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RESEARCH

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Community-based adaptation:

Lessons from a grant competition

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Abstract

What do local communities perceive as the key problems and challenges for adaptation to climate change? Lessons are identified from a major global grant competition, the Development Marketplace, focused on adaptation to climate change. Proposals developed by non-governmental actors at the local level were informed by deep concerns that ongoing climate change and its impacts undermine development and exacerbate poverty, migration and food insecurity. Drought and floods were the most commonly identified climate risks. Adaptation proposals simultaneously addressed local poverty and climate change challenges, and offered a wide range of approaches to render local development more resilient to current climate variability. The findings have important implications for design of support to community-based adaptation, which should exploit its strong local grounding and synergies with development; help connect local initiatives to higher levels; and use complementary approaches to address policy issues.

Key words: climate change, adaptation, community-based adaptation, resilience, stakeholder participation, vulnerability

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Adaptation communautaire: leçons tirées d'un concours de subvention

Résumé

Quels sont les problèmes clés et les défis pour l'adaptation au changement climatiques selon la perception des communautés locales? Certaines leçons furent tirées d'un grand concours mondiale de subvention, le « Development Marketplace », axé sur l'adaptation au changement climatique. C'est à partir de profondes inquiétudes quant à la perpétuation du changement climatique et ses impacts érodant le développement et empirant la pauvreté, les migrations et la sécurité alimentaire, que des propositions développées par des acteurs non-gouvernementaux de niveau local furent guidées. Sécheresse et inondations furent les risque climatiques les plus souvent identifiés. Les propositions pour l'adaptation abordent simultanément les défis de pauvreté locale et de changement climatique, et offrent une grande possibilité d'approches pour rendre le développement local plus résilient à la variabilité climatique actuelle. Les résultats ont des implications importantes pour la conception et le soutien à l'adaptation communautaire, laquelle devrait se nourrir de ses fortes fondations locales et des synergies avec les politiques de développement, pour aider à elever les initiatives locales à des niveaux plus élevés, et mettre en place des approches complémentaires pour aborder des questions politiques.

Mots clés: changement climatique, adaptation, adaptation communautaire, résilience, participation des parties prenantes, vulnérabilité

1. Introduction

Several funding mechanisms for adaptation to climate change in developing countries have already been created or proposed, but experience with setting adaptation priorities is limited. Several NGOs have experience in running community-based adaptation projects (see IISD summaries of international community-based adaptation conferences, and Sperling, 2008) and many low-income countries have developed National Adaptation Programs of Action (NAPAs) (Agrawal and Perrin, 2008). However, there has been little experience in climate-resilient development across sectors and at scale.

Community-based adaptation is a promising way to manage the risks associated with climate change, as it can empower communities and offer synergies with broader poverty and sustainable development objectives (Huq and Reid, 2004; Reid and Huq, 2007; Heltberg, Siegel, and Jorgensen, 2009). It is also likely to be pro-poor in the sense that it reduces vulnerability of the poor faster than of the non-poor (see Tanner and Mitchell, 2008, and the papers therein, particular Vernon, 2008). Better understanding of community-based adaptation is therefore required and raises several questions:

- What are the characteristics of good projects donors should be looking for?
- What is the relationship between adaptation and development?
- What types of climate change risks can successfully be addressed by community-based adaptation and what types of climate science and knowledge should be used to identify those risks?
- How can small projects be scaled up and connected to national strategies and policies?

To spur innovations, the World Bank focused a global grant competition, the 2009 Development Marketplace (DM2009) on adaptation to climate change. The purpose of this paper is to identify lessons from the Marketplace for the design and funding of adaptation. These lessons are relevant for sponsors and researchers interested in adaptation projects, especially community-based ones. The experience of the Marketplace offers insights relevant to many discussions in the literature on adaptation to climate change. These include, for example: discussions about what types of risks associated with climate change can and cannot be addressed by community-based adaptation; the relationship between adaptation and development (Schipper, 2007); the choice between addressing new risks associated with anthropogenic climate change or current climate variability; the limits to adaptive capacity (Adger et al, 2009); and the role of formal climate science and community perceptions in adaptation planning (Van Aalst, Cannon and Burton, 2008).

This article is structured as follows. The next section describes the grant competition and data. Section 3 describes the climate risks and development challenges that grant seekers sought to address. Section 4 analyzes proposed adaptation responses. Section 5 discusses implications for adaptation support.

2. The Marketplace Competition

Beginning in 1998, the DM had occurred nine times and achieved worldwide penetration. Of the 1,755 proposals received in response to the call, 346 were chosen as semi-finalists, 100 as finalists and 26 as winners in successive assessment rounds. Assessors included professional staff and managers from the World Bank, donors to the Marketplace, NGOs, academia, and the private sector. Winners were awarded up to \$200,000 to implement projects over two years. Competition guidelines clearly posted on the DM guided the process. The guidelines required applicants to submit in one of three sub-themes (described in Box 1) and imposed various eligibility criteria related to organizational type and nationality, partnership requirements, and proposal language. The guidelines also announced the criteria against which the proposals would be assessed, namely innovation, clear and measurable results, project design and organizational capacity adequate to meet goals, sustainability of impacts beyond the project life span, and growth potential. The eligibility and assessment criteria are summarized in Appendix 1.

Box 1: Summary of DM2009 Sub-themes

Sub-theme 1:

Resilience of indigenous peoples' communities to climate risks

Promoted indigenous peoples' communities and organizations to develop innovative adaptation projects with a preference for those targeting women and youth. Projects were selected for their ability to: conserve indigenous knowledge in agriculture, land, and water and soil management; increase indigenous peoples' resilience to climate change; or apply innovative adaptation plans and communication strategies based on indigenous systems to accelerate learning and knowledge sharing on climate change adaptation.

Sub-theme 2:

Climate risk management with multiple benefits

Promoted adaptation projects with multiple social and environmental benefits. Projects were selected for their ability to: create low-cost strategies that spread climate risk beyond the local level (i.e., trade and value-chain improvements; micro-finance); forge innovative partnerships to build adaptive capacity of vulnerable communities (i.e., increasing access to climate risk management knowledge, information and services); or use innovative means to empower communities to take action on climate risks. Preference was given to projects targeting vulnerable groups, such as women, children and the elderly.

Sub-theme 3:

Climate adaptation and disaster risk management

Promoted innovation in responding to natural disasters linked to climate change beyond the local level. Projects were selected for their ability to: develop innovative arrangements, such as social safety nets or micro-insurance; diffuse climate risks faced by the poor and vulnerable; create low-cost spatial planning, housing or local infrastructure resistant to climate-related disasters; improve communities' capacity to use multi-hazard risk information for early warning; or use other community-based responses to climatic extremes and climate change.

Source: DM2009 Competition Guidelines (www.developmentmarketplace.org)

As mentioned, the three sub-themes focused on indigenous peoples, adaptation with co-benefits and disaster risk management. The co-benefit sub-theme received half the proposals, with the other two sub-themes sharing the remainder. The regions with the most proposals were Africa (30%), Latin America and the Caribbean (25%), South Asia (22%), and East Asia and the Pacific (14%). Fewer proposals came from Eastern Europe and Central Asia (5%) and the Middle East and North Africa (1%), in part reflecting weak civil society capacity in some of those regions (Table 1).

Table 1: Regional distribution of project implementation by sub-theme

Region	Resilience of Indigenous Communities to Climate Risks		Climate Risk Management with Multiple Benefits		Climate Adaptation and Disaster Risk Management	
	No. of proposals	Share of total (%)	No. of proposals	Share of total (%)	No. of proposals	Share of total (%)
		N=1,755				N=1,755
Latin America and the Caribbean	141	8.0	198	11.3	107	6.1
Africa	132	7.5	292	16.6	101	5.8
Eastern Asia and the Pacific	68	3.9	124	7.1	56	3.2
South Asia	54	3.1	205	11.7	131	7.5
Eastern Europe and Central Asia	15	0.9	42	2.4	25	1.4
Middle East and North Africa	5	0.3	15	0.9	4	0.2
Multiple Countries*	4	0.2	27	1.5	9	0.5
Total	419	23.8	903	51.5	433	24.7

Source: The original DM intake database. *includes one unclear entry

2.1 Data sources for this paper

Our database is one of the largest compilations of proposed adaptation projects. Another database of proposed adaptation projects is the UNFCCC database of NAPA priority adaptation projects.¹ As of September 2009, it contained approximately 400 proposals. While NAPA projects are proposed by governments and most often have costs in the USD millions, the DM proposals were submitted mostly by non-governmental actors and have costs up to the USD200,000 ceiling imposed by the Marketplace guidelines. Our database contains both variables that grant seekers self selected as part of the application process, as well as variables manually coded by the author team. We did our coding by reading through all 346 semi-finalist proposals, creating variables describing climate risks identified in the proposals. These included the type, scale and scope of the proposed adaptation interventions, and references to governments and beneficiaries. Additional qualitative insights were derived from textual interpretation of the proposals, structured interviews with finalists at the DM event held in November 2009 in Washington, DC, and roundtable discussions with proposal assessors.

¹ See http://unfccc.int/cooperation_support/least_developed_countries_portal/napa_priorities_database/items/4583.php

Much of the analysis beyond basic statistics is based on the 346 semi-finalist proposals, which are most likely to yield relevant insights. Proposals eliminated prior to the semi-finalist stage were deliberately excluded, as many did not propose adaptation, were low quality, or lacked innovation. The semi-finalists' proposals, in contrast, passed the basic criteria of relevance, innovation and quality.

Grant competition data must be interpreted with caution. Proposals could be shaped in various ways by the competition guidelines (see Box 1 and Annex 1). Undoubtedly, the funding ceiling of \$200,000 and the two-year time horizon for implementation influenced the type and scale of projects proposed. Another important way in which the guidelines shaped the proposals was probably through the three sub-themes (see Box 1), which emphasized community-based approaches to indigenous knowledge, livelihood diversification and disaster risk management and excluded proposals on other approaches to adaptation such as medium and large-scale infrastructure. Some proposals echoed particular phrases used in the call for proposals, for example by emphasizing the potential for projects to deliver multiple benefits. Moreover, factors such as internet access, membership of information networks, prior participation and language skills likely influenced participation.

3: Climate Change Risks, Impacts and Adaptive Capacity

This section considers grant seekers' perceptions of climate change and its impacts. In particular, it focuses on: the types of climate change risks they addressed; sources of climate information; impacts of climate change; and factors limiting adaptive capacity.

3.1 Types of climate risks

Grant seekers saw climate change as a closely linked extension of problems associated with managing current climate variability. We coded the types of climate risks identified in the proposals, distinguishing between current climate variability and new risks clearly linked to climate change (as stated by proposal writers). Current climate risks included droughts, floods and large variations in temperature and precipitation. They were often described as serious local challenges, which are on a distinctly worsening trajectory because of ongoing climate change. Of the 346 semi-finalists, 24% sought to address a combination of new and current climate risks. Fifteen percent addressed current climate variability only, 19% addressed entirely new risks associated with climate change, and 43% were ambiguous (Table 2). The competition guidelines are mute on this point and are unlikely to have exerted a major influence on the data in Table 2. There were few instances of distinct thresholds for physical systems being crossed. Rather, the more common concern was of worsening trends in climate leading to serious socioeconomic impacts.

Table 2: Grant seekers' identification of new and current climate risks, by region

Climate risks identified	Latin America and the	Africa	South Asia	East Asia	Eastern Europe and	Multiple Countries	Middle East North	Total	Share of total

	Caribbean			Pacific	Central Asia		Africa		(%)
									n=346
Clearly new risk	23	11	15	9	4	2	0	64	18.5
Pre-existing/current risk	11	15	13	12	0	0	2	53	15.3
Both new and pre-existing	25	19	20	13	4	0	1	82	23.7
Unclear/ambiguous	45	36	28	22	7	7	2	147	42.5
Total number of proposals	104	81	76	56	15	9	5	346	100.0

Source: authors' coding of all DM semi-finalist proposals.

Grant seekers often identified multiple climate risks. Proposals listed up to five distinct climate-related risks, while the average was two risks. One proposal, for example, identified risks associated with: glacier melting; modification of coast morphology; changes in rainfall and drought patterns; and increased occurrence of wildfires, landslides and floods. When two or more risks were identified, they were often interrelated. Sometimes proposals set out to address multiple risks collectively, while at other times they merely invoked a multiplicity of climate risks as general justification for their grant proposal. Quite a few (around one-third) were ambiguous as to exactly what risks they sought to address.

A key question is: what dimensions of climate change were of most concern to the applicants? To answer this, we grouped the climate risks mentioned by the semi-finalists in their risk assessments. The competition guidelines did not limit the type and number of climate risks nor did they impose a common framework on how to describe these risks. Casual descriptions of worsening climate trends and their impacts on communities were found in many proposals with no reference to formal climate science. This is understandable: proposal writers were lay-people without climate science training coming from all around the world, but it made it necessary for us to devise pragmatic risk categories and use best judgment when matching risks mentioned in proposals to the categories. Many proposals listed multiple risks spanning more than one category; so those were coded in all applicable categories.

As Table 3 shows, water-related risks (e.g., drought, floods, unpredictable rains and glacier melt-off) emerged as the most common, storms were the second-most common type of risk. Other concerns were: heat, warming and heating-related fire risks; cold temperatures; climate variability and unpredictability and weather extremes. Curiously, land-related risks (e.g., erosion, desertification and landslides) constituted only a minor concern.

Table 3: Climate risks identified by grant seekers

Climate risk	Description	Share of total (%)
Storms	Storms; typhoons; hurricanes etc	21.1

Increasing temperatures and problems related to heat	Fires; heat episodes; general warming; other heat related	8.0
Cold-related	Cold; Snow; Freezing; Hail	4.3
Water-related	Drought/Less Rainfall; Floods; Floods and Drought; Glacier melt off; Erratic and Excessive Rainfall; Other water related	38.2
Land-related	Desertification; Landslides; Erosion; Avalanches; Other land related	2.9
Climate variability and increasing frequency of extreme weather events (not clearly in any other category)	Applicants referring to generally more unpredictable and extreme weather and changes in seasonal onset that could not be placed uniquely in any of the other categories	6.7
Crop Pests and Animal Diseases	Crop Pests; Animal Diseases	0.7
Human health	Diseases affecting humans	0.2
Not Clear	No direct link to climate change; Other	17.8
Total number of risks identified		578
Total number of semi-finalist proposals		346

Source: authors' coding of all DM semi-finalist proposals. Note: when proposals listed more than one climate risk we included all risks in the table. Some proposals did not clearly list any one specific climate risk and are included in the "not clear" category.

3.2 Sources of climate information

Proposals rarely relied on formal climate science and instead used informal local and indigenous sources of knowledge. Proposals often sought to address climate-related problems as they exist today based on the premise that those problems are bound to get worse. Rising uncertainty and variability of climate was explicitly addressed in some cases, for example, through early warning systems or use of indigenous climate knowledge.

Many grant seekers were pragmatic and used oral histories and community knowledge to describe worsening climate trends. There was often an intuitive scenario in droughts, floods, natural disasters, etc. were perceived to continue on a worsening trajectory into the future. 'Business as usual' was seen as becoming even more unsustainable in the future. The competition guidelines did not specify the

types of climate knowledge to be used, except for emphasizing indigenous knowledge and indigenous systems in sub-theme 1, spurring considerable interest in indigenous knowledge and adaptation.

It was often unclear how carefully grant seekers had researched formal or informal knowledge on climate trends, as no formal mechanism was used by the Marketplace to assess if stated perceptions of climate change were correct. However, one proposal (#4311) took a more formal approach to climate uncertainty. Grant seekers were aware of general climate studies and projections but did not have down-scaled data. They proposed participatory stakeholder engagement to map climate change risks and social vulnerability profiles. Adaptation actions would be designed based on the findings. This proposal was exceptional in its careful approach to identifying climate change impacts using participatory techniques.

Climate models, scenarios and projections were generally not featured, except in a few instances where a research institution was involved. Typically, the level of detail was a general perception of worsening weather patterns (more droughts or floods compared to earlier decades). As a reader of proposals, one sometimes had the impression that problem statements (“drought is a major problem in our community”) were reliable, but that trend and attribution statements (“drought is worsening due to climate change”) were anecdotal.

3.3 Adverse impacts

Reviewing the impacts of climate change described in Marketplace proposals, we found a systematic pattern of acute concerns over worsening rural vulnerability, indigenous survival and food security. Grant seekers described a wide range of adverse socioeconomic impacts of climate change: poverty; food insecurity; conflict; migration; environmental degradation; natural disasters; water shortages; spread of disease; etc. None described positive impacts. The most commonly described impacts were on natural resources and rural livelihoods dependent on agriculture or forest resources, and were often closely linked with concerns regarding poverty and food insecurity. A proposal from Ethiopia, for example, described how insufficient water, erratic rains and changing patterns of droughts cause food production to collapse and result in endemic food insecurity (proposal #5075). Migration and social dislocation triggered by worsening poverty were also major concerns. In contrast, relatively few grant seekers emphasized impacts on the built environment such as infrastructure and housing.

The stakes were higher for indigenous peoples, who expressed how their identity and cultural survival is threatened by climate change. Their proposals identified natural resource degradation and food insecurity, often in the high mountains or forests where they live, similar to those in the other sub-themes. But there were also deep concerns over their survival as distinct peoples with their own cultural identity and language. These concerns were often described as pre-existing issues magnified by climate change. For example, reduced productivity of traditional rural livelihoods due to climate change triggers migration from ancestral areas. Outside ancestral areas, indigenous culture is hard to sustain because of discrimination and social exclusion. They also expressed pride in traditional knowledge, such as using weather patterns to time planting and harvesting, and were eager to harness it for adaptation purposes.

This would often require investments in making indigenous knowledge useful, for example by training the younger generation.

Health issues emerged in proposals in various ways. In a narrow sense, health and disease risk did not figure prominently among direct climate risks. All combined, human, crop, and livestock health and disease constituted 1% of identified physical climate risks. Yet, in a broader sense, some 83 proposals (24% of all semi-finalists) discussed health, nutrition and food security issues as part of the problem statements or as adverse impacts resulting from climate change. For example, many proposals emphasized declining standards of nutrition as a consequence of declining crop yields and deterioration of rural livelihoods. Others emphasized how HIV/AIDS, diarrhea and other diseases undermine community resilience and adaptive capacity.

3.4 Factors that weaken adaptive capacity

Grant seekers almost invariably emphasized how the interplay of climate shocks and development challenges heighten community vulnerability. They also described how poverty, environmental degradation and population growth constrain and weaken communities' adaptive capacity. This echoes much of the academic literature (e.g., Adger, 2006; Reid and Vogel, 2006; Smit and Wandel, 2006; Eriksen et al, 2007; Tschakert, 2007). The factors that weaken communities' adaptive capacity depended on the local contexts. The most common were (in decreasing order of frequency): (1) Lack of assets and human development, including poverty and marginalization, lack of financial resources, lack of education, illiteracy, marginalization, low socioeconomic status; (2) Environmental problems including deforestation, land clearing, unsustainable agricultural and natural resource management practices; and (3) Population growth.

Sometimes, addressing structural inequalities such as tenure insecurity is necessary for building adaptive capacity. This was reflected most clearly in the indigenous peoples' sub-theme and less so in proposals dealing with disaster risk management. There was a view among some grant seekers and assessors that, for indigenous peoples, adaptation often needed to include land ownership issues. This is because secure legal title to land and housing, something which indigenous peoples often lack, is required for successful adaptation. Likewise, issues related to governance and collective voices were raised as integral to adaptation for indigenous communities.

4: Adaptation Responses

As donors and governments gear up for adaptation, there is a great deal of interest in understanding the relationship between adaptation and development and in identifying the precise goals of adaptation—for example, should it address current climate variability or projected future impacts? Other questions relate to: choice of priority sectors for adaptation; target groups; scale of interventions (local or national); and timeframe (whether near-term or long-term climate risks are addressed). Marketplace proposals yield interesting perspectives on these questions.

4.1 What is adaptation?

Proposals conceptualized adaptation as addressing local development challenges holistically. They did not often distinguish sharply with the challenges of overcoming poverty and underdevelopment, environmental and resource degradation, and increasing climate variability. Proposals addressed these as interconnected challenges in need of being addressed locally, and suggested incremental steps to build adaptive capacity and community resilience. Differences between adaptation and “development as usual” lay in the grant seekers’ emphasis on protecting communities, more than, say, new sources of growth and livelihoods.

Grant seekers conveyed a sense of synergy between adaptation and local development. For example, livelihoods projects sought to both raise the productivity of agriculture and to climate-proof it. One proposal, for example, linked rainwater harvesting with business development and income generation for women, thereby tackling both the climate and gender agendas. Harnessing indigenous knowledge for adaptation (e.g., early warning of extreme climate events or flood-prone housing construction methods) was seen as congruent with revitalization of cultural identity. Perhaps the most obvious synergy was between adaptation to extreme climate events and disaster risk management. Both call for early warning systems, preparedness and reinforcement of basic infrastructure, and are often identical for all practical purposes. At no time did the authors encounter a real or perceived conflict between adaptation and development goals.

McGray *et al.* (2007) frame adaptation as a continuum, ranging from pure development on the one hand to explicit adaptation measures on the other. At one end of the continuum, the most vulnerability-oriented adaptation efforts overlap almost completely with traditional development practice, where activities take little or no account of specific impacts associated with climate change. At the opposite end, specialized ‘impact-driven’ activities target distinct climate change impacts and fall outside the realm of development as we know it (see also Ribot, 2010). Reviewing the substance in the proposals offers two relevant insights for this discussion.² First, there was little buy-in for an ‘impacts-driven’ approach whereby adaptation responds to the projected future impacts of climate change. Instead, proposals were vulnerability-oriented in that they aimed to broadly reduce vulnerability to a multiplicity of new and old risks and actively sought developmental co-benefits. Proposals were ‘no regrets’, yielding benefits both in today’s climate and in a range of future climates (Heltberg, Siegel, and Jorgensen, 2009). Second, proposals focused on incremental adjustments to climate-proof current livelihoods; they did not seek to move people to new areas or livelihoods. This is a potentially important shortcoming if climate change impacts are so large as to render incremental adjustments insufficient.

4.2 Judgment calls required

The competition guidelines defined adaptation as “efforts to adjust to ongoing and potential effects of climate change” and emphasized building resilience to climate variability and change. Given the DM’s focus on innovation, innovative solutions were, of course, a major factor.

² The competition guidelines did not discuss these issues and are unlikely to have influenced the data.

Sometimes a judgment call was required to determine if proposals could be considered adaptation. For example, some livelihood diversification projects emphasized poverty and environmental problems, but omitted a clear climate change justification. This sparked discussion among assessors and jury members on how to draw the line between adaptation and development and who should bear the burden of proof in justifying whether a development project was also addressing adaptation. Some assessors and jury members argued that grant seekers must provide explicit justification of why and how their project addresses adaptation in order to be considered. Others preferred to apply sound judgment: if the project offered an innovative way forward to diversify out of a livelihood known to be at risk from climate change, it would be considered adaptation.

4.3 Types of adaptation

Most grant seekers proposed several adaptation actions (the average was three). A proposal might, for example, contain changes in farm practices, value chain improvements and capacity building, usually for the same target beneficiary group. Ninety percent of semi-finalists proposed more than one adaptation action and more than two-thirds proposed more than two actions.

The proposed adaptation actions were coded into two broad categories: 'hard adaptation' (defined here as local infrastructure and other physical structures, construction techniques, technologies, infrastructure, etc) and 'soft adaptation' (e.g. livelihoods diversification, training, community mobilization, capacity building, awareness raising, data systems, etc). When a proposal contained more than one discrete action, each one was coded separately with no attempt to control for the relative importance of each (Table 4)

Table 4: Adaptation type by stage in application process

Type of Adaptation Action Proposed	Semi-Finalists	
	No. of proposals	Share of total (%) n=346
Soft adaptation (capacity building, livelihood diversification, social policy, etc.)	138	39.9
Hard adaptation (infrastructure, housing, etc.)	14	4.0
Mixed adaptation (hard and soft)	194	56.1
Total	346	100.0

Source: authors' coding of all DM semi-finalist proposals.

Approximately 40% of all semi-finalists proposed soft adaptation actions, 4% proposed hard actions, and 56% a mix of soft and hard adaptation. Hard actions were mostly proposed in combination with one or more soft actions, such as training or capacity building. For example, a proposal from Cambodia aimed to build floating housing that could adjust to changing water levels (a hard action) combined with entrepreneurial training (soft), as well as green energy production and hydroponic fish production. Disaster early warning systems combined with training in using the systems is another example. However, many proposals contained only soft adaptation measures, such as ways to harness indigenous knowledge.

4.4 Livelihoods, ecosystems and infrastructure

Apart from capacity building, adaptation ideas put forward most often were the following, in declining order of importance (see Table 5 and Table 6): livelihood diversification, ecosystem management and regeneration, local small-scale infrastructure, disaster risk management, providing access to various data and warning systems, social protection and micro-finance.

Rural livelihoods, ecosystems and local small-scale infrastructure were the most common ideas and may reflect the topics that many grant seeking organizations, especially NGOs, already work on. Livelihood diversification focused on crops, livestock, fisheries, non-food products and household energy. Ecosystem-based adaptation projects often argued that existing damages to local natural resources were harmful to livelihoods and were worsening due to climate change. In response, they sought to restore local forests, mangroves and other ecosystems. Disaster risk management proposals often advocated early warning systems and more resistant housing and infrastructure (this mirrors two of the three bullets in the competition guidelines' description of sub-theme 3, see Box 1).

Social protection and micro-finance did not receive as much attention as expected, despite explicit references in the competition guidelines. When micro-finance was proposed, it was often done so as a way to finance livelihood-related investments more than as stand-alone adaptation. Very few proposed safety nets or conflict resolution mechanisms.

Table 5: Types of soft adaptation in proposals

Type of Adaptation Action Proposed	Semi-Finalists	
	No. of proposals	Share of total (%) n=1,077
Livelihood diversification	155	14.4
Ecosystem restoration	134	12.4
Other	104	9.7
Disaster Risk Reduction	61	5.7
Social protection and micro-finance	48	4.5
Assisted migration	3	0.3
Data systems	32	3.0
Capacity building, training	325	30.2
Total No. of Soft Adaptation Actions Proposed	862	80.0

Source: authors' coding of all DM semi-finalist proposals. *Total indicates the sum of all adaptation actions, both hard and soft.

Table 6: Types of hard adaptation in proposals

Hard Adaptation Actions Proposed	Semi-Finalists	
	No. of proposals	Share of total (%) n=1,077
Infrastructure development	123	11.4
Housing	22	2.0
Unclear/other forms of hard adaptation	70	6.5
Total	215	20.0

Source: as above.

4.5 Migration

Migration also played a surprisingly small role in the proposals, other than as something to be deterred via local interventions. Marketplace participants did not attempt to assist or leverage migration as an

adaptation response. This is in contrast to the literature’s recognition of spontaneous migration as a common response to vulnerability associated with climate change (World Bank, 2009, pp. 108-111; Raleigh and Jordan, 2010). The bulk of proposals aimed to diversify rural livelihoods as a means of deterring migration in the face of climate change. Other proposals sought to protect against increasing risk of natural disasters, again with a view to defend areas at risk and deter migration.

4.6 Only near-term actions proposed

Marketplace proposals invariably contained near-term actions that would deliver benefits within the two-year implementation period (an explicit requirement of the Marketplace). They would help communities respond to existing climate and development challenges in the short term, often with an implicit understanding that this would constitute a first step toward long-term adaptation. Only occasionally were there aspirations to continue and scale up efforts in order to deliver more long-term benefits and apply approaches in wider geographic areas, despite the fact that the guidelines announced that one of the assessment criteria would be sustainability and growth potential of impacts.

The literature also distinguishes between proactive and reactive adaptation (Smit and Skinner, 2002). Proactive (or ex-ante) adaptation takes place before events (e.g., early warning systems), and reactive (or ex-post) after events (e.g., humanitarian assistance to people affected by disasters). This distinction is not that clear-cut in practice. As mentioned earlier, Marketplace proposals were formulated in response to current climate variability with already observed adverse impacts. Still, they cannot be described as reactive. They focused on adjusting livelihoods, knowledge systems and infrastructure to reduce the impacts of regularly occurring events. The dynamic is better described as event-response-event, which has been described as “co-evolution” of problems and responses in a dynamic setting by Shalizi and Lecocq (2009).

4.7 Focus of projects

Rural areas were dominant in proposals, even though competition guidelines were neutral between urban and rural areas (Table 7). A majority of those that did cover urban areas were in the disaster risk-reduction sub-theme. In other words, urban proposals were few and mostly focused on natural disaster risks, while rural proposals were more numerous and addressed a wide range of risks.

Table 7: Geographic scope: urban vs. rural

Geographic Scope	Semi-Finalists	
	No. of proposals	Share of total (%) n=346
Rural	227	65.6
Urban	26	7.5
Both urban and rural	16	4.6
Unclear	77	22.3

Total	346	100.0
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Source: authors' coding of all DM semi-finalist proposals.

Coastal areas, mountains, and forests were the types of areas most commonly targeted by rural proposals (Table 8). Proposals in coastal areas focused on mangroves, saltwater intrusion and protection from storm risks. Proposals in mountainous areas focused on natural disasters, triggered by flooding and extreme temperatures, vulnerable livelihoods and indigenous knowledge. Proposals in forest areas focused on indigenous knowledge and livelihood development for indigenous communities. Although drought was often mentioned as a climate risk, drylands did not receive much focus.

Table 8: Geographic scope of rural proposals

Geographic scope of rural proposals	Semi-Finalists	
	No. of proposals	Share of total (%) n=346
Coastal	45	13.0
Mountain	44	12.7
Forest	32	9.2
Arid drylands	21	6.0
Highlands	6	1.7
Grasslands	4	1.2
Other, not clear or not mentioned	75	21.7
Total	227	65.6

Source: authors' coding of all DM semi-finalist proposals.

Most proposals sought to cover a relatively small area, often a few villages or parts of a district, and counted their intended beneficiaries in the lower thousands. Very few proposals set out to promote adaptation at national or international levels, although some did seek to influence national or local policies as a secondary objective. Half of the semi-finalists aimed to cover a district (fully or partly), while 28 percent sought to cover a small area, typically a few villages, (Table 9). As a result, most projects had fewer than 5,000 intended beneficiaries (self-estimated by participants), with many even below 1,000 (Table 10). The cost per intended beneficiary usually ranged from \$20 to \$200. The relatively small scale of many projects may reflect the budget ceiling (\$200,000) as well as the types of organizations applying.

Table 9: Geographic scope of proposed projects

Geographic Scope	No. of proposals	Share of total (%) n=346
District or province, similar	175	50.6
Very localized (below district, a few villages)	97	28.0
Regional within country	31	9.0
National scope	16	4.6

International, cross border	11	3.2
Regional	2	0.6
Not clear/other	14	4.0
Grand Total	346	100.0

Source: authors' coding of all DM semi-finalist proposals.

Table 10: Intended number of beneficiaries

Intended No. of Beneficiaries	Semi-Finalists	
	No. of proposals	Share of total (%)
1,000 or less	136	39.3
Between 1,000 - 5,000	89	25.7
Between 5,000-10,000	19	5.5
Between 10,000 to 50,000	30	8.7
More than 50,000	28	8.1
Not clear	44	12.7

Source: authors' coding of all DM semi-finalist proposals.

4.8 Scaling up

There were few self-propelling business models for reaching a wider geographic scale or achieving a longer duration of project activities, despite the guidelines asking for scalability and growth potential. Grant seekers relied on donor funding and seldom had a business model that would allow them to generate revenue to grow their operations. While some projects did set out to generate revenue, for example by marketing a new product, that revenue would usually go fully or partly to project beneficiaries and not to the implementing organizations. Rarely did projects devise ways to generate the funds necessary to scale up or to find other paths toward financial viability. The sections in the proposals that described scaling up potential tended to be weak and there were rarely clear plans for how to continue activities beyond the two-year period financed by the Marketplace (Table 11). Admittedly, Marketplace guidelines focused on covering the poorest, not the easiest market segment for revenue generation. If donors make concessional financing available for adaptation purposes, projects need not generate revenue in order to be sustainable, although capacity and other constraints remain (see Ayers and Huq, 2009 for a recent overview of development assistance for adaptation). One of the lessons from the DM is that while small-scale adaptation projects may be well-suited at reaching the most vulnerable with interventions designed to increase resilience, there are capacity constraints that need to be overcome.

Many grant seekers missed opportunities for international partnerships, which could potentially have helped them scale up via links to knowledge and funding networks. Most partnerships were between organizations from the same country. Sixty percent of semi-finalists applied in partnership with another organization. Of these, the majority (174 cases) proposed South-South partnerships. Only 11 were international, while 163 were same country partners. 41 cases were North-South and 12 cases were South-North partnerships (Table 12).

There were also few attempts to use partnerships with governments or larger organizations in order to foster sustainability and scaling up. NGOs and civil society organizations (CSOs) were the most common type of partner just as they were the most common type of applicant (Table 13). Eight percent partnered with government and only one percent of primary grant seekers were government agencies. Primary applicants from academic institutions were the most likely to have a government partner, while indigenous applicants were the least likely. Government partnerships were divided equally between national and local government (Table 14). But even projects with a national government partner focused on the local scale as none of the 12 grant seekers that partnered with national government had ambitions for national-scale coverage.

Table 11: Revenue generation plans of projects

Does the project generate revenue?	Semi-Finalists	
	No. of proposals	Share of total (%) n=346
Revenue generated for grant seekers	40	11.6
Revenue generated for project beneficiaries	69	19.9
Revenue generated for both grant seekers and project beneficiaries	82	23.7
Reliant on donor and/or government funding	112	32.4
Not clear/other	43	12.4

Source: authors' coding of all DM semi-finalist proposals.

Table 12: International partnerships

Type of Partnership	Semi-Finalists	
	No. of grant seekers	Share of total (%); n=346
South-South Partnerships	174	50.3
North-South Partnership	41	11.8
South-North Partnership	12	3.5
All partnerships	227	65.6
No partnership*	119	34.4
Total	346	100.0

Source: Authors' analysis based on DM data base. Note: The apparent discrepancy between this table and Table 13 is due to the fact that multiple grant seekers not required to engage in a partnership did so anyway.

Table 13: Type of partner organization sought by semi-finalists

Partner Organization Type	Semi-Finalists	
	No. of grant seekers	Share of total (%) n=346
Non-Governmental Organization (NGO) or other civil society organization	122	35.3
Academia or Research Organization	29	8.4
Government	26	7.5
Private Business	22	6.4

Development Agency (bilateral or multilateral) or Foundation	10	2.9
No Partnership Required*	137	39.6
Total	346	100.0

Source: Authors' analysis based on DM data base.

Table 14: Grant seekers interested in partnering with government (semi-finalist stage)

Grant seekers interested in collaborating with government	No. of grant seekers	Share of total (%) n=346
Academic Institutions	10	2.9
Development Agencies	4	1.2
NGO or CSO	8	2.3
Private Business	2	0.6
Registered IP Organization	1	0.3
Total	25	7.5
Level of government with which grant seekers partner	No. of grant seekers	Share of total (%) n=346
National	12	3.5
Local (State, District/Municipal/Provincial)	13	3.8
Total	25	7.5

Source: Authors' analysis based on DM data base.

5: Implications for Adaptation Support

From the Marketplace lessons, what implications can be drawn for donors and practitioners of adaptation? The data does not permit a cost-benefit comparison of community-based adaptation versus other adaptation options such as those focused on infrastructure. Such comparison would anyway be complicated by the differences in objectives, with community-based adaptation focused on general resilience and other adaptation options focused on protecting GDP or infrastructure. The purpose of reflecting on the evidence presented above is to contribute to current debates about the role and funding of community-based adaptation. Broadly speaking, community-based adaptation should be designed to emphasize its strengths in local grounding and synergies with development, help connect local initiatives to knowledge and funding at higher levels, and use complementary approaches to address policy issues. Each of these sets of implications are examined below.

5.1 Harnessing the strengths of community-based approaches

This review identified grounding in local socioeconomic and climatic realities and close synergies between adaptation and development as some of the core strengths of Marketplace proposals; funding regimes for adaptation should seek to promote these strengths. Small community-based projects are a viable means to support adaptation. The Marketplace demonstrated the imminent possibility of eliciting many projects in most regions of the world, and donors will have no problem finding suppliers. Many CSOs are ready to supply such projects, particularly in rural areas. However, the Middle East, North

Africa and Central Asia and, to a lesser extent, urban areas may not be adequately covered unless capacity is built among potential providers.

Support for adaptation should include projects that address both climate and non-climate/development challenges, and avoid delinking adaptation from development. Adaptation funding regimes should allow projects to focus on managing current climate variability and extreme events. Sharp distinctions between adaptation and development should be avoided by blending adaptation and development funding. Projects should include attention to building adaptive capacity by addressing non-climatic socioeconomic conditions.

Project design requires understanding community adaptive capacity and identifying effective ways to bolster it. The focus on vulnerability reduction calls for solid grounding of projects in local realities, involvement of communities to determine and address local causes of vulnerability, and exploring synergies with development. In this way, projects can leverage the strength of community-based approaches.

Addressing long-standing inequalities and issues such as tenure security may be important for adaptation, but will not always succeed because of the difficulties in resolving these issues. Development agencies therefore need realism when deciding upon concrete measures that can be taken to improve community resilience. Synergies with development can often be exploited by incorporating adaptation elements into other activities. Many ongoing projects in sectors such as water, rural development, livelihoods, natural resource management and environmental protection will often be able to add elements designed to foster adaptive capacity. Building on ongoing projects has the added advantage of avoiding further fragmentation of effort.

The fact that many projects look much like 'traditional' development projects should not be considered a drawback, as long as climate vulnerability is addressed. Many disaster risk reduction projects, for example, might have been designed nearly identical in the absence of climate change although the processes used to assess risks and design interventions in many cases would be more participatory under community-based adaptation approaches. Much the same applies to other sectors, such as water and rural development.

Adaptation sponsors should neither expect nor demand close anchoring in formal climate science, particularly downscaled long-term projections since proponents of such projects are unlikely to possess the required expertise and downscaled projections typically are unavailable or have too coarse resolution. From the perspective of many Marketplace proposals, the current emphasis in much of the adaptation community on elaborate modeling of downscaled climate impacts seems misplaced. The issue is not so much whether projects address a scientifically 'correct' climate risk, but whether there is a heightened vulnerability due to climate change and whether projects adequately address this. There is also likely to be a problem of mismatched scales between local projects and relatively coarse projections.

Affected communities often have a strong sense of the most pressing climate risks affecting their security and livelihoods. Climate vulnerability can be identified via a community risk assessment as

proposed by Van Aalst, Cannon and Burton (2008). Methods can be developed to assess how well community perceptions correlate with formal climate science predictions.

Project quality must remain a top priority even as the world moves to rapidly gear up adaptation. Established quality standards are applicable when assessing adaptation projects and donors may want to define carefully what aspects of project quality and innovation they are aiming to support. Given the limited experience with adaptation, a case can be made that building a solid body of experience with adaptation projects in a range of sectors and countries, backed up by adequate monitoring and evaluation, is more important than striving for innovation in each and every project.

5.2 Connecting local initiatives to knowledge and funding at higher levels

Concerns over how well community-based adaptation approaches can be scaled up to reach wider coverage are legitimate but need to be tempered by recognizing the drawbacks of alternative top-down approaches, namely ignoring variations in local needs, realities and knowledge. Community-based adaptation could be bolstered by mechanisms that connect it to knowledge and funding at national or international levels.

Over the longer run, and when attempting to reach a larger scale, it will become increasingly important that near-term actions address key long-term risks projected by formal climate science. This is not to say that planning of community-based adaptation ought to be driven primarily by climate science, but that mechanisms should be found to ensure that the totality of adaptation efforts offers adequate protection against major projected impacts of climate change. Funding networks should help replication and scaling up. Community-based organizations may need support to reach scale while maintaining local grounding. To address the small scale and short duration of projects, donors and governments may consider mechanisms for aggregating and scaling up localized approaches. Community-driven development platforms seem well-suited to offer such mechanisms.

Community-driven development is an approach that takes local participatory development to scale and could be considered. It leverages local knowledge by involving communities in the planning and execution of small, local development projects while relying on a central agency to address the challenge of funding and supervising technical and fiduciary aspects. Many community-driven projects already work on rural livelihoods, natural resource management, and natural disaster preparedness and recovery, and are therefore well-placed to scale up community-based adaptation. The lesson of the Marketplace is that community-based adaptation would integrate well with the existing community-driven development umbrella.

5.3 Using complementary approaches to address policy

Project-based interventions cannot stand alone as a country's only approach to promoting adaptation. Many policies, programs and public goods of importance to adaptation are best promoted at the national or international levels. For instance, social protection and micro-finance for adaptation are often best promoted at the national level, and many times can be adjusted to incorporate climate objectives—for example, expansion of cash transfers into areas affected by adverse weather events or

micro-insurance against drought. Adaptation also relies on public goods that can best be provided at the national or international level. This includes breeding of crop and livestock and forecasting of weather and climate. Moreover, policies that foster maladaptation must also be identified and addressed, such as water subsidies or trade policies that promote water-intensive crops in arid climates. Tenure insecurity undermines incentives to make adaptive investments in land, while lack of education hinders adaptation. National policy reform is often the best way to address policies that foster maladaptation.

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References

- Adger, W. Neil, Suraje Dessai, Marisa Goulden, Mike Hulme, Irene Lorenzoni, Donald R. Nelson, Lars Otto Naess, Johanna Wolf and Anita Wreford, 2009. Are there social limits to adaptation to climate change? *Climatic Change* (93), pp. 335–354.
- Adger, W. Neil, 2006. Vulnerability. *Global Environmental Change*, (16), 268-281.
- Agrawal, Arun, and Nicolas Perrin, 2008. Climate Adaptation, Local Institutions and Rural Livelihoods, *University of Michigan International Forestry Resources and Institutions Program Working Paper # W08I-6*.
- Ayers, Jessica M., and Saleemul Huq, 2009. Supporting Adaptation to Climate Change: What Role for Official Development Assistance? *Development Policy Review*, 27(6), pp. 675-692.
- Eriksen, Siri, Richard J.T. Klein, Kirsten Ulrud, Lars Otto Naess and Karen O'Brien, 2007. Climate change adaptation and poverty reduction: key interactions and critical measures. *GECHS Report* (1). Department of Sociology and Human Geography, University of Oslo. Oslo, Norway.
- Gillespie, Stuart, 2004. Scaling up community-driven development: a synthesis of experience, *FCND Discussion Paper 181*. Washington, DC: International Food Policy Research Institute.
- Heltberg, Rasmus, Paul B. Siegel and Steen L. Jorgensen, 2009. Addressing Human Vulnerability to Climate Change: Toward a 'No Regrets' Approach. *Global Environmental Change* (19), pp. 89-99.
- Heltberg, Rasmus, Paul B. Siegel and Steen L. Jorgensen, 2010. Social Policies for Adaptation to Climate Change. In: Robin Mearns and Andrew Norton, eds. *Social Dimensions of Climate Change: Equity and Vulnerability in a Warming World*. New Frontiers of Social Policy. Washington, DC: The World Bank.
- Huq, Saleemul and Hannah Reid (2004), Mainstreaming Adaptation in Development, *IDS Bulletin* 35(3), pp.15-21.
- International Institute for Sustainable Development, 2010. *Community-Based Adaptation to Climate Change Bulletin: A Summary of the Fourth International Conference on Community-Based Adaptation to Climate Change*. Published by IISD in collaboration with IIED, 135 (3), 2 March 2010. Available at: <http://www.iisd.ca/ymb/climate/cba4/>
- Heather McGray, Rob Bradley, Anne Hammill, with E. Lisa Schipper and Jo-Ellen Parry, 2007. *Weathering the Storm: Options for Framing Adaptation and Development*. World Resources Institute. Available at: <http://www.wri.org/publication/weathering-the-storm>.
- Parry, Martin, Osvaldo Canziani, Jean Palutikof, Paul van der Linden, and Clair Hanson (eds), 2007. *Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge: [Cambridge University Press](http://www.cambridge.org).
- Raleigh, Clionadh, and Lisa Jordan, 2010. Climate change and migration: emerging patterns in the developing world. In: Robin Mearns and Andrew Norton, eds. *Social Dimensions of Climate Change: Equity and Vulnerability in a Warming World*., New Frontiers of Social Policy, Washington, DC: The World Bank.
- Reid, Hannah and Saleemul Huq, 2007, Community-Based Adaptation: A Vital Approach to the Threat Climate Change Poses to the Poor, IIED Briefing. Reid, P., and Coleen Vogel, 2006. Living and responding to multiple stressors in South Africa—glimpses from KwaZulu-Natal. *Global Environmental Change*, (16), pp. 195–206.

- Ribot, Jesse C., 2010. Vulnerability does not just come from the sky: framing grounded pro-poor cross-scale climate policy. In: Robin Mearns and Andrew Norton, eds. *Social Dimensions of Climate Change: Equity and Vulnerability in a Warming World*. New Frontiers of Social Policy, Washington, DC: The World Bank.
- Schipper, Lisa F., 2007. Climate Change Adaptation and Development: Exploring the Linkages. *Tyndall Centre for Climate Change Research Working Paper 107*.
- Shalizi, Zmarak, and Franck Lecocq, 2009. To Mitigate or to Adapt: Is that the Question? Observations on an Appropriate Response to the Climate Change Challenge to Development Strategies. *The World Bank Research Observer*. doi;10.1093/wbro/lkp012.
- Smit, Barry, and Johanna Wandel, 2006. Adaptation, adaptive capacity and vulnerability. *Global Environmental Change*, (16), pp. 282-292.
- Smit, Barry, and Mark W. Skinner, 2002. Adaptation options in agriculture to climate change: a typology, *Mitigation and Adaptation Strategies for Global Change*, 7 (1), pp. 1381-2386.
- Sperling, Frank, with Corinne Validivia, Roberto Quiroz, Roberto Valdivia, Lenkiza Angulo, Anton Seimon and Ian Noble, 2008. Transitioning to Climate Resilient Development: Perspectives from Communities in Peru, *World Bank Environment Department Papers 115*.
- Stern, Nicholas, 2006. *The Economics of Climate Change: The Stern Review*. Cambridge, UK: Cambridge University Press.
- Tanner, Thomas and Tom Mitchell, 2008. [Introduction: Building the Case for Pro-Poor Adaptation](#). *IDS Bulletin*, 39 (4), pp. 1-5.
- Tschakert Petra, 2007. Views from the vulnerable: Perceptions on climatic and other stressors in the Sahel. *Global Environmental Change*, (17), pp. 381-396.
- van Aalst, Maarten, Terry Cannon and Ian Burton, 2008. Community level adaptation to climate change: The potential role of participatory community risk assessment. [Global Environmental Change](#), 18 (1), pp. 165-179.
- Vernon, Tamsin, 2008. The Economic Case for Pro-Poor Adaptation: What Do We Know? *IDS Bulletin* 39 (4), pp. 32-41.
- World Bank, 2009. *World Development Report 2010: Development and Climate Change*. Washington, DC: The World Bank.

Annex 1: Summary of DM2009 eligibility and assessment criteria

Eligibility criteria:

Sub-Theme	Each project idea submitted to the competition was required to focus on one of the three sub-themes. Applicants were allowed to submit proposals to more than one sub-theme provided the proposals were markedly distinct.
On-the-Ground Results	The proposals were required to focus on a group of beneficiaries that would be impacted directly by the project. The DM would not fund projects where academia is the primary beneficiary of the project.
Organization Type	Organizations eligible to apply included non-governmental organizations (NGOs), other civil society organizations (e.g., community associations, faith-based groups, labor unions, etc.), private foundations, development and government agencies, academia and the private sector, providing each is a legally registered in a member country of the World Bank, has an established bank account, and is able to receive international financial contributions. For Sub-theme 1, applicants must be from Indigenous Peoples (IP) communities, IP not-for profit and non-governmental organizations, and IP research centers or universities located in the country of implementation.
Partner Requirements	For sub-themes 2 and 3, organizations based in the country of implementation could apply without a partner. Those located outside of the country of implementation, were required to select a partner based in the country of implementation. Both the partners could not be private businesses, academic institutions, or local, national or regional government institutions. For sub-theme 1, because the World Bank can only enter into a Grant Agreement with a legally registered entity, an IP community or IP group that does not have legal representation could designate a legally registered organization to apply on its behalf.
Implementation Time Frame	Winners have two years to implement their project upon initial fund disbursement.
Past winners	Organizations that are active in World Bank supported programs and past DM winners can apply if their proposal is substantially different from the one that has already received World Bank / DM funding.
Award Size	Requests for DM funding must not be greater than US\$200,000 or less than US\$50,000.
Language	Proposals for sub-theme 1 could be submitted in English, Spanish or French. For sub-themes 2 and 3, proposals were required to be submitted in English. Irrespective of sub-theme, all finalists were offered translation services on an “as needed” basis to comply with the DM requirement that all full proposals are submitted in English to the jury panel selecting the winning proposals.

Assessment criteria:

Innovation	Innovation is a major differentiating element of DM competitions compared to other development grant programs. All proposals selected for funding should go beyond standard climate change adaption development projects. The proposal will be assessed according to how it differs from existing approaches. Note that transferring an approach to solve a common problem from one beneficiary group or from one geographic area to another is not considered innovative by the DM Program
Objective & Measuring Results	The project should have clear and measurable results that will have a direct impact on improving individuals’ or communities’ ability to adapt to climate change. The expected results / outcome of the proposed project should be achievable within the timeframe of implementation. Assessors will also examine the quality of proposed indicators of the outcomes/results and review method(s) used to measure project success.
Project Design & Organizational Capacity	The project should have a realistic plan with concrete steps/activities to achieve the project objective within the two-year or less span of implementation. The organization’s, and if applicable, its partner’s capacity to implement the project will be assessed.
Sustainability of Impact	Assessors will assess the characteristics of the project that, if successful, will help ensure that its results and development impacts are sustainable after DM funding. Depending on the project design, the characteristics could involve financial and/or organizational sustainability. For organizational sustainability, proposals should describe the factors related to your organization’s capacity and the capacity of your partner organization to sustain the results of the project. For financial sustainability, the strategy to become self-perpetuating will differ depending on the type of project: <ul style="list-style-type: none"> • For revenue-generating projects, a realistic timeframe and pathway to reach the point of revenue breakeven should be included. • For projects that are not generating revenue, the proposal should provide a realistic strategy for sustaining the project’s results after completion of DM support from sources such as other donors, private foundations, and government agencies, etc.
Growth potential	DM places a premium on projects with potential for large-scale development impact. Assessors will explore possible constraints as well as the opportunities for scaling up and replicating. Replicability is when a project can be adopted by other groups. Scalability is when a project can be expanded within a geographic area to benefit more people in the project area.