components play into the Economic Rate of Return of particular projects, however. In that sense, MCC will be challenged to factor sustainability into its ERR calculations in order to quantify the benefits of capacity building initiatives and quantitatively show their worth (p. 35)

Option 2: Create a contract that obliges MCA employees to return to their previous jobs.

A second option to resolve the brain drain issue would be to work with local governments to write a clause into MCA contracts that requires MCA personnel to return to their previous jobs or same organization after dissolution of the MCA.

For example, when the RRP began in Moldova, the MCA hired the procurement specialist from the State Road Authority (SRA), the entity within the federal government that manages road maintenance. During the compact, this created a difficulty for the SRA, as it was missing a vital part of its normal operations. Luckily the specialist returned to the SRA once the MCC compact was closed, but had this not been the case, it would create serious difficulty for the SRA, which was unable to fill the procurement specialist position in the interim.

The difficulty in implementing this suggestion stems from the fact that such a contract would be implemented between a local government agency and its employee. As such, it is legally difficult and perhaps ethically questionable for MCC to mandate such a contract or the details therein. Secondly, even if MCC could manage such a relationship, the fact that this contract would need to adapt to the context of the local country means it would require significant legal capacity for MCC to be involved in promoting the creation of so many different contracts in each of its beneficiary countries. It may still be worth working with a local country government to implement such a contract, however, especially in smaller countries, where the brain drain issue is particularly prevalent.

Bibliography

- African Development Bank. (2016). Bank Group's Country Strategy Paper for Senegal, 2016-2020.
- Easterly, W. (2002). The cartel of good intentions: The problem of bureaucracy in foreign aid. *The Journal of Policy Reform*, 5(4), 223-250.
- Filmer, D., & Pritchett, L. (1997). *Child mortality and public spending on health : how much does money matter?* (No. WPS1864) (p. 1). The World Bank.
- Flyvbjerg, B., Holm, M. K. S., & Buhl, S. L. (2005). How (In)accurate Are Demand Forecasts in Public Works Projects?: The Case of Transportation. *Journal of the American Planning Association*, 71(2), 131-146.
- Heller, M. P. S. (2005). *Pity the Finance Minister: Issues in Managing a Substantial Scaling-Up of Aid Flows (EPub)*. International Monetary Fund.
- Honig, D. (2016). Penny Wise, Pound-Foolish: The Costs of Politically Constrained Organizational Autonomy in Foreign Aid Implementation.
- Koerberle, S., Stavreski, Z., & Walliser, J. (2006). *Budget Support as More Effective Aid?: Recent Experiences and Emerging Lessons*. World Bank Publications.
- Lane, C., & Glassman, A. (2008). *Smooth and Predictable Aid for Health: A Role for Innovative Financing?* (SSRN Scholarly Paper No. ID 1324975). Rochester, NY: Social Science Research Network.
- Levy, B. (2014). *Working with the Grain: Integrating Governance and Growth in Development Strategies* (1 edition). Oxford ; New York: Oxford University Press.
- Millennium Challenge Corporation. (2008). *MCC-World Bank Group Collaboration in Mozambique Water & Sanitation Sector*.
- Millennium Challenge Corporation. (2011). *Focus on Results. Principles into practice*.
- Millennium Challenge Corporation. (2012). *Operations Review: Sustainability in Compact Projects*.
- Millennium Challenge Corporation. (n.d.). MCC and Power Africa. Retrieved December 15, 2016, from <https://www.mcc.gov/initiatives/initiative/power-africa>
- National Research Council. (2006). *The Fundamental Role of Science and Technology in International Development: An Imperative for the U.S. Agency for International Development*.
- Odedokun, M. O., & others. (2003). *Analysis of deviations and delays in aid disbursements*. United Nations University, World Institute for Development Economics Research.
- Ostrom, E., Gibson, C., Shivakumar, S., & Andersson, K. (2002). Aid, incentives and sustainable development: an institutional analysis of international development cooperation. *Swedish International Development Cooperation Agency: Stockholm*.
- Oswald, K., & Ruedin, L. (2005). *Empowerment sustainability and phasing out support to empowerment processes*. OECD.
- Rose, S., & Wiebe, F. (2015). *MCC @ 10 Focus on Results: MCC's Model in Practice MCC Monitor*.
- Sturdy, J., Aquino, S., & Molyneaux, J. (2014). Learning from evaluation at the Millennium Challenge Corporation. *Journal of Development Effectiveness*, 6(4), 436-450.
- Svensson, J. (2006). Absorption capacity and disbursement constraints. *Financing Development: What Are the Challenges in Expanding Aid Flows?*
- Tarnoff, C. (2016). *Millennium Challenge Corporation*.
- The Fund for Peace. (2016a). *Fragile States Index 2016: The Book*.
- The Fund for Peace. (2016b). *Fragile States Index Decade Trends | The Fund for Peace*.
- U. S. Government Accountability Office. (2008). *Millennium Challenge Corporation: Analysis of Compact Development and Future Obligations and Current Disbursements of Compact Assistance*, (GAO-08-577R).
- U. S. Government Accountability Office. (2010). *Millennium Challenge Corporation: Summary Fact Sheets for 17 Compacts*, (GAO-10-797R).
- U. S. Government Accountability Office. (2011). *Millennium Challenge Corporation: Compacts in Cape Verde and Honduras Achieved Reduced Targets*, (GAO-11-728).

