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Population and Reproductive Health in National Adaptation Programmes of Action (NAPAs) for Climate Change

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Population Action International uses research and advocacy to improve access to family planning and reproductive health care across the world so women and families can prosper and live in balance with the earth. By ensuring couples are able to determine the size of their families, poverty and the depletion of natural resources are reduced, improving the lives of millions across the world.

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CONTENTS

ACRONYMS

CBD	Convention of Biological Diversity
CBO	Community Based Organization
GEF	Global Environment Facility
HDR	Human Development Report
ICPD	International Conference on Population and Development
LDC	Least Developed Country
LDCF	Least Developed Country Fund
LEG	LDC Expert Group
NAPA	National Adaptation Programmes of Action
NGO	Non Governmental Organization
ODA	Official Development Assistance
PIF	Project Implementation Form
PPG	Project Implementation Grant
PRS	Poverty Reduction Strategy (Paper)
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
UNFCCC	United Nations Framework Convention on Climate Change
UNITAR	United Nations Institute for Training and Research
WGF	Water Governance Facility

EXECUTIVE SUMMARY

Adapting to climate change will entail a variety of responses, including policies to improve management of climate related risks by enhancing adaptive capacity while easing pressure on resources. The pressure on resources has been linked to a number of causes, key among them population dynamics. Thus, adaptation policies that consider interventions aimed at slowing the rate of population growth will yield a "win-win" opportunity, address adaptation needs in the short term while building long-term sustainability by reducing pressure on the environment.

This paper reviews 41 National Adaptation Programmes of Action (NAPAs) submitted by Least Developed Countries (LDCs) to the United Nations Framework Convention on Climate Change (UNFCCC), to assess the NAPA process and identify the range of interventions included in countries' priority adaptation actions. The review addresses how population issues and reproductive health/family planning (RH/FP) are addressed as part of the LDCs' adaptation agenda.

The review found near-universal recognition among the NAPAs of the importance of population considerations as a central pillar in climate change adaptation. Among the 41 NAPAs, 37 link high and rapid population growth to climate change. However, this appreciation is not matched with a proportional identification of adaptation interventions; indeed only six NAPAs clearly state that slowing population growth or investments in RH/FP should be considered among the country's priority adaptation actions. Furthermore, among those that make this case, only one actually proposes a project with components of RH/FP among its priority adaptation interventions. Most NAPAs focus priority attention on projects to promote food security and water resources.

The low priority of health of projects to address population projects may reflect the NAPA guidelines, which in spite of their recommendation of the importance of aligning projects to long-term sustainable development planning, place greater focus on meeting immediate needs through short-term projects.

This review leads to five recommendations:

- The favoring of single sector projects within the NAPAs over integrated programs does not reflect people's lives. Strategies for adaptation should reflect a multisectoral approach that recognizes that people's lives are not lived in single sectors. People deal simultaneously with food, water, livelihoods, health, and education, among other issues, including fertility. Wherever appropriate, projects or programs funded through NAPAs should be integrated across sectors to avoid "winner" and "loser" sectors.

- The focus of NAPAs on short term projects over linkages with development strategies that address medium and longer-term issues is short sighted. Therefore, a mix of short- and longer-term projects that incorporate participation across development sectors to save lives and strengthen livelihoods is important to ensure a wide range of adequate responses in adapting to climate change.

- NAPAs should translate the recognition of population pressure as a factor related to countries' ability to adapt to climate change into relevant project activities. Such projects should include access to RH/FP, in addition to other strategies such as, for example, girls education, women's empowerment, and a focus on youth, that lead to lower fertility.
- Countries that have already clearly identified RH/FP projects in their NAPAs should expedite the development and implementation of these projects.
- Attention to population and integrated strategies should be central and aligned to longer-term national adaptation plans and strategies currently being discussed as part of enhanced action for adaptation.

INTRODUCTION

Perhaps the greatest irony of climate change is that countries that have had the least to do with growing emissions are likely to experience the most severe impacts of climate change. Due to the persistence of carbon in the atmosphere, global warming is inevitable under any scenario produced by the Intergovernmental Panel on Climate Change in the coming decades and global greenhouse gas emissions will continue to increase at least up to the year 2020 (IPCC 2007). While mitigation is critical, there is growing consensus that helping affected countries and people adapt to climate change is also important since the impacts of climate change are already being felt, and will worsen in the future [IPCC 2001, Huq et al. 2003, AIACC 2004, UNFCCC 2007, UNDP 2008, FAO, 2008, UNFCCC 2009).

While most international focus is on mitigation of climate change, including through well-publicized international conferences and agreements such as the Kyoto Protocol, the international community has also developed mechanisms to address adaptation. As such, adaptation as a response to the climate change problem has gained importance in the international policy agenda (Huq and Reid 2007). The Bali Action Plan, an addendum to the United Nations Framework Convention on Climate Change (UNFCCC), recently identified the need for enhanced action on adaptation (UNFCCC 2007).

A large share of the population in the developing countries is already vulnerable and living in marginalized areas, which are susceptible to climate variation and extreme weather events. Population growth is occurring most rapidly in the developing world, increasing the scale of vulnerability to projected impacts of climate change. In 2005, the average population density in developing countries was 66 people/km2, compared to 27 people/ km2 in developed regions (Jiang and Hardee 2009). More than half (27) of the (49) Least Developed Countries (LDCs) are projected to at least double their current population by 2050, based on the UN's most recent population projections. Human population growth will increase vulnerability to many of the most serious impacts of climate change. Scarcity of food and water, vulnerability to natural disasters and infectious diseases, and population displacement are all exacerbated by rapid population growth (Jiang and Hardee 2009, GLCA 2009).

Recognizing that LDCs, including Small Island Developing States, are among the most vulnerable to, and with the least capacity to cope with, extreme weather events and the adverse effects of climate change, National Adaptation Programmes of Action (NAPAs) were established as part of the Marrakech Accords of the 2001 UNFCCC Conference of Parties (COP). NAPAs were intended to provide assistance to LDCs in developing plans to address the adverse effects. NAPAs, which are supposed to link with national development processes, provide an avenue for LDCs to identify priority activities that respond to their urgent and immediate adaptation needs.

What is the experience with NAPAs to date? What interventions are being included in NAPAs? Is population and reproductive health/family planning (RH/FP) addressed in NAPAs, including through projects proposed by countries? This paper starts with a description of the NAPA process and a discussion on their development, preparation and financing. It then analyzes how population factors are addressed in NAPAs and the range of adaptation interventions identified and prioritized by countries, including RH/FP. The paper ends with a discussion of the challenge of addressing population and RH/FP through the existing NAPA process and a

discussion of how NAPAs are aligned with national development processes. Finally, the paper makes suggestions for the NAPA process to include more integrated programming that links with development strategies.

2. METHODOLOGY

The 41 NAPAs that have been submitted as of May 2009, which are listed in Table 1, were included in the analysis. Relevant information on all NAPAs and projects was assembled by the authors into an Excel database. Analysis focused on this database and on content of the NAPAs and projects. This information was supplemented by a review of literature on NAPAs, adaptation, and the relationship between population and climate change.

3. DEVELOPMENT, PREPARATION AND FINANCING OF NAPAs

Among the 49 eligible LDCs, 41 (85 percent) have submitted their NAPAs to the UNFCCC.[1] In addition, three NAPAs are in the final stages of preparation and are expected to be completed by the second quarter of 2009. Finally, preparation process has been initiated or on-going in four countries and the NAPAs expected to be completed before the end of 2009. The current status of NAPAs preparation is presented in Table 1. The Annex contains more detail about the NAPA process.

According to the UNFCCC, the rationale for developing NAPAs rests on high vulnerability and low adaptive capacity of LDCs, many of which count among some of the world's poorest. This demands in turn the immediate and urgent support for projects that allow for the adaptation to the adverse effects of climate change. "As such, activities and projects proposed through NAPAs are those whose further delay could increase vulnerability, or lead to increased costs at a later stage." (UNFCCC/LEG 2002, 1) Acknowledging that countries need to have national adaptation plans which identify and prioritize not only the urgent and immediate needs but also the medium and long-term adaptation needs, longer-term national adaptation plans are part of the on-going UNFCCC negotiations.[2] It is envisaged that NAPAs would fit into the longer-term national plans of adaptation.

NAPAs also provide an avenue for linking issues associated with implementing the three Rio Conventions on environment.[3] An important guiding principle in the preparation of NAPAs is that the process ought to be a bottom-up, participatory approach that involves a broad range of stakeholder groups and focuses on local communities, considering their current vulnerability and urgent adaptation needs (UNFCCC/LEG 2002).

Following NAPA guidelines, countries undertake four steps to develop their NAPAs, described in more detail in the Annex: 1) establish a NAPA organization that should include local communities and representatives from various sectors (e.g. agriculture, water, energy, forestry,

1 The Convention entered into force on 21 March 1994 sets an overall framework for intergovernmental efforts to tackle the challenge posed by climate change. Under it, governments gather and share information on greenhouse gas emissions, national policies and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change. It enjoys near universal membership, with 192 countries having ratified it to date.

2 Longer-term national adaptation plans are part of the UNFCCC discussions on enhanced action on adaptation taking place under the "Ad Hoc Working Group on Long-Term Cooperative Action" (AWGLCA) and featured at its 6th Session held in Bonn, June 2009.

3 These are: Convention of Biological Diversity (CBD), United Nations Commission for Combating Desertification (UNCCD), and United Nations Framework Convention on Climate Change (UNFCCC).

health and tourism); 2) synthesize available information on impacts, coping strategies, national and sectoral development plans to provide a baseline measure of vulnerabilities; 3) identify projects through consultations with stakeholders and develop a list of priority projects; and 4) submit the NAPA to the UNFCCC. Once a NAPA has been submitted to the UNFCCC secretariat, the LDC Party can start the process of implementation under the LDC Fund (LDCF), which is managed by the GEF. To initiate implementation, an LDC Party prepares a concept note and requests an implementing agency of the GEF to assist it in submitting a proposal for funding to the GEF under the LDCF. The GEF agency then works with the country to develop the concept into a full project that is ready for implementation under the GEF project cycle.

Osman-Elasha and Downing (2007) assessed country-level NAPA process based on the 14 NAPAs submitted to the UNFCCC by April 2007, half of which were from African LDCs. The analysis built on interviews with members of NAPA teams, and the most important conclusion was that the NAPA preparation needs to be viewed as a process and not as an end product. They also concluded that the main strengths of the NAPA process were the creation of awareness and sense of ownership amongst various stakeholder groups at different levels, from policy makers to the general public at the local level. The major weaknesses identified during the process of preparing the NAPAs were institutional barriers that hindered the free exchange of information including communication problems between central offices and states. They found that NAPA coordination teams are mainly found either under the umbrella of environment or the meteorology departments and mostly represent the UNFCCC Focal Points. This composition of the teams has implications for the content of the NAPAs.

Financing is a key component of NAPAs.[4] Although estimates of the level of funding required to assist developing countries to adapt to the impacts of climate change vary widely , there is general agreement that the cost to the public and private sector could be in the range of tens of billions of dollars per year. The total estimated cost of implementing the 448 projects prioritized by the 41 NAPAs is over $800 million[5] yet currently the NAPAs Fund, the Least Developed Country Fund (LDCF), has mobilized about US$ 176 million, hence a huge disparity between the financial needs of NAPAs and the mobilized financial resources. Furthermore, there is consensus that resource shortfalls hinder funding of NAPAs and that countries are generally underestimating the costs of adaptation (Agrawala and Fankhauser 2008, CCCD 2009). Article 4.4 of the UNFCCC commits developed countries to assist developing country Parties particularly vulnerable to the effects of climate change to meet the costs of adaptation. This assistance is understood to come in the form of new and additional funding (i.e. beyond what developed countries provide as overseas development assistance or ODA).

4. HOW NAPAS CHARACTERIZE POPULATION AS A FACTOR RELATED TO CLIMATE CHANGE

Analysis of NAPAs to explore how they describe population dynamics and climate change showed that most NAPAs identify population and health issues as relevant for climate change adaptation strategies.

4 The estimated annual costs of adaptation (US$) range from: 31 billion (Stern Review 2006), 34 billion (World Bank 2006), 55-135 billion by 2030 (UNFCCC 2007), 50 billion (Oxfam 2007), to 89 billion by 2015 (UNDP 2007).

5 The total cost of implementation of all the NAPAs is currently estimated at US$ 2 billion by Oxfam and the International Institute for Economic Development (IIED), revised up from the original US$ 1.6 billion. This was based on an extrapolation of the costs of submitted NAPAs.

37 NAPAs explicitly make linkages between climate change and population and identify rapid population growth as a problem that either aggravates the vulnerability or reduces the resilience of populations to deal with the effects climate change (Table 1). Although the different NAPAs have diverse concerns, the effects of rapid population growth have been linked with climate change through five factors: food insecurity; natural resource depletion/degradation; water resource scarcity; poor human health; and migration and urbanization.[6]

Population pressure and food insecurity

Thirty-five NAPAs link high population growth, mostly in union with other factors, to food insecurity. Population pressure contributes to food insecurity by increasing a country's vulnerability to food shortages in the event of occurrences such as droughts and floods and by increasing demand for food and putting additional pressure on the food supply system. Food insecurity is also manifested through diminishing food resources, for example fish stocks as reported in Gambia, Bangladesh, Kiribati, Solomon Islands, and Tuvalu.

Population pressure is more pronounced in certain areas which are more susceptible to climate change events such as droughts and floods. For instance, NAPAs recognize high populations residing in low-lying coastal areas (Samoa, Solomon Islands), hilly or mountainous areas (Tuvalu), and on scarce arable land (Uganda, Central Sudan along the Nile River).

Population pressure and natural resource depletion/degradation

Natural resource depletion or degradation is a central theme of the NAPAs and is often linked to population pressure. Excerpts from selected NAPAs indicate that rapid population growth: "*results* in the imbalance of the already limited resources and the threat of climate instability" (Comoros), "*is a cause* of decline in resources base" (Ethiopia), "is *partly contributing* to unsustainable natural resource use" (Gambia), "*linked to* environmental resource stress," and "*leads to* excessive fishing and to structural changes to the shoreline" (Kiribati), "*led to* ecological imbalances expressed by the deterioration of livelihoods" (Niger), "an important factor of pressure on the environment" (Haiti), "*placing pressure* on sensitive environments"(Tuvalu), and "*tend to* degrade highland ecosystem" (Uganda).

Population pressure is directly linked to deforestation in the NAPAs of Sierra Leone, Solomon Islands, Rwanda, Mozambique, and Uganda. The Uganda NAPA goes further to associate high population density with observed biodiversity loss, and especially the disappearance of medicinal plants and pasture.

Population pressure and water resource scarcity

Population pressure is deemed to increase the demand for water and further reduce its future availability. In Sudan, for example, "unfavorable weather conditions combined with population growth has rendered the Setaite River incapable of sustaining the town of Gedarif." Water scarcity is identified as a common problem in Tuvalu, and is associated with the growth

6 This classification was guided by unpublished analysis on population and NAPAs by MSI and PSN (2009) characterizing population as affecting climate change primarily in three ways, "(1) by acting in tandem with climate change to deplete key natural resources, for example through soil erosion and deforestation, (2) by causing a significant escalation in demand for resources, such as fresh water and food, that are declining in availability due to climate change, and (3) a heightening of human vulnerability to the effects of climate change, including by increased pressure on human health and by forcing more people to migrate and settle in areas at risk of extreme weather events." Page 7.

in population and urbanization. The same is true in Vanuatu, whose NAPA acknowledges that population growth, particularly in urban areas, has already placed pressure on water resources and supply services and that climate change is likely to increase demand for water while impacting on both quantity and quality of water resources. Population increases in urban centers have put pressure on groundwater, as noted by Zambia's NAPA.

Population pressure and poor human health

A number of NAPAs link population and climate change to risks to human health. Kiribati notes that the spread of water borne diseases is associated with high population density in urban areas. Maldives' NAPA asserts that "the vulnerability to climate change related health risks is further compounded by local characteristics such as the high level of malnutrition in children, accessibility and quality of healthcare, high population congestion and low income levels". In Tuvalu, the NAPA contends that "overpopulation" increases the risks of water borne diseases. In Uganda, the NAPA notes, heavy rainfall has led to flash floods and resulted in the outbreak of waterborne diseases such as diarrhea and cholera, while prolonged dry spells have resulted in outbreaks of respiratory diseases. Population pressure increases the country's vulnerability to these diseases and its ability to cope with increased health costs.

Population pressure, migration and urbanization

Eighteen NAPAs link climate change to another major demographic concern, migration. Climate change imposes additional burdens upon communities already facing migratory challenges caused in part by rapid population growth. The migrating populations, either in search of new agricultural lands and pastures or urban areas, are already economically vulnerable and this vulnerability is increased since in most of the cases the zone that receives them is often faced with a high risk economic, social, and environmental vulnerability.

The migration of people and cattle, noted as one of the traditional adaptation strategies in Burundi and Niger, is identified as one of the real and potential adverse impacts of climate change resulting from reduced rainfall. The migration of at least 10% of the population and a loss of cultivable lands is an anticipated impact of climate change in Comoros while in Tanzania people living along the coast will be forced to migrate to other areas, something which may cause social conflicts and environmental degradation due to rapid population growth and utilization of resources.

According to Rwanda's NAPA, there is a migratory dynamic of people from the most densely populated provinces in the North and the South towards the least populated provinces especially in the East and South East. The migrating populations are already economically vulnerable and this vulnerability is increased by the high risk of drought and desertification in the recipient areas.

In Burkina Faso, frequent droughts have led to the migration of a part of the "Central Plateau" population to the West and the East of the country. These migrants, looking for better life conditions, have greatly contributed to the degradation of the areas that receive them.

With climate change negatively impacting rural livelihoods, migration from rural to urban areas is increasingly likely to become the favored adaptation strategy of the mobile rural poor. This will further exacerbate the problem of people living in vulnerable urban hazardous environments.

Climate change will have a significant impact on urban settlements, especially in the face of increasing population and continual urban migration. Samoa's NAPA notes that climate change will have a significant impact on urban settlements, especially in the face of increasing population and continual urban migration. Poor drainage systems, lack of strategic planning, and an increasing urban population will only exacerbate the impacts of climate change on urban settlements.

In Djibouti, the NAPA notes, a process of massive migration has taken place. Unfavorable climatic conditions have led to migration from rural areas to "new urban areas" where previously nomadic populations are being forced to settle around water points established by the state. "This new urban lifestyle has led to the perturbation of previously established natural equilibriums." Rapid urbanization is "paralleled by clearing of forests and woodlands, expansion of cultivated area, over-fishing of particular species and severe coastal erosion" in Gambia.

The Solomon Islands' NAPA asserts that with an increasing population, waste management problems are an issue of increasing concern. In Sao Tome and Principe, the relocation of the population at risk of food insecurity and landslides in Malanza, Santa Catarina and Sundy was identified as a priority adaptation activity.

In summary, NAPAs are quite thorough in their treatment of the effects of population and climate change although analyses of demographic factors, including age structure and household size, are not adequately addressed. A number of researchers have identified analysis of these demographic factors as important for understanding the links between population and climate change (Jiang 1999; Jiang and O'Neill 2004, Liu et al. 2003; Mackellar et al. 1995; Prskawetz, et al. 2004, van Diepen 2000).

Given that population is highlighted in most NAPAs, it follows that projects to address the effects of rapid population growth are included among priority projects. The next section examines which sectors and projects were prioritized in the NAPAs.

5. SECTORAL CLASSIFICATION OF SUBMITTED NAPA PROJECTS AND PRIORITY PROJECTS

The total number of identified priority adaptation projects in the 41 submitted NAPAs is 448, although the number varies widely among the countries (Table 1).Using the same classification as the UNFCCC (UNFCCC 2009), identified projects fall into 12 broad categories, as shown in Table 2. Some projects and activities are difficult to classify into any one sector, therefore the UNFCCC includes them in a cross-sectoral category. In the NAPA preparation process, projects are ranked by the stakeholders in order of importance subject to selected criteria, including the expected outcomes of the projects, for example, mitigating adverse effects of climate change, poverty reduction to enhance adaptive capacity, synergy with multilateral environmental agreements, and cost effectiveness (UNFCCC/LEG 2002).

Figure 1 shows the distribution of projects by sector. Half of the projects fall into three sectors - food security, terrestrial ecosystems and water resources. This can be explained by the fact that agriculture, livestock, fisheries, and other income generating activities rely on terrestrial ecosystems and water resources which important for feeding and sustaining livelihoods for millions of people. Health sector accounts for around 7 percent of the total projects, after food security (21%), water resources and management (16%), terrestrial ecosystems (15%), cross sectoral (9%), and coastal zones and marine ecosystems (8%) (Figure 1). In addition, two projects in the cross-sectoral sector have health sector components, in Sudan and Solomon Islands. The fewest identified priority projects are in tourism, insurance, and energy sectors.

All the 41 countries identify the health sector among the most vulnerable sectors to climate change. However, less than half of the countries (18) have proposed a single project in the health sector. In terms of priority project ranking, projects in the health sector are generally not ranked among the first five priorities in any of the NAPAs (Figure 2). Indeed, the ranking of the priority projects follows the same pattern as the distribution of the projects by sector. Health sector projects would therefore be ranked 6th in terms of priority.

In an analysis of 14 NAPAs by Osman-Elasha and Downing (2007), a major weakness identified during NAPAs preparation was institutional barriers that hindered free exchange of information including communication problems between central offices and regions or provinces. The authors found that NAPA coordination teams are mainly found either under the umbrella of environment or the meteorology, departments that also mostly host the UNFCCC Focal Points. This composition of the teams has implications for the content of the NAPAs and may explain the low priority given to health – and by extension, RH/FP.

6. REPRODUCTIVE HEALTH/FAMILY PLANNING AND ADAPTATION STRATEGIES IN NAPAS

Since most of the NAPAs identify rapid population growth as an integral challenge to adapting to climate change, it follows that slowing population growth should be a key component in dealing with effects of climate change. Reduced population pressure can ameliorate some of the effects of climate change and/or increase the ability of countries to adapt. RH/FP has been recognized as one of many strategies that can slow population growth and reduce demographic pressure (Ross 2004; USAID Health Policy Initiatives 2006). Yet, as mentioned above, there is limited identification of adaptation projects in the health sector, under which RH/FP broadly falls. In addition, the identified health sector projects are not ranked favorably among the priority actions, and priority actions are more likely to be implemented.

Only six NAPAs, described below, clearly state that slowing of population growth or investments in RH/FP should be considered among the country's priority adaptation actions (Table 1). These countries include Comoros, Ethiopia, Gambia, Kiribati, Zambia and Uganda. Furthermore, among those NAPAs that clearly make this case, only Uganda actually proposes a project with components of RH/FP among its priority adaptation interventions. Another project with RH/FP components is proposed by Sao Tome and Principe, whose NAPA neither links population pressure to climate change nor to RH/FP. In both Uganda and Sao Tome and Principe's NAPAs, RH/FP is integrated with other priority adaptation interventions.

Comoros' NAPA notes that population growth is a source of vulnerability, and credits family planning programs for the reduction of the population growth rate. Even though the NAPA establishes clearly the linkage between climate change and FP policies, the NAPA team fails to identify a priority project with RH/FP programs.

In **Ethiopia**, high population growth is identified as one of the causes of vulnerability to climate change. During the NAPA process, mainstreaming family planning into agriculture was proposed in the regional consultative workshops as an adaptation strategy. Although the NAPA identifies mainstreaming of family planning into agriculture as one of the potential cross-sectoral adaptation options, there is no component of RH/FP in any of the proposed priority agricultural projects.

In **Gambia**, partly as a result of population pressure, the natural environment has taken the full brunt of unsustainable use of natural resources, as seen in the negative effects on the forest cover, rangelands, aquatic and marine organisms, as the NAPA reports. Taking cognizance of this fact, the NAPA proposes as a strategy for adaptation the stabilization of rural populations. However, none of the identified priority adaptation actions have RH/FP components.

Kiribati's NAPA mentions that the country has population policies to encourage family planning although these policies are yet to have a substantive effect. In the final ranking of projects, the NAPA Team clearly identified family planning as an adaptation strategy. Surprisingly, the identified priority projects did not have a single RH/FP project among the priority projects, despite the explicit mention. However, the document distinguishes between short-term adaptation, whose focus is on urgent and immediate needs (through the NAPA), and long-term strategic planning for adaptation which is addressed by an existing project outside the NAPA, the Kiribati Adaptation Project, which has "support for population and resettlement" as one of its programs.

Sao Tome and Principe's NAPA mentions the vulnerability of its essentially young (79% younger than 35 years) and predominantly urban population, manifested through frequent migration among the coastal populations due to an increase of floods and coastal erosion. However, the NAPA neither acknowledges population pressure nor links it to climate change nor to RH/FP. Yet it is one of the few countries to identify a project with components of RH/FP. The project, ranked 3rd and titled "Communication Action for Behavior Change" has the objective of informing and sensitizing the population on behavior change for the prevention of diseases related with water, of vector transmission and other problems of health linked to climate change. It specifically includes a component on family planning counseling.

The **Uganda** NAPA makes a clear link between population and climate change and notes the need for family planning. The document identifies a negative social coping strategy, "famine marriage," where in times of food crisis, some parents distressfully marry off their daughters to secure dowry for survival. This fuels early marriages, dropping out of school and exposure to sexually transmitted infections and related reproductive complications. The NAPA team identifies the "Community Water and Sanitation Project," which includes slowing population growth through family planning as part of a scaled up poverty alleviation program. However, the project profile does not mention the specific interventions in RH/FP, perhaps anticipating that NAPA project activities would link with RH/FP services in the country.

Zambia's NAPA reiterates the importance of meeting the goals of the Fifth National Development Plan (FNDP) 2006 -2010, which includes integrated reproductive health with the objective of reducing the maternal mortality ratio. Despite this clear appreciation of the role of RH/FP in the NAPA and the linkage to the national development plan, the project team does not propose a project specific to RH/FP.

In summary, as shown in Figure 3, although population is mentioned as an important factor related to climate change in 37 NAPAs, only six NAPAs explicitly state that slowing population growth or meeting an unmet demand for RH/FP should be a key priority for their adaptation strategy, and only two NAPAs propose projects that include RH/FP. Neither of the projects has been funded.

7. ALIGNMENT OF NAPAs WITH NATIONAL DEVELOPMENT PLANNING PROCESS

Since many of the adaptation needs identified in the NAPAs are directly related to development issues, the effectiveness of NAPAs could be enhanced by integrating them into current development plans, policies and programs. One guiding principle in the preparation of NAPAs is that they should be mainstreamed into a country's development planning processes, including Poverty Reduction Strategies (PRSs). Ensuring that adaptation strategies align with national development processes could link development and climate change agendas. This is important since national development plans and strategies provide a framework for domestic policies and programs, as well as for foreign assistance, with the overall aim of reducing poverty (Bojo et al. 2004). Theoretically NAPAs and PRSs should have embraced common projects, built upon both short term adaptation interventions and longer term development strategies (McGray et al. 2007).

A brief analysis of NAPAs reveals that even though all the documents have a section on the linkage of the NAPA with national development plans, they treat and present this linkage differently. In many cases NAPAs and national development planning process are not well aligned. We identify two categories under which the NAPAs fall, in relation to alignment with national development planning processes. The first group, consisting of about 31 countries (76%), has NAPA documents which do not clearly demonstrate how they are linked to the national development processes. These documents only mention that the NAPA "was created on the basis of…", "has established strong linkages with…", or "supports…" the national development goals and strategies as espoused in the country's development plans without articulating any clear linkages.

The second category consists of 10 countries (24%) whose documents clearly establish the linkages between the NAPA and national development plans, complete with detailed analysis of the identified vulnerabilities and proposed projects. Some of these contain matrices of analyses showing how the NAPA fits into specific national development and sectoral development goals and even in specific programs and projects (Table 1).

Consensus is emerging about the disconnect between NAPAs and PRSs. A recent study commissioned by the GEF shows that mainstreaming adaptation into development agendas has not yet penetrated the world of PRSs (Hedger et. al 2008). According to the report, UNFCCC

workshops have identified that crucially little work has been undertaken to integrate adaptation into development plans or within existing poverty alleviation agendas.

A review of 19 PRSs in the 2007/2008 Human Development Report (UNDP 2007) found that although most of them identified climate events and weather variability as important drivers of poverty and constraints on human development, only four countries identified specific links between climate change and vulnerability. A similar observation is made by UNDP's Water Governance Facility WGF (2009), which notes that a major weakness of NAPAs is the lack of clear linkages between their content and that of PRSs and other national development strategies (WGF 2009).

This disconnect may be due, in part, to the structural differences between development plans and NAPAs, both of which ought to be undertaken in a participatory process, with a multidisciplinary approach and a sustainable development perspective. Although the sustainable development approach, capturing the social, environmental and economic pillars, implies a longer-term perspective, the guidelines for NAPAs to be "action-oriented" and "set clear priorities for urgent and immediate adaptation activities" (UNFCCC/LEG 2002:2) imply a shorter term perspective. It is important that NAPAs not only take into account short-term projects but also recognize the need for a coherent long-term adaptation strategy to which the implementation of the identified projects will contribute (WGF 2007).

NAPAs are, by definition, project-oriented. UNDP finds that most NAPAs focus entirely on small-scale project-based interventions to be financed or co-financed by donors which has resulted in "an upshot of a project-based response that fails to integrate adaptation planning into the development of wider policies for overcoming vulnerability and marginalization" (UNDP 2007: 188). WGF (2009) corroborates this view by asserting that NAPAs generally focus on projects and are not very often successful integrating long-term development objectives. McGray et al. (2007) states that disconnect between NAPAs the PRSs arises from the fact that PRSs are prepared by ministries of finance or planning which are often entirely disconnected from the environment ministries most closely associated with the NAPA process. Osman-Elasha & Downing (2007) suggest viewing NAPAs as important for raising awareness, at least among national stakeholders, and putting climate change adaptation on the development agenda.

8. THE NEED FOR AN INTEGRATED APPROACH TO ADAPTATION STRATEGIES

Although a majority of the NAPAs identify rapid population growth as integral key component of vulnerability to climate change impacts, few choose to prioritize NAPA funds for RH/FP programs. Faced with multiple competing development priorities and climate change challenges, countries prioritize projects that are geared towards the alleviation of food insecurity and water resource scarcity, which are two key problems facing LDCs. Yet, in the LDCs, unmet need for family planning, or the percentage of women who want to stop having children or who wish to wait at least two years before having another child, is high; Yemen has the highest (50.9%) and 80 percent of the countries have over 20 percent unmet need (Table 1). Mainstreaming RH/FP into projects designed to address food insecurity and water scarcity can help slow population growth and alleviate pressure on limited food and water resources.

There is also a likelihood that a majority of stakeholders involved in the preparation of NAPAs, although recognizing the importance of stabilizing population growth to better adapt to future climate changes, do not perceive RH/FP programs as urgent and immediate projects but rather as long term strategic planning interventions, perhaps addressed in national development plans and PRSs. It is important to note, however, that population and RH/FP issues have not been adequately addressed by PRSs either. According to a World Bank review, most of the PRSs recognized population growth as an important issue for poverty reduction and included objectives and strategies but failed to translate these into specific policies or indicators to measure progress over time (World Bank 2007). An unpublished review of 45 PRSs found that while two-thirds of them mention family planning, less than half include any implementation details (Borda 2005 cited in (Bhuyan et al. 2007).

This view is given credence by the Kiribati NAPA which clearly distinguishes between short-term adaptation for urgent and immediate needs (through the NAPA), and long-term strategic planning for adaptation (addressed by an existing project outside the NAPA, the Kiribati Adaptation Project, which has support for population and resettlement as one of its programs). Even though the NAPA guidelines state the importance of aligning projects to long-term sustainable development planning, they place greater focus on urgent action, which may be construed by NAPA stakeholders to imply short-term rather than long-term planning and development.

However, components of health and RH/FP could be integrated into projects in other sectors, as has been done in the NAPAs from Uganda and Sao Tome and Principe. For example, integrating health into projects focusing on agriculture and water resources that have a higher likelihood to be among high priority for NAPA funding, would improve the chances of RH/FP being implemented. Furthermore, such integrated projects are more likely to meet the needs of vulnerable populations, which face risks in all aspects of their lives – food, shelter, livelihoods, health, etc., including their voiced desire to stop or space childbearing.

9. CONCLUSIONS AND RECOMMENDATIONS

NAPAs are a major mechanism through which adaptation funding is to be provided to LDCs, which are likely to face the most severe impacts of climate change. This paper has shown that the NAPA process favors short-term project responses to climate change adaptation and that priority projects tends to be given to single-sector projects focusing on food security and water resources. The NAPA process has also not been successful in aligning urgent and immediate actions into existing national development planning processes, including PRSs, despite the requirement to do so. Thus, LDCs – and the global community – are missing an important opportunity to link meeting immediate and short-term adaptation needs with longer term development issues, including the Millennium Development Goals (MDGs) that will also strengthen people's ability to adapt to climate change.

Furthermore, demand for funding exceeds current available resources for NAPAs, indicating that developed countries are not meeting their promises to fund adaptation to climate change in the most affected countries.

Since environmental degradation and climate change have been linked to demographic factors, including population growth, slowing the rate of population growth should be among

the strategies implemented through NAPAs – and through national development plans. Voluntary RH/FP that respects the rights of individuals to choose the number and spacing of their children is recognized as one of many strategies that can help improve livelihoods and protect the environment by slowing population growth and reducing population pressure. RH/FP, included with investment in girls' education, economic opportunities and the empowerment of women, and investments in youth, which are all part of the MDGs, can help developing countries to speed up their demographic transition from high to low fertility and mortality rates and likely help people adapt to climate change.

This analysis of NAPAs shows that population pressure is recognized as an issue related to the ability of countries to cope with climate change. Thirty seven of the 41 submitted NAPAs broadly recognize and link rapid population growth to challenges the countries face in adapting to climate change. However, these linkages are not matched by a proportional response through adaptation projects that address population, including access to voluntary RH/FP. Only two countries among 41 include RH/FP projects in their NAPAs, and neither of those projects has received funding.

This review leads to five recommendations:

- The favoring of single sector projects within the NAPAs over integrated programs does not reflect people's lives. Strategies for adaptation should reflect a multisectoral approach that recognizes that people's lives are not lived in single sectors. People deal simultaneously with food, water, livelihoods, health, and education, among other issues, including fertility. Wherever appropriate, projects or programs funded through NAPAs should be integrated across sectors to avoid "winner" and "loser" sectors.

- The focus of NAPAs on short term projects over linkages with development strategies that address medium and longer-term issues is short sighted. Therefore, as countries develop longer term adaptation strategies, a mix of short- and longer-term projects that incorporate participation across development sectors is important to ensure a wide range of adequate responses in adapting to climate that saves lives and, ultimately, strengthens livelihoods.

- NAPAs should translate the recognition of population pressure as a factor related to countries' ability to adapt to climate change into relevant project activities. Such projects should include access to RH/FP, in addition to other strategies such as, for example, girls education, women's empowerment, and a focus on youth, that lead to lower fertility.

- Countries that have already clearly identified RH/FP projects in their NAPAs should expedite the implementation of these projects.

- Attention to population and integrated strategies should be central and aligned to longer-term national adaptation plans and strategies currently being discussed as part of enhanced action for adaptation.

REFERENCES

Agrawala, S and Fankhauser, S (2008) eds. *Economic aspects of adaptation to climate change: Costs, benefits and Policy Instruments*. Organisation for Economic Co-operation and Development (OECD)

Assessments of Impacts and Adaptations to Climate Change (AIACC). 2004. "Science in Support of Adaptation to Climate Change," Paper Presented at a Side Event of the 10th Session of the UNFCCC COP Buenos Aires, Argentina 7 December 2004. http://www.aiaccproject.org/whats_new/Science_and_Adaptation.pdf. Accessed 5 May 2009.

Bhuyan , A, Boda, M and Winfrey, W. 2007. "Making Family Planning Part of the PRSP process: A Guide for Incorporating Family Planning Programs into Poverty Reduction Strategy Papers. United States Agency for International Development (USAID).USAID: Washington DC.

Bojo, J, Green, K, Kishore, S, Pilapitya, S, and Reddy, R .2004."Environment in Poverty Reduction Strategies and Poverty Reduction Support Credits." The World Bank, Washington DC. http://www.basel.int/industry/wkshop-1206/3.%20Additional%20materials/Bojo%20paper%20on%20env%20in%20PRSPs.pdf. Accessed 28 March 2009.

Borda M. 2005. "How well Do Poverty Reduction Strategy Papers Address Family Planning: An Analysis of 45 countries." Unpublished manuscript. Washington DC: Constella Futures, POLICY Project.

CCCD (Commission on Climate Change and Development) 2009. *Closing the Gaps: Disaster risk reduction and adaptation to climate change in developing countries*. Final Report. Stockholm, Sweden.

Food and Agriculture Organization of the United Nations (FAO) 2008. "Adapting to climate change," Unasylva No. 231/232 Vol. 60, 2009/1-2. Rome, 2008

Global Environment Facility (GEF).2009. "Progress report on the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF): LDCF/SCCF Council Meeting, May 22, 2009. GEF/LDCF.SCCF.6/Inf.3), Washington, DC

Global Leadership for Climate Action (GLCA). 2009. "Facilitating an International Agreement on Climate Change: Adaptation to Climate Change," A Proposal for the GLCA

Hedger, M, Mitchell, T, Leavy, J, Greeley, M, Downie, A and Horrocks, L.2008. "Desk Review: Evaluation of Adaptation to Climate Change from a Development Perspective." Institute for Development Studies (IDS), Global Environment Facility (GEF) and Department for International Development (DFID). http://www.esdevaluation.org/images/IDS_Report_on_Evaluating_Adaptation_for_GE_publication_version.pdf. Accessed 10 March 2009.

Huq S. and Reid H. 2007. "International and National Mechanisms and Politics of Adaptation: an Agenda for Reform" Human Development Report Occasional Paper, UNDP

Huq S., Rahman A., Konate M., Sokona Y., and Reid H. 2003. Mainstreaming Adaptation to Climate Change in Least Developed countries (LDCs). International Institute for Economic Development (IIED), London UK.

Intergovernmental Panel for Climate Change (IPCC) 2001. *Climate Change 2001: Impacts, Adaptation, and Vulnerability,* Cambridge University Press, Cambridge, UK.

Jiang, Leiwen. 1999. *Population and Sustainable Development in China.* Amsterdam: Thela Thesis.

Jiang, Leiwen, and O'Neill, B. 2004. "The energy transition in rural China." *International Journal of Global Energy Issues* 21:2-26.

Jiang L. and Hardee K. 2009. "How Do Recent Population Trends Matter to Climate Chang." *PAI Working Paper* WP09-1. Population Action International, Washington DC

Liu, Jianguo, G. C. Daily, P. Ehrlich, and G. W. Luck. 2003. "Effects of household dynamics on resource consumption and biodiversity." *Nature* 421:530-533.

Mackellar, F. Landis, Wolfgang Lutz, Christopher Prinz, and Anne Goujon. 1995. "Population, households and CO2 emission." *Population and Development Review* 21:849-765.

McGray, H , Hammill, A, Bradley,R, Schipper, E and Parry, J. 2007. "Weathering the Storm: Options for Framing Adaptation and Development". World Resources Institute (WRI). WRI Washington DC. http://www.wri.org/publication/weathering-the-storm. Accessed 12 March 2009.

Marie Stopes International (MSI) and Population and Sustainability Network (PSN). 2009. Unpublished analysis of population in NAPAs.

Osman-Elasha,B and Downing, T. 2007. "Lessons Learned in Preparing National Adaptation Programmes of Action in Eastern and Southern Africa". European Capacity Building Initiative (ECBI), Policy analysis report. www.eurocapacity.org. Accessed 12 March 2009.

Oxfam International .2007. "Adapting to climate change", *Oxfam Briefing Paper 104*, Oxfam International.

Prskawetz, Alexia, Leiwen Jiang, and Brian C. O'Neill. 2004. "Demographic composition and projections of car use in Austria." *Vienna Yearbook of Population Research 2004*:175-201.

Ross, John. 2004. *Understanding the Demographic Dividend*. Washington, DC: Futures Group, POLICY Project.

Stern, Nicholas. 2006. The Economics of Climate Change. *The Stern Review.* Cambridge University Press, Cambridge and New York.

UNFCCC. 2009. "NAPA Projects Database" http://unfccc.int/cooperation_support/least_developed_countries_portal/napa_project_database/items/4583.php. Accessed 061209

United Nations Development Programme (UNDP). 2007. *Human Development Report 2007/2008*. Fighting climate change: Human solidarity in a divided world. UNDP, New York.

UNFCCC 2007. "Bali Action Plan" http://unfccc.int/files/meetings/cop_13/application/pdf/cp_bali_action.pdf. Accessed 5 May 2009.

United Nations Framework Convention for Climate Change (UNFCCC)/LEG. 2002. "Annotated guidelines for the preparation of national adaptation programmes of action." http://unfccc.int/files/cooperation_and_support/ldc/application/pdf/annguide.pdf. Accessed 031209

USAID | Health Policy Initiatives. 2006. *Achieving the g*. Washington, DC: Futures Group: Health Policy Initatives. Written by Scott Moreland and Sandra Talbird, *Millennium Development Goals: The contribution of fulfilling the unmet need for family planning*.

van Diepen, A. 2000. *Household and their Spatial-Energetic Practices. Searching for Sustainable Urban forms*. Groningen, Utrecht: FRW, RUG/KNAG.

Water Governance Facility (WGF). 2009. "Water Adaptation in NAPAs: Freshwater in Cliamte Adaptation Planning and Climate Adapattaion in Freshwater Planning. A UNDP side publication to WWDR3.

WGF, Stockholm. http://www.watergovernance.org/downloads/UNDP_NAPAs_water_adaptation_to_climate_change_20_Jan.pdf. Accessed 28 March 2009.

World Bank. 2007. "Population Issues in the 21st Century: The Role of the World Bank". The World Bank: Washington DC.

The World Bank IEG (Independent Evaluation Group). 2006. "Hazards of Nature, Risks to Development: An IEG Evaluation of World Bank's Assistance for Natural Disasters." Washington, D.C.: The World Bank.

TABLE 1: ANALYSIS OF NAPAs SUBMITTED AS OF MAY 2009

COUNTRY	COMPLETION OR EXPECTED COMPLETION DATE	NUMBER OF PRIORITY PROJECTS IN NAPA	CATEGORY OF NAPA ALIGNMENT WITH DEVELOPMENT PLANNING PROCESS[7]	NAPA RECOGNIZES 'RAPID POPULATION	NAPA MENTIONS RH/FP	NAPA LINKS RH/FP WITH ADAPTATION STRATEGY	NAPA IDENTIFIES RH/FP PROJECT	COUNTRY POPULATION PROJECTED TO AT LEAST DOUBLE BY 2050[8]	UNMET NEED FOR FAMILY PLANNING (%)
Bangladesh	Nov-05	15	B	•					4.6
Benin	Nov-05	5	A	•				•	29.9
Bhutan	May-06	9	B	•					n.a
Burkina Faso	Dec-07	12	B	•				•	28.8
Burundi	Feb-07	12	A	•					29.4
Cambodia	Mar-07	20	A	•					25.1
Cape Verde	Dec-07	3	A	•					14.2
Central African Republic	Jun-08	10	B						16.2
Comoros	Nov-06	13	B	•	•	•			34.6
Democratic Republic of the Congo	Sep-06	3	A					•	
Djibouti	Oct-06	8	A	•				•	26.3
Eritrea	May-07	5	B					•	27.0
Ethiopia	Jun-08	11	B	•	•	•		•	33.8
Gambia	Jan-08	10	A	•				•	n.a
Guinea	Jul-07	25	A					•	21.2
Guinea-Bissau	Feb-08	14	A	•				•	n.a
Haiti	Dec-06	14	A	•					37.5
Kiribati	Jan-07	10	A	•	•	•			n.a
Lesotho	Jun-07	11	A	•					30.9
Lao People's Democratic Republic	May-09	12	A	•					39.5
Liberia	Jul-08	3	A	•				•	35.6
Madagascar	Dec-06	15	A	•				•	23.6
Malawi	Mar-06	5	A	•				•	27.6
Maldives	Mar-08	11	A	•					37.0
Mali	Mar-06	19	A	•				•	31.2
Mauritania	Nov-04	28	B	•					31.6
Mozambique	Jul-08	4	A	•					18.4

7 The authors divided the NAPAs into two categories regarding linkage with development planning process. Category A- NAPA does not clearly demonstrate how it is linked to the national and sectoral development plans including PRSPs. Without giving details, the document only mentions that " ..the NAPA was created on the basis of…or…has established strong linkages with…or …supports .." the national development goals and strategies as espoused in the country's development plans including PRSPs.

Category B - NAPA clearly establishes how it is linked to national and sectoral development plans complete with a detailed analysis of the identified vulnerabilities and proposed projects. Some contain matrices of detailed analyses showing how the NAPA fits into specific national development and sectoral development plan goals and even in specific programs and projects.

8 This is based on the United Nation's Population Projections based on the medium-variant. http://esa.un.org/unpp/

COUNTRY	COMPLETION OR EXPECTED COMPLETION DATE	NUMBER OF PRIORITY PROJECTS IN NAPA	CATEGORY OF NAPA ALIGN-MENT WITH DEVELOPMENT PLANNING PROCESS[7]	NAPA RECOGNIZES 'RAPID POPULATION	NAPA MENTIONS RH/FP	NAPA LINKS RH/FP WITH ADAPTATION STRATEGY	NAPA IDENTIFIES RH/FP PROJECT	COUNTRY POPULATION PROJECTED TO AT LEAST DOUBLE BY 2050[8]	UNMET NEED FOR FAMILY PLANNING (%)
Niger	Jul-06	14	A	•				•	15.8
Rwanda	May-07	7	A	•				•	31.7
Samoa	Dec-05	9	A	•					n.a
São Tomé and Principe	Nov-07	22	A		•		•		n.a
Senegal	Nov-06	4	A	•				•	31.6
Sierra Leone	Jun-08	24	A	•				•	n.a
Solomon Islands	Dec-08	7	A	•					n.a
Sudan	Jul-07	5	B	•					26.0
Tuvalu	May-07	7	A	•					n.a
Uganda	Dec-07	9	A	•	•	•	•	•	40.6
United Republic of Tanzania	Sep-07	6	A	•				•	21.8
Vanuatu	Dec-07	5	A	•					n.a
Yemen	Apr-09	12	A	•				•	50.9
Zambia	Oct-07	10	B	•	•	•		•	26.5
Afghanistan	Q2-2009*							•	n.a
Chad	Q2-2009**							•	n.a
Angola	Q4-2009**							•	n.a
Togo	Q2-2009**								32.3
Myanmar	Q4-2009**								19.1
Nepal	Q4-2009***							•	24.6
Timor-Lesté	Q4-2009***								3.8
Somalia	^							•	n.a
Equatorial Guinea	^^							•	n.a

* Draft NAPA Available

** NAPA preparation on-going

*** NAPA preparation initiated

^ Somalia is not a Party to the UNFCCC

^^ Equatorial Guinea has not yet agreed to a project proposal to finance the preparation of its NAPA

TABLE 2: DESCRIPTION OF NAPAs SECTORS

SECTOR	DESCRIPTION
Food Security	Agriculture, livestock, fisheries and other livelihood sources.
Terrestrial ecosystems	Lakes/wetlands, forests, natural sites, and land management.
Water resources and management	Water harvesting, storage and distribution.
Coastal zones and/or marine ecosystems	Protection and management of coastal resources including fisheries, mangroves, coral reefs.
Infrastructure	Construction and rehabilitation of dykes, waterways, dams, wells and culverts
Early warning systems and disaster management	Installation, strengthening and development of early warning, surveillance and disaster preparedness and management technologies and systems.
Energy	Introduction of renewable energy systems such as wind, solar, and biomass.
Health	Includes health care delivery and management including climate change related disease control, prevention, treatment and management.
Education and/or capacity building	Formal and informal training, sensitization and dissemination information on adaptation to climate change including indigenous knowledge.
Tourism	Eco-tourism and sustainable tourism efforts
Insurance	Exploration and promotion of insurance options like crop/drought insurance schemes to reduce risk.
Cross-sectoral	Projects and activities that cannot be classified into any one sector

FIGURE 1: DISTRIBUTION OF NAPAs PROJECTS BY SECTOR

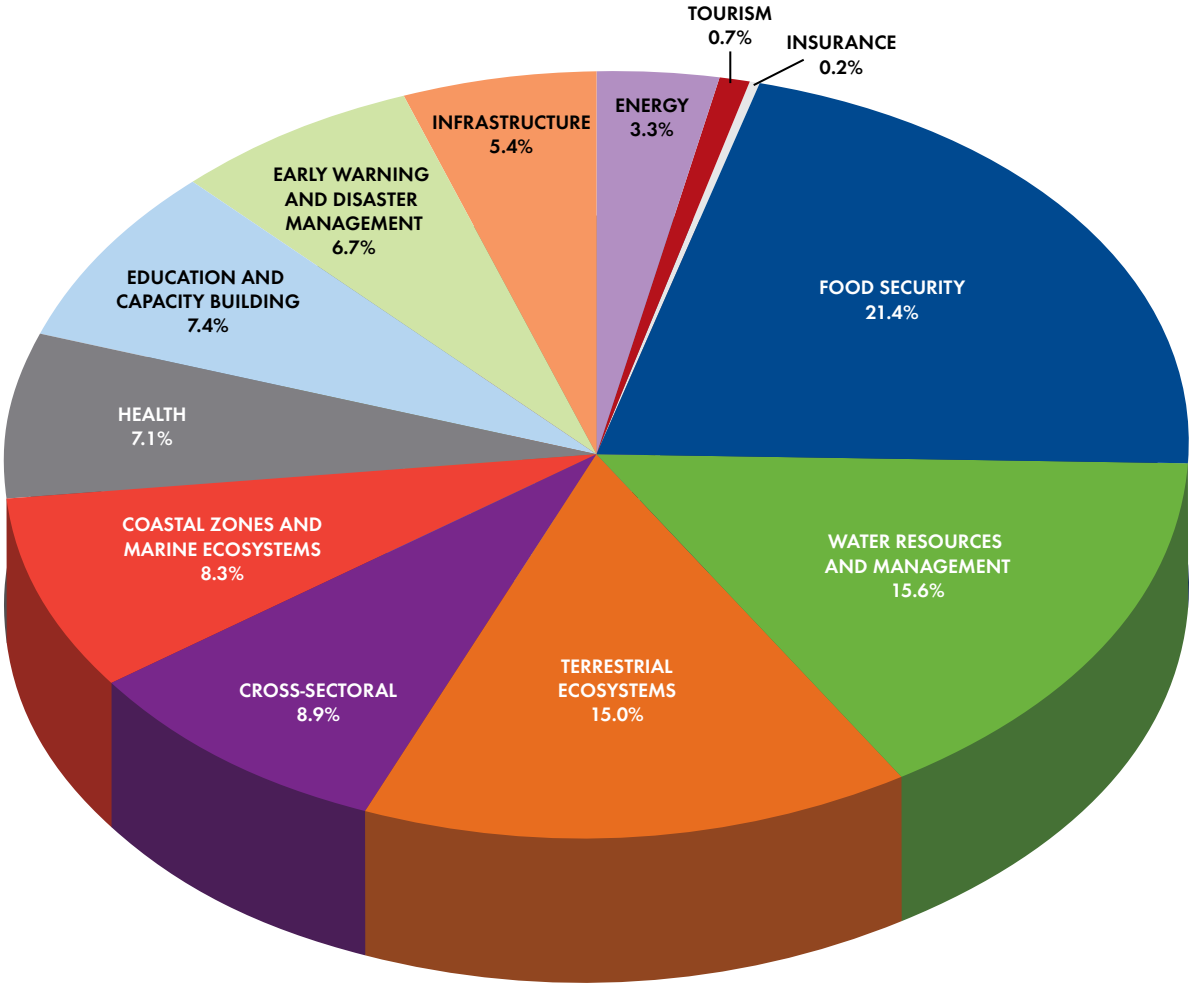


FIGURE 2: PRIORITY RANKING OF NAPAs PROJECTS BY SECTOR

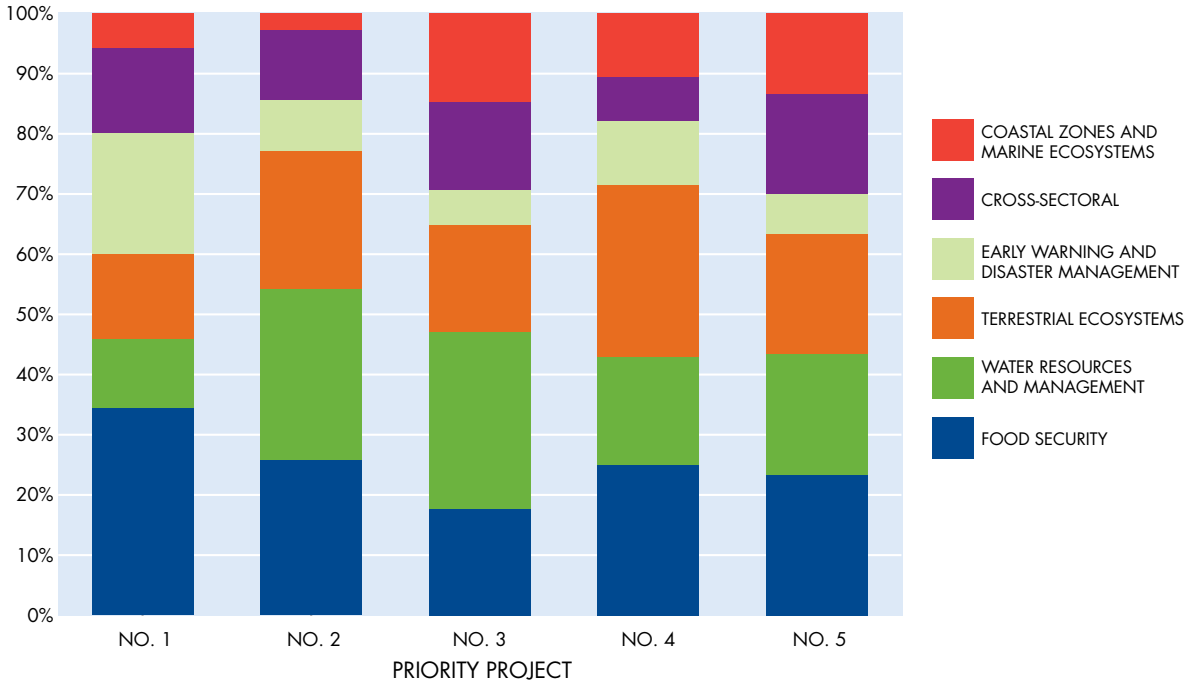
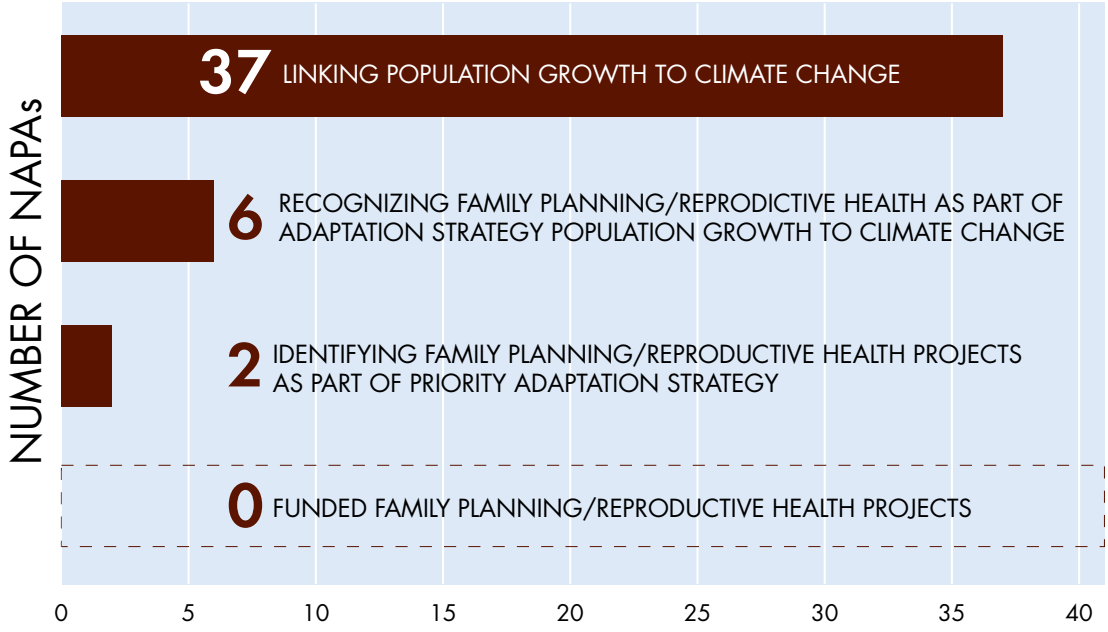


FIGURE 3: NAPAs CHARACTERIZATION OF POPULATION, REPRODUCTIVE HEALTH / FAMILY PLANNING AND CLIMATE CHANGE



ANNEX: THE NAPA PROCESS

Guidelines for Developing NAPAs

LDC governments have embraced the NAPA process, and to date, the Global Environmental Facilitity (GEF) has supported the preparation of 48 NAPAs. To assist in the preparation of the NAPAs, the LDCs have followed the "Annotated Guidelines for the Preparation of National Adaptation Programmes of Action"[9] prepared by the LDC Expert Group (LEG), along with additional support material provided through United Nations Institute for Training and Research) (UNITAR) and the Global Environmental Facility (GEF) implementing agencies.[10]

The suggested first step in developing a NAPA is the establishment of NAPA organizations. This includes the formation of NAPA Co-ordination Team, steering and technical committees and multidisciplinary working groups. The preparation of NAPAs is guided by a participatory process, led by a coordinating unit and theoretically involving stakeholders at different levels, particularly local communities and representatives from different livelihood sectors (such as agriculture, water, energy, forestry, health and tourism). An analysis by Osman-Elasha and Downing (2007) found that NAPA coordination teams are mainly hosted within the NAPA implementing agencies, which are found either under the umbrella of environment or the meteorology departments and mostly represent the UNFCCC Focal Points. The coordinating team usually consists of one or two national coordinators whose main job is to manage and supervise the whole process at the national and state levels and coordinate all of the NAPA activities in cooperation with the hosting agency and other relevant institutions and stakeholders (ministries, universities, research centers, NGOs and CBOs). Some members of the NAPA team are always involved in the negotiation and on-going debates on issues related to LDCs concerns and interests, as well as participating in all NAPA relevant events (conferences, workshops, and meetings) at the regional and international levels.

The Steering Committee (SC) is an important organ of the NAPA preparation Team and usually consists of high-level policy makers and government officials, including representatives of stakeholders from all relevant sectors including government institutions (water, health, agriculture, planning and finance etc), research and academic, non-governmental organizations. The SC members provide strategic oversight, establish, and prioritize overall policy directions and guidance to the NAPA teams. Technical Committees (TCs) have a technical and consultative role and provide technical advice to the teams and help maintain communication and dialogue processes among relevant institutions. Furthermore, at a later stage, the TC members are expected to use their technical background and knowledge to contribute to the assessment of options for executing the consultative process and for the identification of priority projects. In most of the countries the TC also constitutes other Consultative Assessment Task Forces or working groups. For instance, the Synergy Assessment Task Force/Working group assesses synergies between strategies, projects, and policies for adaptation to climate change, and national sustainable development initiatives, multilateral environmental agreements or other initiatives. The TC may also include working groups on specific issues such as water, agriculture, health, poverty, coastal zones, etc. (Osman-Elasha and Downing 2007).

9 The annotated guidelines provide some key steps which may be followed in the preparation of the NAPAs.

10 The GEF implementing agencies comprises the United Nations Development Program (UNDP), United Nations Environment Program (UNEP) and the World Bank.

The next step is a synthesis of available information such as impact assessments, coping strategies and past and existing national and sectoral development plans in order to compile baseline vulnerabilities. NAPAs are designed to use existing information, and hence no new research is needed. Thus, NAPAs draw on existing information and community-level input to identify NAPA priority adaptation projects required now in order to enable these countries to cope with the immediate impacts of climate change. To ensure sustainability of livelihoods and resources, NAPAs ought to identify adaptation interventions that strive to improve management of climate related risks by enhancing adaptive capacity while at the same time easing pressure on resources.

Projects are identified through consultations with stakeholders. Stakeholder participation should allow for a meaningful participatory assessment of vulnerability to current climate variability and extreme events, identification of areas of extreme sensitivity and where risks would increase due to climate change, identification of key adaptation interventions as well as the criteria for prioritizing them, screening and ranking of the interventions to come out with a prioritized short list of priority projects. Prominence is supposed to be given to community-level input as an important source of information, recognizing that grassroots communities are the main stakeholders. After projects have been screened and prioritized, profiles and/or activities intended to address urgent and immediate adaptation needs are developed. The profiles summarize for each priority project its description, rationale, inputs and outputs, and implementation.

Upon completion, the NAPA document is submitted to the UNFCCC secretariat, where it is posted on the website, and the LDC Party becomes eligible to apply for funding for implementation of the NAPA under the LDC Fund. A copy of the NAPA is also sent to the GEF.

Implementation of NAPAs

Once a NAPA has been submitted to the UNFCCC secretariat, the LDC Party can start the process of implementation under the LDC Fund, which is managed by the GEF. To initiate implementation, an LDC Party prepares a concept note and requests an implementing agency of the GEF (currently there are 10 of them), to assist it in submitting a proposal for funding to the GEF under the LDC Fund. The GEF agency then works with the country to develop the concept into a full project that is ready for implementation under the GEF project cycle.

The GEF cycle includes a sequence of steps that includes submission of a project identification form (PIF), followed by a project preparation grant (PPG), then a full-sized project (FSP) proposal. Each of these stages is either approved by the GEF Chief Operating Officer and/or the GEF Council. This interactive process with the country is supported by funds to assist the country fully develop the project and prepare the relevant project documents for submission. The GEF agency works very closely with the country during each successive step, and ultimately supports the country in implementing the project.

Implementation is the only way to meet the objective of NAPAs, that is, to meet the immediate adaptation needs of LDCs. Through the implementation of NAPAs, the identified urgent and immediate intervention projects will not only build resilience partly through direct project outcomes, but also through the potential to catalyze wider understanding, uptake and action

on adaptation both by the LDCs and the international community (Ayers 2008). Delay in the implementation of identified activities could increase vulnerability, or lead to increased costs at a later stage.

Overall, the process of NAPAs implementation has been slow, and currently only about 40 percent of all the countries that are eligible for funding have submitted their first full project proposal to implement immediate and urgent climate change adaptation activities as identified in the NAPAs. The lagged pace in the implementation process manifests at two levels. First, there is a slow graduation of the identified projects from the profiles presented in the NAPAs to full projects ready for implementation under the GEF project cycle. It has taken some countries more than two years to develop a single full project. Indeed some countries, for example Madagascar and Senegal, are yet to submit a PIF despite the fact that they had submitted their NAPAs by 2006. The second level is the length of time taken between a PIF is submitted to the actual transfer of funds to the country to implement the projects. McGray et al. (2007) associate this type of delay with conflicts in funding procedures. Both levels of delay could be a combination of country response processes with co-ordination and funding challenges between the countries and UNFCCC and GEF, and are beyond the scope of analysis of this paper.

Financing for NAPAs

Financing is a key component of NAPAs. Although estimates of the level of funding required to assist developing countries in managing the impacts of climate change vary widely, there is general agreement that the cost to the public and private sector could be in the range of tens of billions of dollars per year. The UN's latest Human Development Report (HDR) estimates that additional adaptation finance needs will amount to US$86 to 109 billion annually by 2015. Oxfam puts the price tag at US$50 billion per year, and the UNFCCC puts it at US$28 to 67 billion by 2030 (SEI 2007, McGray et al. 2007). Article 4.4 of the UNFCCC commits developed countries to assist developing country Parties particularly vulnerable to the effects of climate change to meet the costs of adaptation. This assistance is understood to come in the form of new and additional funding (i.e. beyond what developed countries provide as overseas development assistance, or ODA).

Submitted NAPA project profiles should have indicative estimates of financial resource requirements for implementing each of the identified projects. The total indicative estimated costs for all the 484 projects in the submitted NAPAs is over US$ 800 million. There is a wider variation in the indicative total financial requirements among countries, ranging from a low of US$ 3 million in Central African Republic to US$ 128 million in Cambodia. However, the estimation of adaptation costs in NAPAs is faced with significant challenges as underestimation is identified by the UNDP (2007) as one of the main shortcomings of NAPAs.

Three funds were established by the Conference of Parties to support adaptation activities in developing countries: the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF) under the UNFCCC, and the Adaptation Fund (AF) under the Kyoto Protocol.

The LDCF, managed by the GEF, addresses the adaptation needs of the LDCs, including the preparation and implementation of NAPAs. The LDCF has so far supported the preparation of the NAPAs in 47 LDCs and will also support the implementation of priority actions identified

in the completed NAPAs. The 24 approved PIFs will require a total of US$ 232 million, with US$ 78 million being the expected LDCF/GEF grant while US$ 154 million is the co-financing.

If a sizeable number of the submitted project profiles were to be developed into full projects eligible for funding, and considering that most of the submitted NAPA projects have underestimated the adaptation costs, then it means the requests would not sustain the LDCF and may in fact exhaust it. Currently the LDCF has mobilized about US$ 176 million. There is general consensus that resource shortfalls hinder funding of NAPAs and that countries are generally underestimating the costs of adaption.

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