ideas to impact.

A ROLE FOR INNOVATION PRIZES TO SUPPORT ADAPTATION TO CLIMATE CHANGE?

AN ANALYSIS OF CHALLENGES, OPPORTUNITIES AND CONDITIONS IN A DEVELOPMENT CONTEXT

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This document is part of a suite of four papers (a guide and three thematic papers) that capture the learning from the first year of the Ideas to Impact programme. More specifically:

Innovation prizes: a guide for use in a developing country context identifies the stages required to define whether an innovation prize is a suitable instrument to help address a given development problem;

SEE OUR **GUIDE**

Can innovation prizes help address water and sanitation challenges? Introduces the concept of innovation prizes and presents a number of areas where they may have application;

SEE OUR **WASH** REPORT

Addressing problems in energy access through the use of Innovation prizes shows how the guide was applied in a specific context and sets out the challenges faced in using innovation prizes to support improved energy access; and

SEE OUR **ENERGY ACCESS** REPORT

A role for innovation prizes to support adaptation to climate change? An analysis of challenges, opportunities and conditions takes a theoretical approach to understanding the effects innovation prizes might have in the climate change adaptation field.

SEE OUR **CLIMATE CHANGE ADAPTATION** REPORT

Where text in this paper makes reference to one of the other papers in this suite, the relevant text will be highlighted and the icon representing the cross-referenced paper will appear in the margin.

At the time of publishing, Ideas to Impact is undertaking the detailed design of five diverse innovation prizes. The team expects to document further findings from this process through follow-up publications that will:

- Extend the Guide to include detailed design;
- Share further learning from experiences across the three themes (thematic papers currently go only as far as Stage 2 of the Guide in their analysis); and
- Provide guidance on how to establish monitoring and evaluation frameworks for innovation prizes.

Visit the Ideas to Impact website **www.ideastoimpact.net** and sign up to the newsletter to receive updates.

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Design: www.stevendickie.com/design

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EXECUTIVE SUMMARY

The aim of this paper is to examine the role of innovation prizes in supporting adaptation to climate change in the context of development, in view of two parallel trends: First, a growing interest in applying innovation prizes to international development, and second, the increasing focus on ensuring that adaptation funding and implementation are achieving the goals of supporting the poorest and most vulnerable groups. We analyse innovation prizes – their origin, recent trends, and adaptation experiences–against a pathways approach as well as characteristics of successful adaptation, in order to examine whether and under what conditions innovation prizes can play a positive role in supporting adaptation. The study finds that while there is significant overlap in goals and mechanisms between innovation prizes and adaptation, key challenges remain in reconciling tensions that could exclude vulnerable or marginal groups from competing for, or benefiting from, innovation prizes. The paper proposes a set of actions to explore the possibilities of overcoming the challenges, which will be tested through two innovation prizes for improving the usability of climate information (Kenya) and scaling up innovation capabilities (Nepal).

1

INTRODUCTION

Prizes and awards have become increasingly popular over recent years, expanding into new areas and new types of prizes. There may be several reasons for this increased interest, such as a growing focus on private-sector engagement and corporate social responsibility (CSR), and an increasing prominence of payment by results (PbR)-related concepts among many donor agencies and other funding organisations.

ENERGY ACCESS
Section 1
For more on the recent use of innovation prizes.

One of these 'new' areas is adaptation to climate change, where prizes to date have supported community based adaptation, new technologies for adaptation, and new solutions to promote resilience. This application of prizes coincides with a growing focus on, on the one hand, understanding how funding for adaptation, which is expected to grow significantly over coming years, can better target for the poorest and most vulnerable groups, and on the other, an increased effort to involve the private sector in adaptation (Pauw, 2014), which has so far played a relatively minor role in adaptation as compared to mitigation and low carbon development.

To date, most prizes that have been applied to adaptation are *recognition prizes*, i.e. prizes that rewards past achievement. By contrast, we here focus on *innovation prizes*, which set out to incentivise new action. The rationale for applying innovation prizes to adaptation includes that they may be able to help unblock challenges in ways that grants cannot do through reaching out to new groups, encouraging partnerships, and avoiding the risk associated with grant schemes of picking winners in **advance**. For the most part, innovation prizes are seen as a potential mechanism to complement grant-based funding, but are also considered as a potential replacement in areas where traditional types of funding are failing to solve long standing problems.

WASH
Section 1.1
Discusses other potential advantages.

The aim of this paper is to examine the feasibility – challenges, opportunities and ways forward – of innovation prizes to support adaptation in a development context. The paper is part of the DFID-funded programme Ideas to Impact (2014–2019), which will design and implement prizes in three areas: energy access, safe water, and adaptation to climate change. On adaptation, the programme is focussing on two prize options: the first on demand-driven models for the use of climate information, with a particular focus on Kenya, and second, a prize to incentivise bringing adaptation solutions to scale through supporting innovation capabilities, focussed on Nepal. These areas were selected through expert consultation during April–June 2014, as comprising two of the key adaptation challenges which are at the same time, potentially suitable for a prize competition. For further detail on these two areas, see Annexes B and C, respectively. The paper is part of the initial research to analyse the scope of prizes to support adaptation, and key areas to test during implementation. The paper is based on a review of published and unpublished ('grey') literature and interviews and consultations with about 100 global and in-country adaptation experts, policy makers, funders and non-governmental organisations (NGOs) between April 2014 and March 2015.

The paper is structured as follows. We start by reviewing innovation prizes' expanding focus, and examples of the application to adaptation, with the arguments and concerns raised (section 2.1 and 2.2). We then (section 2.3) develop the analytical framework, centred on two components: first, characteristics for successful adaptation outcomes, and second, theories of how the outcomes for the poorest and most vulnerable groups are mediated through complex interactions between actors, the narratives or discourses they are supporting, and their agency in bringing their views to bear on activities. Section 3 applies this analytical framework to innovation prizes to support adaptation. We find the key challenges to be (1) that the approach to participation in innovation prize processes tends to be limited, and in some cases contradictory to the goals they set out to achieve; (2) that the way prizes are run typically are about closing down rather than opening up spaces for participation; (3) that an intrinsic part of innovation prizes is to 'identify excellence' to choose a winner, which is a process that may narrowly define the terms of 'successful adaptation', and (4) that prizes to facilitate processes of wider participation would arguably make prizes more costly and time-consuming, and so potentially less attractive to funders.

In section 4, we reflect on the challenges and possible options to overcome them. It is clear that they represent real and important concerns, that if not addressed could render prizes more likely to reinforce drivers of vulnerability than help reduce them. However, we propose that the challenges are not insurmountable, and that they may be overcome through a process of careful design, monitoring and adjustment. The final section suggests a set of actions, to be tested out in the two prize areas in Kenya and Nepal.

2

INNOVATION PRIZES AND ADAPTATION: BACKGROUND AND ANALYTICAL FRAMEWORK

2.1 INNOVATION PRIZES: ORIGIN, CHARACTERISTICS AND RECENT TRENDS

The use of prizes as a mechanism to drive technological innovation and social change has taken off over the past few decades, both in terms of the number of prizes, and the value of prizes being awarded. McKinsey and Company (2009) report a 15-fold increase in the value of prizes above USD 100,000 since 1974. The way that prizes are being applied is also changing. Prior to the early 1990s nearly all prizes were awarded to recognise past achievements. Since then, however, the focus has shifted and the majority of prizes are now designed to induce future action and change. In more recent times, the distinction between recognition and inducement prizes has become increasingly blurred, with prizes taking on new shape depending on the specific needs of different situations (Deliotte, 2014). McKinsey and Company (2009) and Everett et al. (2011) define a number of indicative prize types, shown in Table 1, which reflect the different narratives around what prizes set out to do (their purpose), and how they set out to achieve this (their change levers).

Underlying all of these prize types is the imperative to discover and support new ways of approaching a framed problem, and to promote particular agendas and narratives in relation to a problem or prize area. **Depending on their design and motivation, some prizes might have a stronger focus on discovering novel ideas and solutions, and may be more open to 'surprises'**, whereas others may have a more narrowly defined idea of the kinds of activity or solution that should be awarded, with perhaps a more specific agenda-setting goal. In either case, the idea is that they create a space in which complementary and contesting knowledge bases come together to assert, or reach agreement on, what development should look like. They seek to support these development narratives by focussing attention on a particular issue, identifying excellence, inspiring others, influencing public perception and decision makers, providing financial rewards and mobilising further capital, building capacity of solvers, strengthening networks, and stimulating markets (Everett et al., 2011; McKinsey and Company, 2009). As such they form a highly visible space and method for innovation appraisal and decision making, i.e. they represent one of the many complex and political ways in which judgements and ideas evolve into development pathways (Leach et al., 2010; Stirling, 2008).

WASH
Section 4.1
For more on unexpected solutions.

Arguably, a key driving force behind the growth in prizes is the arrival of new forms of transnational corporate wealth, largely generated during the high-tech boom of the 1990s. These corporations are increasingly using prizes to channel funds towards social projects (McKinsey and Company, 2009) as part of their CSR commitments, which are being fuelled simultaneously by the opening up of new private sector opportunities in traditionally public sector spaces of social welfare provision (Sadler and Lloyd, 2009), and by a growing trend towards CSR as a way of generating good PR and supporting social processes that are ultimately good for business (Levick, 2012).

Although the majority of recent funding for prizes has come from large financial foundations and private sector actors – 74% since 2000, according to McKinsey and Company (2009) – governments are increasingly turning to prizes as a way to support innovation alongside traditional support for patents, grants, and competitively bid contracts (ibid.). This move reflects the broader shift towards PbR within public spending, and some arguments in its favour mirror those for results based finance in general, namely increased efficiency and reduced risk for the donor. In addition however, prizes are specifically credited as enabling engagement with a wide range of potential problem solvers, focussing them around an important goal without specifying the best approach, and showcasing multiple ways to resolve the problem (Everett et al., 2011).

In addition to the trends in private sector financing, PbR and shifting risk away from donors and towards recipients, the growth in use of prizes is emerging from a number of other powerful narratives including that: technology innovation will solve social problems and stimulate economic growth; competition encourages innovation; innovation processes are more effective if they include diverse framings and ideas; and that the media is important in changing consumer behaviour and building support for innovations (McKinsey and Company, 2009).

TABLE 1: TYPES OF PRIZES AND THE WAYS IN WHICH THEY INTEND TO SUPPORT INNOVATION

Source: McKinsey and Company (2009); Everett et al. (2011)

Prize type	Purpose	Potential change levers
Exemplar	Recognition prize to focus attention on, set standards in, and/or influence perception of a particular field or issue	Identify excellence Influence perception
Exposition / Innovation Awards	Recognise best practices, ideas, or opportunities, and provide support for growth/ development	Media attention Identify 'excellence' Mobilise capital
Network	Celebrate and strengthen a particular community	Identify 'excellence' Strengthening community Mobilising capital
Participation (Social prize)	Educate and/or change behaviour of participants through the prize process Enhance transfer of existing technology, behaviours or processes into the mainstream	Strengthening community Educating/improving skills
Community Action (Social prize)	Stimulate community action Enhance transfer of existing technology, behaviours or processes into the mainstream	Generating innovative ideas Mobilise capital and effort towards community issues Strengthening community (Works best in conjunction with other initiatives)
Market Stimulation	Emulate market incentives, driving costs down through competition and exposing latent demand	Identifying excellence Mobilising talent, capital Focussing a community Influencing perception
Point Solution / Open Innovation	Solve a challenging, well-defined problem requiring innovation	Focussing a community Mobilising talent

GUIDE
Stage 2
For more on different prize types.

2.2 INNOVATION PRIZES TO SUPPORT ADAPTATION TO CLIMATE CHANGE

The number of prizes focussing on climate change and the environment has increased considerably over the past 10-15 years. A McKinsey and Company (2009) survey of 219 prizes with prize purses of over USD 100,000, found that those focussing on climate change and the environment increased from 6 in 1997, to 77 in 2007. However, the overwhelming majority of these prizes have been on climate mitigation, to support development of low carbon technologies, innovative carbon emission reduction strategies, and encourage behavioural change. Experience in using prizes to support climate adaptation remains limited, however, interest in adaptation prizes is growing among both government and private sector investors.

A selection of prizes focussed on adaptation is shown in Table 2. They range from recognition focussed 'exemplar' prizes, such as the UNFCCC Momentum for Change: Lighthouse Activities prize, AfriCAN Climate, and the upcoming 2015 ASAP Prize for Progress in Adapting to Climate Change, which seek to highlight and encourage adaptation by awarding honours to individuals, communities, businesses, and governmental and non-governmental organisations, for best practice or recognisable adaptation achievements; through to more complex prizes that combine elements of prize types, such as Ashoka Changemakers and the Equator Prize.

This increased interest follows the general trend of prizes, in that funders are looking to reduce their risks and make funding more efficient, while drawing in new actors and demonstrating good practice. Given the dominance of private finance within prizes, and the tendency for many innovation prizes to focus on identifying and supporting market-based innovations, the relatively low number of adaptation prizes maybe attributed, at least in part, to the difficulties that climate adaptation efforts have faced in attracting private sector investment in general. The Africa Enterprise Challenge Fund for example, has highlighted challenges over the difficulties of engaging the private sector on adaptation through the REACT Window.[1] The challenge of stimulating private sector interest in adaptation is also a motivation for the development of prizes, such as with the Ideas to Impact programme, as prizes are seen as a useful way to engage private sector actors.

TABLE 2: EXAMPLES OF INNOVATION PRIZES FOR ADAPTATION

Prize name	Prize type	Prize Goal(s)	Award
Equator Prize	Innovation Award/ community action	Recognise and advance local sustainable development solutions for people, nature and resilient communities	USD 5,000 x25 and 'several' USD 20,000
Ashoka Changemakers	Network / point solution	Build networks, using a web-based platform to connect foundations and corporations with social innovators through challenges	USD 5,000 to millions
The ND-GAIN Corporate Adaptation Prize	Exemplar	Recognise corporate achievement in reducing climate vulnerability of those in highly vulnerable countries	Honour
NCCARF Climate Adaptation Champions	Exemplar	Recognise achievement of Australian businesses, government departments, and individuals in supporting adaptation	Honour
Climate-KIC Climate Adaptation Business Challenge 2013	Innovation Award	Explore new business ideas and support promising ventures in climate adaptation	Financial 15,000 EUR and 25,000 EUR
Solutions Search, Adapting to a Changing Environment	Innovation Award	Recognise and support successful community-driven adaptation	Financial USD 5,000 x2 and USD 20,000 x2
2015 ASAP Prize for Progress in Adapting to Climate Change	Exemplar	Improve professional practice in adapting to climate change by highlighting the adaptation practices of leading U.S. communities and organisations	Honour
AfriCAN Climate	Exemplar	Recognises excellence among practitioners and researchers working on climate change in Africa. Part of information dissemination and AfriCAN promotion activities	Honour
UNFCCC Momentum for Change: Lighthouse Activities	Exemplar	High profile recognition prize, highlighting climate change actions to "strengthen motivation, spur innovation and catalyse further change towards a low-emission, high-resilient future"	Honour
Rockefeller Foundation Global Resilience partnership	Point solution	Design challenge that brings together cross-sectoral teams to research and develop large-scale, 'locally-driven' resilience solutions	Financial

1. AECF staff, Nairobi, May 20141.

2.3 ANALYTICAL FRAMEWORK

This section will explore the arguments for innovation prizes and adaptation, laying out the analytical framework for the sections to follow. The framework is built around two key components of theories of adaptation. The first is that adaptation outcomes are mediated by actors, narratives and agency. This component is important in order to understand whether and how innovation prizes can help unblock or overcome challenges of benefiting the poorest and most marginalised groups of people. The second component concerns characteristics of successful adaptation. This is important as it relates to the match between what prizes are aiming to achieve and desirable adaptation outcomes.

Adaptation is defined as "adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities" (Adger et al., 2007: 720). It is most commonly thought of as a process involving reduction in vulnerability to climate shocks and stressors, but can also be seen as an outcome of 'being adapted'. Adaptation thus involves a range of activities and processes, from making development processes robust and flexible in the face of climate change, to targeted interventions to confront particular climate projections. Adaptation will require a combination of improvements in existing processes, introduction of new technologies and practices, as well as deeper, transformative change in policies, institutions, social relations, and behaviours. Adaptation will occur through a mix of planned and so-called autonomous[2] change, 'top-down' implementation as well as bottom-up responses, and anticipatory as well as reactive responses.

Political economy analysis of adaptation shows how it cannot be assumed that the poorest and most vulnerable will benefit from adaptation interventions, and there is an increasing recognition of the need to understand the politics of adaptation and which policy levers or 'spaces' can be used to support adaptation goals (Newell et al. 2014, Quan et al. 2014, Tanner et al. 2014, Eakin et al. 2015). For this paper, we draw on insights from research on complex social and environmental problems, focussing on two elements. First, analysing the key narratives, actors supporting them, the political issues involved, which actors, types of knowledge, perspectives, options, and possibilities are included and excluded in debates and decision making, and what implications this has for the direction of adaptation pathways. The purpose here will be to understand whether and how innovation prizes are centred on particular types of narratives and actors, and whether alternative narratives (and their associated actors) are excluded or included. The second part consists of understanding so-called 'policy spaces', areas where it is possible to expand debates, bringing evidence to bear on policy and action that would otherwise not be heard. This component is important to understand, following from the above, which possibilities that exist for overcoming the challenges that are identified.

Within traditional approaches to appraisal there is a strong tendency for greatest support and resources to be rallied around the narratives that resonate with the interests of those with social, political and economic power. Thus development pathways are likely to form in ways that reinforce existing power relations, closing down around the needs of the powerful and excluding marginal perspectives (Leach et al., 2010). This process of 'closing down' happens as particular types of knowledge, perspectives, options, and possibilities are prioritised over others. The most obvious example here is when governments set adaptation priority areas in national climate change strategies. But such processes can also be less visible by the normative values, assumptions and power relations that shape appraisal and decision-making structures, for example in the way that appraisal processes tend to define adaptation problems in terms of risk calculation, rendering invisible the diverse forms of knowledge, perspectives, and potential routes of action, that characterise complex issues (ibid.). Adaptation is a complex problem, in which the perspectives of marginalised groups and inclusion of local knowledge is vital. Thus a better understanding of the different narratives, the actors behind them, and their power relations, can help understand how to better target adaptation funding.

Table 3 outlines some generic characteristics of successful adaptation. Adaptation activities are first and foremost characterised by what factors are considered in planning, particularly for the poorest and most vulnerable, how development pathways are designed to be robust and flexible, adjusted to take into account the range of possible climate scenarios, and, crucially, how it considers options for transformational change in cases where gradual, incremental change is not sufficient.

2. Meaning taking place without external support.

TABLE 3: SOME CHARACTERISTICS OF SUCCESSFUL ADAPTATION

Sources: Based on Badahur et al (2010); Brookes et al. (2011); Eriksen et al. (2011); Tanner and Horn-Pathanothai (2014)

Characteristic	Description
Effective	• Achieves stated adaptation objectives of adjusting to current or projected climate shocks and stressors
Recognises complex contexts	• Considers the intersecting social relations and environmental conditions that lead to climate vulnerability and recognises other drivers of change, as well as the potential effects of feedbacks between local and global economic, political and social processes • Allows for, or supports, multiple adaptation solutions that meet the diverse needs of vulnerable people in complex contexts
Robust and flexible	• Strengthens the ability of systems to maintain or recover function under short term climate shocks and long term climate stresses, and is able to respond to a wide range of future climate conditions • Able to change and adjust in order to adapt to different contexts, and future system changes. Leads to an increased range of options and avoids 'locking-in' to particular technologies or development pathways
Equitable and legitimate	• Ensures equitable distribution of benefits and proactively targeting marginalised social groups • Accepted among those affected; values and incorporates the local knowledge and narratives of those affected
Potentially transformative	• Recognises incompatibilities between business-as-usual development and vulnerability reduction or resilience building, and works towards transforming development trajectories
Low or no-regrets, cost efficient	• Provides benefits irrespective of climate change and provides solutions that are accessible and effective for those with least or limited access to resources • Cost efficient compared to other options, both in terms of monetary input and unpaid work effort

3

APPLYING THE FRAMEWORK: ANALYSIS OF INNOVATION PRIZES AND ADAPTATION

This section will discuss innovation prizes in view of the framework discussed above. Bearing in mind what we know about the characteristics of successful adaptation and the shortfalls of existing adaptation funding, especially in addressing the diverse adaptation needs of the poorest and most vulnerable[3], we discuss here what role innovation prizes could play in filling the gaps, and what a prize would need to consider if it were to support adaptation.

3.1 PRIZES GIVING OPPORTUNITIES FOR THE POOREST AND MOST VULNERABLE?

ENERGY ACCESS
Section 4.6
For more on grassroots innovation.

If prizes are to support adaptation for the poorest and most vulnerable, they need to provide a space for the **perspectives of marginalised groups to shape the kinds of solutions that are supported**. In order to begin addressing the ways in which appraisal processes close down around the priorities of powerful interests, we suggest that prizes should focus on three processes (as proposed by Leach et al., 2010):

1. Broadening out the inputs to the prize process – making it inclusive of diverse perspectives, methods, possibilities, options and conditions
2. Opening up the outputs from the prize process – recognising diverse options and acknowledging distributional and sustainability implications of the adaptation pathways that will result.
3. Addressing unequal power relations; for example, highlighting the needs of the very poorest social groups, so that it does not inadvertently or deliberately prioritise pathways favoured by a particular group.

The ways in which a prize engages with these processes and facilitates the dialogue over what adaptation should look like, and which options should receive support – which actors it brings to the table, what conditions, possibilities and perspectives it considers, and the support or power it lends to the different narratives that are presented – will have important implications for the distribution of benefits from prize outcomes. This echoes feedback from our key informants, which suggested that special care and a 'positive bias' would need to be **applied to prize design and implementation in order for prizes to reach and benefit the poorest and most vulnerable communities**.

GUIDE
Stage 2
For more on including stakeholders.

Reflexivity is crucial if prizes are to open up support for marginalised actors. Throughout prize design and implementation, choices over the kinds of problems tackled and the solutions that arise will be based on incomplete knowledge (Leach et al, 2010). This is especially the case with climate adaptation. Climate change is, by its complex nature, characterised by various levels of uncertainty over projected biophysical impacts, with the social impacts of any one climate hazard potentially experienced and interpreted in a myriad of different ways by different actors and at different times. Many informants highlighted the challenge involved with identifying new solutions, such as models for increased uptake of climate information, that would be generic enough to have relevance to a sufficiently large population to be viable, while at the same time being specific enough to be of relevance to people's livelihoods.

Anticipating who is most vulnerable to climate change, and what leads to their vulnerability is rarely straightforward. For example, whereas one study on vulnerability to water stress within certain communities in China found socio-economic factors to be the most important driver of vulnerability (Liu et al., 2008), a similar study in the Philippines showed that geographical location in relation to markets and irrigation facilities was a more important determinant of farmers ability to adapt (Acosta-Michlik and Espaldon, 2008). Unexpected and unintended outcomes are unavoidable, but must be responded to in order to build resilience. From this, adaptation prizes must be able to incorporate iterative learning, attempt to be open to a **wide range of sources and types of knowledge**, and question claims of objectivity or certainty as they may exclude other ways of viewing the world. Key informants highlighted the range of skills, technologies and capacities that existed at the local level, but the difficulty in attracting funding to support scaling up of activities.

GUIDE
Stage 3
For more on the benefits of a diverse range of solvers.

3. The term 'poor and vulnerable' reflects the "very poor" and "poor" segments of Ideas to Impacts Programme focus on low income households. [Very poor, below $1.25 purchasing power parity per person per day; poor $1.25 - $2.5 Purchasing power parity per person per day]

Goldfrank (2006) highlights transparency as key to opening up decision-making processes, so as to consider complexity and ambiguity; making all relevant information accessible (including information about the funding context), and the rules, criteria or methods used for making decisions, so that it can be opened up to participatory debate and deliberation.

If we start at the beginning of the prize process, with the framing of the problem, prizes will be subject to pressures that may cause them to close down around particular interests and world views. Sponsors will have priorities and ideas about what problems need solving (McKinsey and Company, 2009), but these priorities may not align with actual adaptation needs. Despite increased focus on mapping adaptation needs at sub-national and local scales, important gaps exist between bottom-up perspectives and the dominant, global and national level assessments based on downscaling global climate models and setting national level adaptation priorities. If problem definition happens from the top-down, then the outputs of the prize will already be largely constrained to those that fit with those adaptation and development narratives supported by powerful interests. This is a particular problem in situations where successful adaptation requires transformative innovations, or processes of empowerment, which clash with interests of incumbent elites, in particular, prize sponsors.

Engaging with processes of broadening out and opening up, therefore means beginning with bottom-up, participatory processes of problem framing. A lot of work on community based adaptation has been carried out in developing countries over recent years, documenting the wealth of local knowledge and perspectives on vulnerability and adaptation, but this body of work has so far had limited impact on national level policies and strategies, which remains to a large extent driven by formal scientific knowledge. **Some informants highlighted that a possible positive effect of a prize could be to bring local 'best practices' to the attention of a wider audience, thus influencing policy processes from the bottom up**.[4]

GUIDE
Stage 2
For more on changing the policy environment.

More than giving stakeholders influence over the type of problems that are solved, it also means asking *why* the prize is being run, making visible the powerful and the marginal narratives shaping the framing of the problem, the dissenting opinions among stakeholders, and opening up these elements of problem framing to transparent deliberation. Further, questions need to be asked about whom the stakeholders are that influence prize framing, and how their perspectives are weighted in the decision, i.e. how much power do they have? 'Experts' for example will no doubt have a role to play in this process, but their input should be taken in a wider context that gives symmetrical weighting to different kinds of knowledge (Leach et al., 2010) including the world views of climate vulnerable and marginalised groups.

Opening up the prize outputs will require more than awarding multiple winners. A diversity of perspectives should be reflected within the adaptation options supported. The prize processes, and the decision-making methods and tools used within the prize will shape the outputs through the ways in which they consider different contexts and kinds of knowledge, the perspectives they solicit and support, and the options they permit. Thus, multiple winners may reflect a very narrow range of options if, for example, the process of choosing those winners gives greater weight to particular narratives, is based on criteria that attempt to reduce the complexity of adaptation, leaves no space for options that challenge dominant development pathways, or if it exerts structural pressures that reinforce power relations and thus exclude certain actors.

Careful and reflexive design of prize processes is needed, to make them as inclusive as possible. Within this, specific targeting of marginalised groups and consideration of power relations are key. How, for example, is gender taken into consideration within judging, and prize design? Are women and men's voices being given equal weight in deciding what solutions are awarded? Do existing gender norms and divisions of labour constrain the ability of women to participate in the prize competition? Different tools and methods will also close down around particular ways of seeing the world. Cost-benefit analyses for example, can be seen to close down as they ignore or obfuscate particular dimensions of cost and benefit; In particular as they draw greater attention to easily quantifiable financial gains and losses, and down play factors with greater ambiguity such as complex social and economic issues, and environmental impacts (Leach et al., 2010).

As with problem framing, a participatory deliberative approach to making final investment decisions would enable discussion over the ambiguity inherent adaptation challenges. Again, this means more than putting it to a public vote. It should seek to understand who is likely to benefit from the supported options, and how. Questions such as how cost efficient an option is can be explored in ways that go beyond narrow definitions of cost-benefit, to include diverse and unquantifiable perspectives on social and environmental impacts. Understanding the ways that supported options are shaping and evolving into development pathways takes time, however. Long term monitoring is therefore essential, for example through feeding back learning into reflexive discussion about how the prize is run in future and what adaptation problems and options receive support.

4. Senior policymaker, Nepal, March 2015

3.2 SUCCESSFUL ADAPTATION AND ADAPTATION PRIZE NARRATIVES

Without processes of reflexivity, prizes may, due to exclusion of marginalised framings within the narratives that shape prize design and operation, act to further close down around dominant development pathways.

As noted above, the increasing use of prizes reflects a shift in the way that funding is being disbursed more generally, from traditional grant-based financing, towards PbR. This requires programme and project implementers to have delivered independently verifiable results before they are paid for the work they have done. The move towards PbR and prizes can be seen as part of a continuing trend towards neoliberal models of governance and finance, in which public spending is reduced in favour of private sector investment. This makes prizes potentially appealing to donors on the basis that they can be certain of impact before they make an investment, and potentially leverage much greater private sector investment around a problem through prize participants, than the prize purse itself. It is also claimed that prizes are particularly attractive to private-sector investors, who are thought to seek measurable and tangible results (McKinsey and Company, 2009). An argument for cost efficiency in adaptation could therefore make prizes and PbR seem like a logical way of distributing limited adaptation funding. Indeed donors, such as DFID and USAID, advocate PbR on the basis that it provides greater value for money and facilitates more efficient and justifiable public spending in the face of contracting public budgets (Grimwood et al, 2013).

However, several informants noted that prizes would challenge the dominant mindset among many actors, particularly NGOs and CBOs, of receiving grants to undertake work, and importantly, could risk putting increasing strain on already overstretched budgets. For the private sector, the challenge is to **incentivise them to take part in a competition where the reward is only paid (if they are successful) after a period of time**. This highlights the need for risk reducing measures, such as co-funding or small initial prizes, as well as annual awards, to provide incentives to take part in the prize process.

WASH
Section 2.3
For more on the risks to solvers.

The innovation prize logic focussed on certainty has also been critiqued as being at odds with what we know about complex problems and the need for supporting long term reflexive processes in order for adaptation activities to incorporate ambiguity and respond to surprises (Chambers, 2014; Leach et al., 2010).This need to understand and work with complexity is a central tenet of the growing literature on resilience (Bahadur et al. 2010; Tanner et al. 2015). It can therefore be argued that prizes may run the risk of encouraging a focus on supporting easy wins (Grimwood et al, 2013) – those that can be demonstrated quickly – at the expense of investment in long term adaptation processes. Further, requiring participants to have solved the problem before they are paid creates a significant structural barrier to those actors that do not have the available resources to undertake work upfront, or bear the burden should they not be awarded the prize (Everrett et al., 2011; Grimwood et al., 2013). This is where ambiguity over terms such as cost efficiency and risk become apparent. As a characteristic of successful adaptation, cost efficiency should not only refer to the ability of donors to save money, but equally the ability of those with limited access to resources to access and benefit from adaptation funding. Transferring pressure and risk to participants may be beneficial for donors, but could pose insurmountable or even damaging obstacles for small actors, thus potentially excluding already marginalised voices, ultimately impeding the cost efficiency of adaptation measures overall.

Connected to narratives of reduced public spending is the growth in CSR investments by the private sector. Many prizes are aligned closely with the interests of specific organisations, corporations and entrepreneurs (McKinsey and Company, 2009). This raises a key challenge for climate change adaptation in that it is an area that has struggled to leverage much private sector support. Pauw and Scholtz (2012) name three key motivations for why the for-profit private sector currently engages with adaptation: 1) to capitalise on new markets, 2) to protect their own existing assets, and 3) as part of corporate CSR commitments. The authors also provide some explanations for this lack of private sector investment, especially in developing countries. First, many adaptation activities such as coastal protection and ecosystem conservation are not considered commercially attractive. Where investments in agriculture and water occur, they are more likely to support large-scale export activities than the small-scale activities that support local communities. Thus, while there may be some instances in which the adaptation needs or wants of big business coincide with the adaptation needs of those people who are genuinely most vulnerable to climate change, that coincidence cannot be assumed. And, efforts to promote and support adaptation among marginalised groups should not be driven by corporate interests alone.

A second factor is the generally unconducive business environments and low level of foreign direct investment in least developed countries (LDCs), which tend to have the most urgent adaptation needs. The majority of business activities in LDCs come from micro-enterprises, which lack the capital to invest in adaptation. Thirdly, the authors highlight the lack of a clearly defined role for the private sector in adaptation plans and policies such as National Adaptation Programmes of Action (NAPAs), and suggest that LDCs should lead on defining this, as they know their conditions best. A 2013 report by PwC for DFID also cites lack of risk information, poor regulatory, policy and legal environments, lack of domestic public and financial infrastructure, security constraints, weak incentives, lack of capacity and skills, and weak knowledge exchange platforms, as barriers to private investment in Bangladesh, Kenya, Mozambique and Pakistan (PwC, 2013).

Another connected narrative is the general – although not universal – focus of innovation prizes on supporting marketable services and technologies. Technologies and services have vital roles to play in supporting adaptation, but also tend to represent a narrow, technology and management-oriented framing of problems. While it is clear that private sector interest in adaptation is increasing, it is still an open question whether the market potentials offered by adaptation are sufficient to attract private sector actors, particularly among the poorest social groups. As one informant noted, even climate risk insurance, where there is considerable ongoing private sector efforts, have significant challenges reaching the poorest and most vulnerable.

The trend towards disbursing larger funds through prizes could be seen as a move towards increasing the impact of CSR. However, the imperative to create greater social impact through CSR is unlikely merely philanthropic; rather it stems from a further neoliberalisation of traditionally public sector spaces of social welfare (Sadler and Lloyd, 2009), and a realisation among corporate management that CSR can increase the profitability and share prices (Levick, 2012). If there are not clearly profitable benefits to supporting adaptation, then it would seem unlikely that it will gain significant support.

3.3 ADAPTATION PRIZE EXPERIENCES – OPENING UP OR CLOSING DOWN?

This section looks more closely at some of the prizes outlined in adaptation prize experience section. In practice, adaptation prizes have taken a variety of forms, drawing on prizes' potential to change perceptions, focus attention on adaptation problems, and build the capacity of communities of practice to solve these problems and scale-up solutions. These prizes address, and sometimes fail to address, the potential challenges of prizes for adaptation in different ways.

'Exemplar' prizes such as NCCARF Climate Adaptation Champions and the upcoming 2015 ASAP Prize for Progress in Adapting to Climate Change, seek to highlight and encourage adaptation by awarding honours to communities, businesses, and governmental and non-governmental organisations, for best practice or recognisable adaptation achievements. Although receiving an honour might open up access to further funding, and the networks created through the prize may benefit the awardee, these prizes are not fulfilling the goal of delivering funding to those who would otherwise not have access. Arguably, this does not address the challenges with PbR, in that entrants are given no support by the prize to achieve the requirements of an award, presenting potential barrier to access.

The winners of the 2013 Notre Dame Global Adaptation Index (ND-GAIN) Corporate Adaptation Prize included Monsanto and PepsiCo. The prize is aimed at corporations to encourage private sector investment in adaptation. These prize winners are already very well-funded, and both companies have controversial records on sustainability. Monsanto for example, have been accused of suppressing independent research, suing small farmers for seed saving, increasing monoculture, encouraging herbicide and pesticide use, and promoting genetic engineering at expense of potentially more cost effective alternatives (Robin, 2010). Despite being heralded in the mainstream for their sustainability efforts (Kanani, 2012), PepsiCo have also attracted recent criticism from activist groups for their weak commitments on palm oil and deforestation (Kaye, 2014; Greenpeace, 2014). Thus, it is questionable in this instance that the prize does much to encourage transformation away from unsustainable development. It also highlights the risk of adaptation prizes supporting unsustainable and unjust development pathways if it does not lead to changed behaviour, or worse, is used to 'green wash' otherwise unsustainable activities.

In contrast, the UNDP Equator Prize is a recognition prize that aims to support sustainable development work by communities and indigenous groups. Every two years it awards 25 small cash prizes of USD 5,000 to 20,000. While the prize award itself is not going to meet long term funding needs, the argument is that well targeted small cash grants can support growth and catalyse change (UNDP, 2012). A high profile ceremony and prestige of award are both designed to influence wider policy, and the prize may demonstrate the value in funding community organisations. Many winning community organisations have also received grants from the GEF Small Grants Program, helping to support the initiatives beyond the prize itself. The prize is combined with networking, capacity building and knowledge sharing activities as part of a wider Equator Initiative. The benefit of the prize would thus seem to be synergistic with existing funding, but it is unclear to what extent the distribution of SGP funding is different as a result of the prize.

With regards to opening up development pathways and meeting context-specific needs, the Equator Prize recognises that 'there is no one route to achieving livelihoods and conservation goals, but that this more often consists of trial and error, underpinned by social cohesion and group trust' (UNDP, 2012). Winners of the Equator Prize are selected by an independent technical advisory committee formed of environment and development practitioners, and a jury of high-profile 'experts'. The selection criteria are relatively broad (Box 1), allowing for a diversity of awardees that can be seen to align with the aforementioned characteristics of successful adaptation (Table 3). The choice of high-profile experts used within the jury raises an important issue. On the one hand, high-profile judges give legitimacy to the prize and strengthen the winning narratives by providing the backing of powerful voices. On the other hand, the imperative to use high-profile judges, calls into question the likelihood of a prize to offer truly transformative change that challenges existing power structures, especially if those judges have been chosen largely based on their status. Thus, despite a recognition of the complexity of adaptation, the process by which awardees are chosen rest on opinions of experts with varying degrees of connection to the communities and organisations that will benefit. Although certain marginalised perspectives will likely influence the judging process via the technical committee, it remains far from the participatory processes that would begin to open up investment decisions to reflexive deliberation.

BOX 1: UNDP EQUATOR PRIZE SELECTION CRITERIA

- **Impact:** Initiatives that have improved community wellbeing and local livelihoods through sustainable natural resource management and/or environmental conservation of land based and/or marine resources.
- **Sustainability:** Initiatives that can demonstrate enduring institutional, operational and financial sustainability over time.
- **Innovation and Transferability:** Initiatives demonstrating new approaches that overcome prevailing constraints and offer knowledge, experience and lessons of potential relevance to other communities.
- **Leadership and Community Empowerment:** Initiatives demonstrating leadership that has inspired action and change consistent with the vision of the Equator Initiative, including policy and/or institutional change, the empowerment of local people, and the community management of protected areas.
- **Empowerment of Women and Social Inclusion:** Initiatives that promote the equality and empowerment of women and/or marginalized groups.
- **Resilience, Adaptability and Self-Sufficiency:** Initiatives demonstrating adaptability to environmental, social and economic change, resilience in the face of external pressures, and improved capacity for local self-sufficiency.

The NESTA Big Green Challenge (BGC) presents further lessons for the delivery of a community-focussed prize. The prize was run in order to encourage community innovation in reducing carbon emissions in the UK. There are thus key differences in this prize when compared to a climate adaptation prize, most notably the relatively concrete nature of carbon reductions in comparison to the complexity of climate adaptation, as well as the different resource constraints and political economy of community groups working on mitigation and adaptation in different country contexts. There are, however, important crossovers with the role we are exploring for adaptation prizes, and the extensive independent evaluation and lesson sharing of this prize in comparison to other prizes, provides a number of insights into the potential benefits and challenges of this funding model. The prize delivered GBP1million in funding, shared between three winners (GBP 300,000 each) and one runner up (GBP 100,000). This was awarded based on the recognised achievement of prize outcomes. Total costs of the prize were considerably more, at GBP2.25 million. These high costs were attributed in large part to the emphasis on sharing learning from the prize (Everett et al., 2011). However, direct delivery of funds to community groups and lack of constraints on how prize money was spent enabled winning participants the flexibility to target those funds in the best way possible for their community (Everett et al., 2011). Given the imperative to maintain transparency and reflexivity, it is also likely that total costs for an effective adaptation prize will be significantly higher than the prize purse alone. More evidence is needed to assess whether the benefits of targeting funding to the local level outweigh the costs of running the prize, and how this compares with the social benefits and cost efficiency of other forms of locally targeted adaptation funding.

Beyond value for money considerations, there were found to be further benefits of targeting the prize at community level actors. As intermediary actors between individuals, businesses and public institutions, it was found that community groups were able to see and develop opportunities that both private and public sector actors would not be able to. In addition, targeting the prize at communities was found to encourage collective action, and create a sense of ownership and responsibility (Cox et al., 2010). This highlights our previous assertion that the inclusion of different framings and local knowledge has material consequences for the direction of adaptation and development pathways, as well as implications for the legitimacy of outcomes within affected groups. It was also found that prizes were unsuitable as substitutes for grant funding, and that all finalists were only able to achieve what they did with access to other financial resources or support (Cox et al., 2010). This being said, the prize structure was found to enable greater support for some applicants that may not have been considered through conventional funding. For example, one of the prize winners was not yet a legally constituted group at the beginning of the prize process (Cox et al., 2010; Everett et al., 2011).

GUIDE
Stage 2
For more on grassroots innovation.

Support was given for prize entrants to develop their applications. However, these attempts to compensate for structural inequalities that could hinder access to the prize were not entirely successful. "Less experienced groups" were still found to suffer "disproportionate attrition in the rigorous, three-stage selection process" (Cox et al., 2010 pp 8). The outcome based prize approach was found particularly demanding for participants, with high levels of personal sacrifice made by all those who took part (Everett, 2011). Despite low barriers to entry and a staged prized design, the burden of risk was overwhelmingly placed on entrants, with some non-winning entrants "stretched to the limit with little reward". The impact of this burden on communities was not captured in the evaluation (Cox et al., 2010).

Ashoka Changemakers, another high profile prize focussed on addressing social problems, also holds network building as central to innovation. Rather than awarding communities, Ashoka targets the prize towards social entrepreneurs. The prize operates through a point solution model in which challenges are proposed by sponsors and investors, including large corporations such as ExxonMobil and eBay as well as international foundations such as the Rockefeller Foundation. A community of thousands of social entrepreneurs, past prize entrants and Ashoka Fellows then break the problem down into potential barriers to success and high-leverage design principles, and presents them on a grid. As prize entrants place their entries publicly on this grid, highlighting their design principles and barriers, this is intended to encourage collaboration between entrants and influence the way that prize sponsors frame the problem (McKinsey and Company, 2009). The method used to frame problems for Changemakers is interesting, because it highlights possibilities for opening up the framing process. However, overall the framing of problems remains constrained by dominant development priorities in that the basic problem is defined by sponsors. Ashoka also work based on a theory of change that is centred on social entrepreneurship, with the actors invited to influence problem framing having already subscribed to this narrative, thus further restricting problem framing and limiting the types of solutions that can emerge.

The entries are then judged by a panel that includes potential investors. Initially awards were in the region of USD 5,000, with exposure the main route to further funding; however, there has recently been a move towards using Changemakers to disburse larger funds with greater impact (Everett et al., 2011). On the one hand this prize model connects prize entrants with investors, potentially increasing their chances of funding though the prize (McKinsey and Company, 2009). On the other hand it can be seen to create a clear bias in which both the prized areas and the winners of those prizes are chosen at least in part based on their appeal to investors rather than on their ability to meet the needs of those they claim to benefit.

Indeed, Changemakers publicises that the prize platform offers investors access to a high number of 'new investment-grade innovations' and the opportunity to 'raise awareness and strengthen the global commitment to [that] organisation's goals'. Nancy Barrand of the Robert Wood Johnson Foundation's Pioneer Fund acknowledges this benefit in stating that "The Changemakers open source competition model let us shorten our three-to four-year Call for Proposals process for identifying investment-grade opportunities to three or four months, while delivering an equivalent number of quality projects." (Everrett, et al. 2011, The Case Studies pp.1).

3.4 HOW ARE ADAPTATION PRIZES MEASURING SUCCESS?

As mentioned above, adaptation remains highly context-specific; both the exact problem and the exact solution will vary from one location to another. This makes **formulating prize criteria** as well as measuring the success of climate adaptation prizes particularly challenging.

GUIDE
Stage 3
For more on award criteria.

Many outcome criteria such as those used to judge the Equator Prize (including impact, resilience and sustainability) take a long time to demonstrate; hence the Equator Prize requires that entrants be operational for at least three years. Ashoka also note that observing system change can only be undertaken in the long term. In its six-year impact reports, which focus on the Ashoka Network as a whole, Ashoka uses a combination of quantifiable data (using proxy measures for impact, see Box 2), individual impact stories (i.e. narratives of individual actors), and system analysis (i.e. looking at how the larger systems have changed). This data is gathered through self-assessment questionnaire by Ashoka Fellows and in-depth interviews with individuals impacted by the work, which is focussed on how Ashoka has helped the social entrepreneurs and impact of entrepreneur on system/society.

Given the difficulties in delivering quantifiable data on results in the short term, the Changemaker judging process – as with the other prizes highlighted here – relies largely on the subjective judgements of 'experts' when dealing with complex problems. NESTA asks for example, "Is the application innovative". This ability of prizes to rest on subjective judgement aligns them more in some ways with traditional funding, but also potentially overcoming one of the criticisms levelled at PbR in that the outcomes reflected in prize criteria do not have to rely on production of quantifiable (and comparable?) numbers. In this way, they may be better at addressing complexity than PbR in general, although they still define success through expert analysis rather than participatory deliberation.

BOX 2: ASHOKA PROXY INDICATORS

- **Does the idea persist and has it spread?**
  - Are you still working toward your original vision?
  - Have others replicated your original idea?
  - Have you had impact on public policy?
- **Has an institution been created or expanded?**
  - What position does the institution currently hold in the field?
- **Has the Fellow's relationship with Ashoka "enhanced" his or her work?**
  - Do you identify yourself as a social entrepreneur?
  - Have specific aspects of your relationship with Ashoka enhanced your work?

Ashoka's Measuring Effectiveness study captures a snapshot in time. Ashoka expects Fellows' trajectories to change as they develop new strategies and improve their ability to spread their ideas. In-depth interviews supplement the surveys and provide a basis for understanding Fellows' work. These case studies carried out by Ashoka staff introduce some of the richness lost by quantitative and multiple-choice responses alone. The reader learns, for example, which groups of citizens have benefited, the systemic nature of the change, and the proposed strategies for long term spread.

The methods used for Ashoka's Measuring Effectiveness project introduce some limitations, however. All of the information presented here is reported directly by Fellows themselves. Fellows are encouraged to respond honestly and are explicitly told that the Measuring Effectiveness study does not evaluate their success but rather Ashoka's impact on the field. Ashoka staff around the world execute all steps of the Measuring Effectiveness project from design to analysis. Ashoka has maintained this internal process both because it reduces resource intensity relative to external evaluation and because it allows the study to account for Ashoka's particular perspective on social change, and the use of proxy indicators such as those in Box 2, narrowly defines success in terms of that particular narrative, in which social change is catalysed by social entrepreneurs.

4

DISCUSSION AND CONCLUSIONS

This section draws together the discussion in the previous section, first highlighting opportunities (subsection 4.1), and second, setting an agenda for exploring how challenges may be overcome through prize design (subsection 4.2). The latter informs how the 'Ideas to Impact' programme is currently being designed in the two adaptation areas, namely demand-driven models for improved use of climate information in Kenya, and models for supporting the scaling up of innovation capabilities in Nepal. A more complete synthesis of the analysis is given in Annex A.

4.1 A ROLE FOR INNOVATION PRIZES TO SUPPORT ADAPTATION? KEY POTENTIAL OPPORTUNITIES

Innovation prizes aim to catalyse change around a problem or issue by finding and funding new solutions, and by raising support for particular ways of doing things. They can take many forms and employ many different strategies to support change. Depending on the ways in which adaptation prizes are designed, the motivation for prizes on adaptation is that they may have the potential to:

- **Leverage more adaptation funding.** As prizes are growing in popularity among businesses, financial foundations, and public sector donors, adaptation prizes could hope to capitalise on this finance trend. The argument is that prizes may be able to leverage much more than the prize purse, by encouraging further private sector investment. This would be a considerable benefit to adaptation, which is still struggling to attract private sector finance.

WASH
Section 3.2.3
For more on how prizes can leverage funds.

- **Promote diversity to tackle complexity.** Adaptation is a complex and context-specific challenge, requiring tailored solutions. While this is a challenge, this may also be an opportunity, in that prizes attempt not to prescribe what the solutions should look like, or how they should be achieved. Often the winning solutions are a surprise to sponsors. By actively seeking out and including diverse voices on adaptation, prizes can thus help support solutions rooted in particular contexts, highlighting the many different perspectives on, and ways of adapting to, climate change.

- **Put local-level actors in the lead.** Prizes can be designed in a number of different ways. They could thus offer an opportunity to re-define who makes adaptation investment decisions. With careful design, it could be possible to use prizes to shift the attention – and decision making power – towards those who are most affected by climate change. Prizes could provide a platform for those who are often not effectively targeted by adaptation finance to set the investment agenda, showcase solutions, and influence how funds are spent.

GUIDE
Stage 2
For more on changing the policy environment.

- **Influence policy and raise awareness.** As high profile and engaging events, prizes can capture the attention of policy makers, media, the public, and professionals alike, helping to rally support for adaptation measures that considers the needs but also capacity and skills of the poorest and most vulnerable groups.

- **Build communities of practice.** Adaptation cuts across sectors. It requires collaboration and collective action. Prizes have the potential to bring together new actors, strengthen networks and build new communities of practice to focus on particular adaptation challenges.

4.2 KEY CHALLENGES AND PRINCIPLES FOR RESEARCH AND APPLICATION

Our analytical framework is based around an understanding of framings and narratives, actors and agency and how they interact to produce particular development pathways, and in turn particular adaptation outcomes. This framework represents a critique of a linear, techno-managerial approach to adaptation support. As shown in the previous sections, key to this critique is that for a prize to successfully support adaptation, it needs to be able to consider and support the diverse perspectives of marginalised groups. This involves, in particular, (1) broadening out the inputs to the prize process, i.e. making it inclusive of diverse perspectives and priorities); (2) opening up the outputs from the prize process, i.e. recognising diverse options and acknowledge distributional and sustainability implications of the adaptation pathways that will result, and (3) attending to power relations through the process, so that it does not inadvertently or deliberately prioritise pathways favoured by a particular group.

As yet, there is limited experience of using prizes to support climate change adaptation, and the potentials as outlined above remain largely untested. However, existing evidence highlights a number of serious challenges, outlined below. We propose from available evidence that these challenges are not insurmountable, but may be overcome through careful consideration in design and implementation of innovation prizes to support adaptation. Following this, we lay out a set of indicative solutions to consider in prize design and management, which will be tested through the two prizes for adaptation. Some of them have already informed prize design for the adaptation theme of the Ideas to Impact programme, and they will continue to inform design, and tested through the implementation of the prizes.

CHALLENGE: UNEQUAL PRESSURES INCREASE MARGINALISATION

- As a form of PbR, prizes tend to transfer risk from sponsors to prize entrants. While this may result in greater cost efficiency for sponsors, it also potentially excludes resource constrained actors, and places participants under strain if not otherwise supported. Lessons from the NESTA Big Green Challenge (BGC) note that, despite efforts to provide support, great financial and time pressures were placed on prize entrants, and these had a greater impact on those with fewer resources (Cox et al., 2010).

POSSIBLE DESIGN SOLUTION: STRUCTURAL SUPPORT AND ACCESSIBILITY

- Prizes must be designed to empower those without existing access to resources, not discriminate against them. Prizes should specifically target and attend to the needs of those who do not usually gain access to funding.
- Prizes are in most cases not a replacement for grant funding. In fact, grants are shown to be crucial in supporting community prize entrants to participate and take their innovations further (UNDP, 2012; Cox et al., 2010). By giving credibility to entrants and combining grant funding with the prize process, prizes can make access to funding easier.
- Accessibility includes reducing time as well as financial burdens, for example, by providing support with child care for primary carers, and running prizes over timescales that accommodate participants with multiple commitments. As demonstrated, the fast pace of BGC was one of the most serious pressures for community participants (Everett, 2011).

CHALLENGE: PRIZES FAVOUR POWERFUL INTERESTS

- Growth in prizes is being driven by powerful narratives such as PbR, which may not favour those with greatest adaptation need.
- The problems to be solved are often largely defined by sponsors, and solutions commonly judged by 'high-profile experts', rather than being shaped and decided by the priorities of the most vulnerable populations. This introduces the risk that the spotlight is on problems and solutions that suit the dominant actors. Adaptation is complex – what works for some may hinder others. So allowing the prize definitions and solutions to be shaped only by perspectives of those in power is unlikely to yield effective adaptation results.

POSSIBLE DESIGN SOLUTION: DEMOCRATIC, PARTICIPATORY AND OPEN PROCESSES

- It matters who comes out on top, both in terms of taking home the prize, but also in terms of gaining wider support for their ideas. If prizes are to support adaptation for the most vulnerable, they need to provide a space for the perspectives of marginalised groups to shape the solutions that are supported.
- Prizes should be designed around participatory processes for deciding prize problems and judging which entries get funding. This means unpicking power relations throughout prize processes.
- Spaces should be made for prize designers, sponsors and participants to ask: Why are prizes being used? Are they fit for purpose? What assumptions are being made (e.g. pre-eminence of the private sector)? Whose realities are being considered? What solutions are being supported? And what implications this has for who will **benefit and how?**

GUIDE
Stage 1

For more on ensuring that the beneficiaries' needs are met.

CHALLENGE: PROMOTE EASY WINS OVER COMPLEX CHALLENGES

- Focussing on increasing competition to achieve quick, measurable results, cannot be assumed to effectively support adaptation. Adaptation is a continual, complex, context-specific and long term learning process. Some of the most important adaptation challenges are the most difficult to solve precisely because they involve governance or institutional processes that require structural changes, where market potentials are limited or non-existent, or require long term transformations of social and environmental systems.

POSSIBLE DESIGN SOLUTION: PARTICIPATORY DELIBERATION AND REFLEXIVITY

- Choosing prize problems and winning solutions should be a deliberative process, which includes voices of the climate vulnerable, and explores ambiguity and complexity.
- Prizes may work best if focussed on concrete, short term challenges closely linked to people's livelihoods and incomes; however this requires an awareness of how these are situated in relation to long term adaptation success (Table 3); i.e. effectiveness, robustness, flexibility, equity, economic feasibility, legitimacy and transformation potential.
- Long term monitoring and reflexivity can help understand both positive and negative unexpected outcomes of prizes in relation to characteristics of successful adaptation.
- Prizes can include, or be embedded within, knowledge exchange and social learning processes. Not only can these help build networks and share ideas, they can also facilitate long term reflexive processes to understand who is still not benefiting from adaptation funding, and how prizes might be able to address the gaps.

Even if possible, efforts to democratise prizes would be likely make them more time-consuming, and costly. Key questions that remain – and which will be explored in the prizes in Kenya and Nepal –therefore include:

- Given that driving motivations for running prizes are reducing risk to funders and finding solutions to problems of interest to funders, how likely is a prize like this to gain institutional support or the financial backing that it needs?
- Would donors be interested in prizes as, what would essentially attempt to be, a participatory funding mechanism?

Reflecting on the evidence, innovation prizes may hold significant promise as a complementary funding mechanism for adaptation to climate change. However, as this paper has noted, there are clear challenges and risks, to which the solutions are not yet adequately tested. Further research is needed in order to understand these challenges across different contexts, and to gain better empirical evidence of which strategies work to overcome them. The Ideas to Impact programme aims to contribute towards this effort. It is critical that future adaptation prizes also continue to hold learning and reflexivity as central to their aims, in order for prizes to be used as an effective and pro-poor funding mechanism.

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ANNEX A: INNOVATION PRIZES AND ADAPTATION: SYNTHESIS OF THE ANALYSIS

Characteristics	Opportunities and Constraints of Innovation prizes	Potential indicative remedies to overcome constraints	Intrinsic constraints remaining?
Effective	+ For donors: solution demonstrated before payment + Potentially wide range of solutions presented – Challenges of incorporating long term climate changes and adaptation complexity – PbR and high pressure of prize risks jeopardising feasibility of most effective solutions if they are resource constrained	• Participatory deliberative processes of problem framing and judging • Symmetrical weighting of framings and inclusion of marginalised perspectives • Long term reflexive monitoring and learning • Multiple stages of funding for incremental support and long term reflexivity • Inclusive prize design (of actors, perspectives, knowledges, options etc.)	• Limited incentive to incorporate long term perspectives
Recognises complex contexts	+ Judgement of panel allows for greater consideration of complexity than purely quantifiable measurements + Open to 'surprises' + Proactively seeks different perspectives and a range of solutions – Judgement rests on expert opinion – Tendency towards measurable, tangible results. – Prize platform design and problem narratives may limit potential solutions in unforeseen ways, and close down around interests of powerful, excluding certain forms of knowledge and perspectives of most marginalised – No inherent incentive in innovation prizes to incorporate long term perspectives – Focus on potential for targeting 'easy wins'	• Participatory deliberative processes of problem framing and judging • Symmetrical weighting of framings and inclusion of marginalised perspectives • Long term reflexive monitoring and learning • Multiple stages of funding • Inclusive prize design (of actors, perspectives, knowledges, options etc.) • Multiple awardees	• Potential for targeting 'easy wins' • Limited incentive to incorporate long term perspectives
Robust and flexible	+ Judgement of panel allows for greater consideration of complexity than purely quantifiable measurements + Open to 'surprises' + Proactively seek different perspectives and a range of solutions – Rests on expert opinion i.e. panel's judgement – Tendency towards exclusively measurable, tangible results and situations with low/ quantifiable risks, rather than exploring ambiguity of complex situations – Prize platform design and problem narratives may limit potential solutions in unforeseen ways, and close down around interests of powerful – No/limited incentive to incorporate long term perspectives	• Participatory deliberative processes of problem framing and judging • Symmetrical weighting of framings and inclusion of marginalised perspectives • Reflexive monitoring and learning processes included in prize design, and/or prize embedded within longer term learning processes • Multiple awardees and multiple stages of funding for incremental support and long term reflexivity • Inclusive prize design (of actors, perspectives, knowledges, options etc.) • Panel includes lay/local experts	• Limited incentive to incorporate long term perspectives
Equitable and legitimate	+ Potential for bypassing or supplementing existing funding sources in order to directly support most marginalised and climate vulnerable + Opportunity for network building and raising support for different narratives + Participants may be, or have close connections to, the ultimate beneficiaries of solution. + Proactively seeks different perspectives – Tendency to support already powerful narratives, thus reinforcing existing inequalities – Common focus on marketable products typically most benefits those with existing easy access to markets. – Prize platform design and problem narratives tend to be elite-defined (donors/sponsors) and may exclude certain forms of knowledge and perspectives of most marginalised. – Judgement rests on expert opinion – Tends to seek measurable, tangible results.	• Consciously address power relations throughout problem framing, judging and prize running • Participatory deliberative processes of problem framing and judging • Symmetrical weighting of framings and inclusion of marginalised perspectives. • Reflexive monitoring and learning in order to understand who benefits from the award and attend to longer term impacts on power relations • Inclusive prize design (of actors, perspectives, knowledges, options etc.)	• Inherently elite-driven? • Limited incentive to incorporate long term perspectives

Characteristics	Opportunities and Constraints of Innovation prizes	Potential indicative remedies to overcome constraints	Intrinsic constraints remaining?
Potentially transformative	+ Judgement of panel allows for greater consideration of complexity than purely quantifiable measurements + Open to 'surprises' – Transformational change only discernible over long time periods – Problem defined by sponsor/donor – Heavily influenced by powerful neoliberal, private sector focussed narratives – 'high-profile expert' judges may have vested interests – Limited inclusion of different forms of knowledge – High pressure of prize format may exclude marginalised actors – Potential for targeting 'easy wins' – Limited incentive to incorporate long term perspectives	• Participatory deliberative processes of problem framing and judging • Symmetrical weighting of framings and inclusion of marginalised perspectives • Embed long term reflexive monitoring and learning processes In prize design and implementation • Inclusive prize design (of actors, perspectives, knowledges, options etc.) • Consciously address power relations and challenge driving narratives	• Potential for targeting 'easy wins' • Limited incentive to incorporate long term perspectives
Low or no-regrets, economically feasible and cost efficient	+ For donors: solutions and impacts demonstrated before payment + For donors: leverages finance from prize participants and supporting networks + Can help leverage finance from other donors + Potentially wide range of solutions presented + Focusses on immediate gains – PbR and high pressure of prize risks jeopardising feasibility of resource constrained solutions – Problems and prize priorities defined by sponsors and/or influenced by powerful development narratives, thus potentially failing to address needs of most climate vulnerable/politically marginalised – Limited incentive to incorporate long term perspectives – Potential for un-recouped losses (financial and effort), among non-winning entrants. – Greater potential for duplication of efforts. – Prize format places resource pressures on prize participants. – Potential for targeting 'easy wins'	+ Multiple stages of funding + Inclusive prize design (of actors, perspectives, knowledges, options etc.) + Combine with grant funding + Careful prize design and problem definition to avoid duplication of efforts (in particular targeting marginalised actors and issues that fall through existing funding net) + Participatory deliberative processes of problem framing and judging	– Limited incentive to incorporate long term perspectives

ANNEX B: PRIZE OPTION 1 - CLIMATE INFORMATION FOR ADAPTATION

The climate information innovation prize will aim to stimulate development of models that make climate information more useable by the poorest and most vulnerable. The focus will be on articulating demand for climate information, rather than what often tend to be supply-side concerns such as the quality and availability of data and applications for climate risk information. The prize will focussing attention on incentivising user-led mechanisms to articulate demand in a way that is tailored in time, space and context, group those demands in ways that producers of climate information can respond to, and link these to other services provided by private or public sector actors. The solution could relate to, but must be able to go beyond SMS or mobile phone-based tools, be able to generate and articulate context-specific demand, and link actors and services. The prize, which we suggest locating in Kenya, will link innovators with climate science providers (notably Kenya Meteorological Services), other public agencies, private sector, NGO/civil society organisations, and academics.

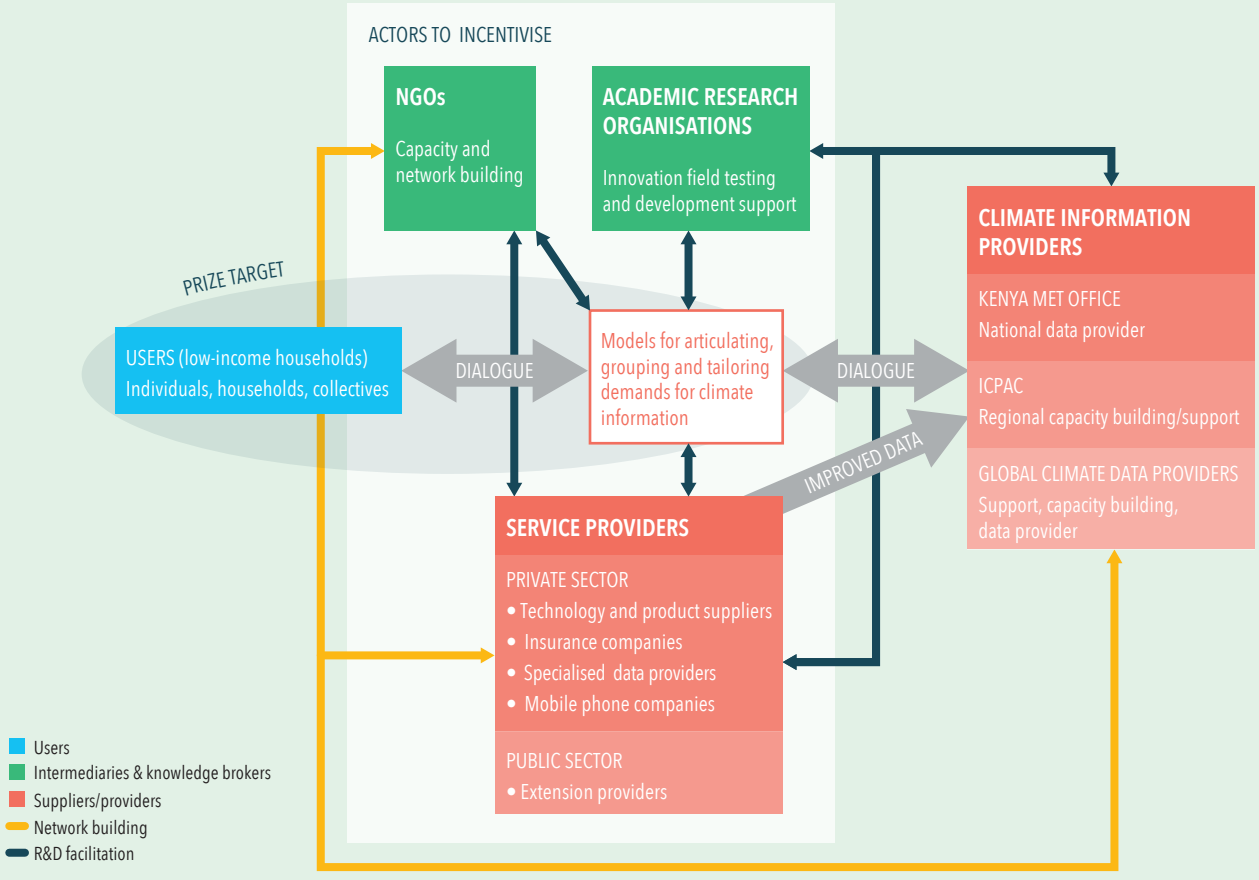
The innovation prize will differentiate itself from the wealth of other activity in this area by connecting actors (science, government, private sector, intermediaries) in a way that leaves those living in poverty in control over the information that is generated, and services provided.

This prize thus sits between other efforts – and prizes – on development of user-friendly tools for using climate information (including 'hackathons' and prizes for development of mobile phone apps), and community based work to promote co-production of knowledge or increase uptake of climate information, including work to combine indigenous and scientific forecast information (e.g. Newsham et al. 2011). The prize seeks to address the gap in usability of climate information by focussing attention on the users, their needs and demands. Usability can be seen as a function of three interconnected factors, namely fit (how knowledge fits decision making), interplay (the interplay between new knowledge and other types of knowledge) and interaction (the level and quality of interaction between producers and users) (Lemos et al 2012).

The model for relaying information could be individual, household level or community based, but it should be designed in a way that works with local social institutions.

In order to solve the prize problem a clear articulation of demands for climate information is needed, in a form that connects usefully to service providers. Many would argue that a key problem is in users' perception and understanding of forecasts and what they mean. For example, statements like "40% probability of below normal rainfall", or "250 mm of rain" do not necessarily mean a lot to users. Arguably, if users do not understand climate information, they cannot know what they can (or cannot) ask for, thus obscuring the real demand for climate information among users. A challenge is to find a way to articulate climate information in a way that can connect end-users to providers of climate information (primarily Meteorological offices, but also civil society/private sector intermediaries), as well as those other services that could add value to the climate information or make people better able to respond to climate risk (public or private sector providers, or civil society intermediaries).

FIGURE 1: A PRELIMINARY OUTLINE OF ACTOR NETWORKS WITHIN THE ADAPTATION INNOVATION ECOSYSTEM; ACTORS THAT A PRIZE WILL TARGET DIRECTLY AND THOSE THAT IT WILL INCENTIVISE TO CONNECT



ANNEX C: PRIZE OPTION 2 – ADAPTATION AT SCALE

The *Adaptation at Scale Prize* will be a 3-year community prize. It will reward and incentivise best practice innovation system building processes that link communities and community based actors with wider networks for bringing local adaptation innovations to scale. The prize is intended to contribute to building and strengthening local adaptation innovation capabilities, which in turn underpin the adaptive capacity of people, households and communities. In order to align with the priorities and resources of IDRC, the proposed implementation partner, it is suggested that the prize be focussed on Nepal.

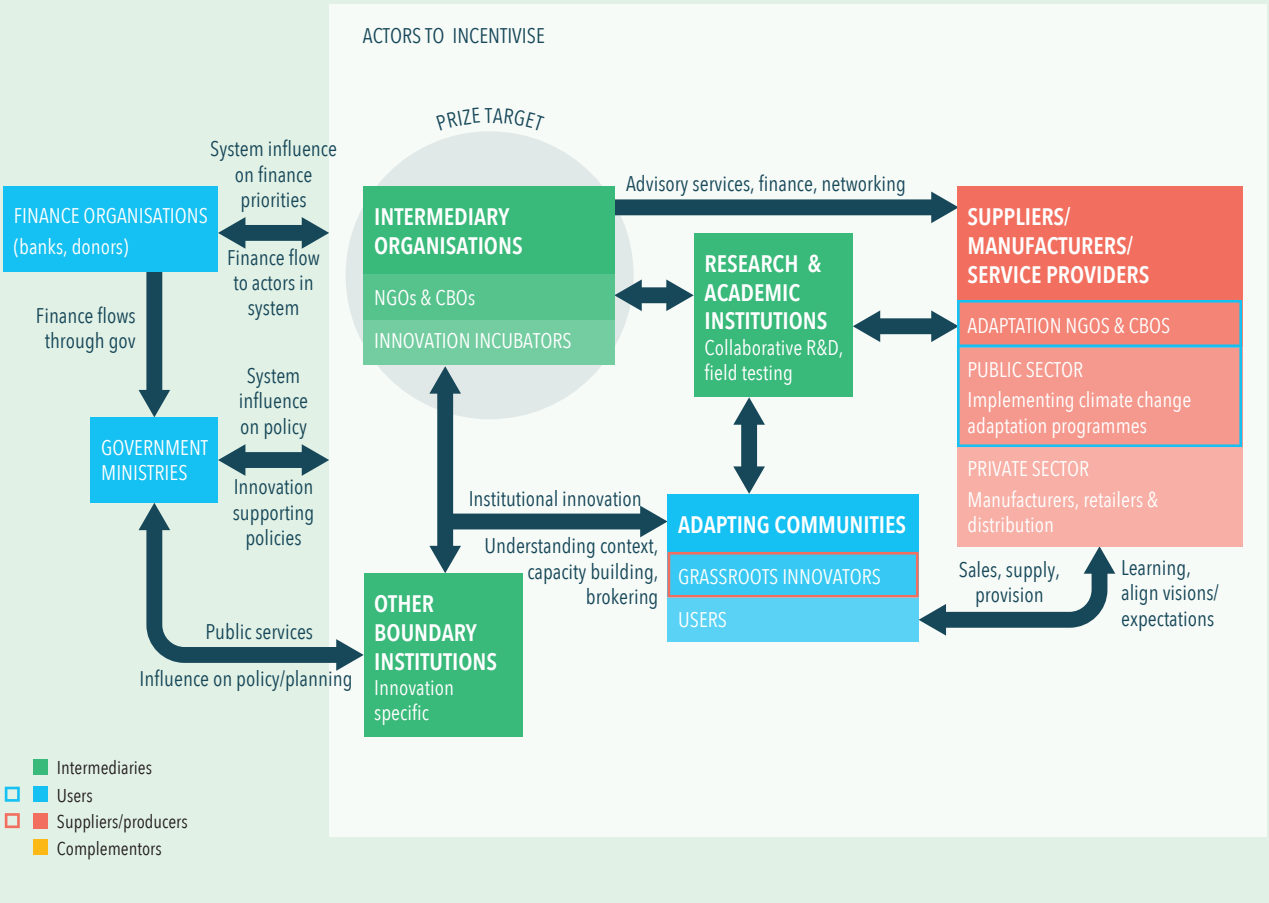
The envisaged role of the innovation prize is to promote models for supporting and strengthening productive and innovative capabilities for adaptation innovation development. A particular focus will be on the role of intermediaries. The prize will incentivise sustainable private sector involvement in facilitating this capability building. Crucially, the prize aims to ensure that community benefit and rights to intellectual property are secured, especially where the solutions developed are the result of grassroots innovation.

Drawing on the socio-technical transitions literature, including the above framework by Byrne et al. (2014), Ockwell (2014) recommends four policy goals for building innovation systems and technological capabilities. These goals will form the four key objectives of this prize, and it is suggested that prize applicants would demonstrate successful contributions to at least two of the following:

- Build networks of diverse stakeholders working proactively together
- Foster and share learning from research and experience
- Promote shared visions among stakeholders
- Support diverse experimentation with technologies and practices.

The prize will be implemented in Nepal. The country was chosen due to the large amount of community-focussed adaptation initiatives and actors, including government, donors and non-government actors. Notably, the government has developed about 100 Local Adaptation Plans of Action (LAPA) at district levels, and a number of community adaptation plans and risk management plans are being developed at lower governance levels. A geographic and/or regional focus is important for this prize for two main reasons: first because it is envisaged that the prize will need close engagement with particular communities, and secondly, because the prize would need a level of comparability among the proposed solutions.

FIGURE 2: PRELIMINARY ACTOR NETWORKS WITHIN THE ADAPTATION INNOVATION ECOSYSTEM; ACTORS THAT THE PRIZE WILL TARGET DIRECTLY AND THOSE THAT IT WILL INCENTIVIZE TO CONNECT



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