Climate change, and its attendant effects on political stability worldwide, has shifted from mere speculation to a clear and present danger to the strategic security interests of the United States. In a May 2010 op-ed, Senator John Kerry argued that “climate change injects a new major source of chaos, tension and human insecurity into an already volatile world. It threatens to bring more famine and drought, worse pandemics, more natural disasters, more resource scarcity, and staggering human displacement. In an interconnected world, that endangers all of us.”

A 2010 report from the Joint Forces Command identified climate change as one of the ten trends most likely to impact the U.S. defense community’s operating environment, particularly in fragile states where U.S. military bases or key civilian infrastructure are broadly affected.

Such security risks are expected to be highest in Africa, which is home to 22 failed and 30 failing states. Addressing climate change in Africa is now firmly viewed as a central component of a comprehensive security strategy for the United States. The climate change-security nexus mirrors the consensus in the international community on the dangers of climate change for economic and social development, particularly in the case of Africa. Experts predict that expected changes in regional temperatures across Africa could negatively affect Africa’s sustainable development, costing the continent between 1.5 and 3% of its GDP per year. Many of the recent reports on climate change and African development argue that the increased prevalence of droughts and floods poses ongoing danger to food security, particularly in areas highly dependent on agriculture production. Likewise, climate change can directly contribute to resource scarcities, especially in water, that lead to conflict and migration. Changes in average temperatures can also contribute to the increased likelihood of diseases such as malaria.

Africa is the least able among developing regions of the world to quickly adapt to climate change because of the complex political, social, economic, and ecological drivers of climate change vulnerability. Endemic poverty, weak institutions, high urban population growth in coastal cities, lack of capital and infrastructure, limited access to technology, complex natural disasters, and enduring conflict all hinder efforts to invest in long-term adaptation. While unsustainable development practices contribute to Africa’s vulnerability to climate changes, a transition to more sustainable development strategies now can reduce or reverse this effect. As such, adaptation to climate challenges is a core element of good development practice. As a result, the new imperative of the international development community is “pro-poor green growth” through increased aid for climate change adaptation.
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What this bodes for the U.S. defense community is clear: the key interlocutors in addressing and mitigating climate change threats in developing regions, especially in Africa, will be international aid agencies. Indeed, U.S. Secretary of Defense Robert Gates has indicated that one of the Defense Department's core objectives is to identify opportunities for enhanced interagency coordination and cooperation in areas of importance to U.S. national interests. These sentiments are echoed in the planned Quadrennial Diplomacy and Development Review (QDDR) of the U.S. State Department. But what is really known about international aid for climate change adaptation in Africa?

The Aid Scramble for Pro-Poor Green Growth

In the past several years there has been a great deal of energy devoted to mobilizing aid agencies to address climate change challenges in the developing world. Predominant multilateral development organizations, such as the World Bank and even the International Monetary Fund (IMF), have aggressively positioned themselves to manage a growing number of special adaptation and mitigation funds, such as the Climate Investment Funds and the proposed Copenhagen Green Fund.

Simultaneously, there has been a proliferation of reports and strategy papers drawing attention to the complex relationship between development and climate change, the need for

Figure 1 is a breakdown by donor of all aid to Africa between 2000 and 2008 as reported by AidData (www.aiddata.org). All amounts are based on USD 2000 figures.
better climate change screening and costing tools, and the need for adaptation mainstreaming in existing aid policies and projects.  

The increased focus on climate change and development is matched by widely espoused commitments to ratchet up overall levels of official development assistance for climate change adaptation, and to enhance donor coordination and harmonization in all areas of climate change financing. In the run-up to the Copenhagen Conference in December 2009, the leading multilateral banks and the IMF issued a joint statement, pledging to fast-track USD30 billion in climate change financing to the developing world between 2010-2012. At the same time, the advanced industrialized countries promised in the resulting Copenhagen Accords to mobilize USD100 billion per year by 2020.

Whether or not these new climate finance promises are sufficient to meet needs is a widely disputed issue, subject to scientific uncertainty and political ambiguity. African Development Bank President Donald Kaberuka declared that the rich nations at the Copenhagen climate summit should commit USD40 billion per year in new money to help Africa address the consequences of global warming—an amount equivalent to the estimated three percent loss of GDP each year due to climate change. Other experts predict that, globally, climate change financing to developing countries will require anywhere between USD37-50 billion per year up to 2030, and a 2009 World Bank report calculates that the total annual costs of adaptation globally might reach USD75-100 billion per year by 2050. For Africa alone, current estimates of adaptation costs range from the World Bank estimate of USD40 billion annually by 2020 to the United Nations Development Program (UNDP) estimate of USD86 billion per year by 2015. Critically, the Copenhagen Accords signed in December 2009 indicate that this financing needs to be in addition to current levels of official development assistance (ODA). ODA in 2009 summed to only USD120 billion globally—USD44 billion of which went to Africa. Put simply, the cacophony of costing estimates and pledges stand in stark contrast to what is known for certain: that current official development assistance is insufficient to cover adaptation needs. Meeting these needs will require an unprecedented level of political will and resources.

Commitments to enhanced funding are nearly universally welcomed. However, there remain serious concerns about the inadequacy of pledged funding and fears that—without sufficient accountability mechanisms—any new climate change funding will simply displace or crowd out official development aid. It is also not clear how the new funds will be governed, especially since most lack clear expectations on who will manage the new monies, how developing countries will navigate the complex administrative rules and mandates, and how funds will be tracked for accountability and evaluation purposes.

The provision of funds and technical assistance for climate change adaptation has become a crowded field, fraught with risk of donor fragmentation, redundancy, and lack of transparency. These concerns are embedded in larger apprehensions about international development aid. Observing and measuring international development aid flows is a tricky business, hindered by systemic weaknesses in aid statistical reporting systems. It is especially difficult to track international official development assistance that directly contributes to climate change adaptation. To date, there is no international consensus methodology for reporting the exact share of aid activity that contributes to climate change adaptation. There is little definitive knowledge of how much aid for climate change adaptation already exists, where it is going, and where needs still have yet to be addressed.

What Counts as Climate Change Adaptation?

The challenge of tracking climate change aid is in large part due to uncertainty regarding how climate change adaptation should be defined in the context of development. What kind of aid should “count” as adaptation (versus mitigation or sustainable development)? Leading experts at the College of William & Mary and Brown University have been closely tracking the different coding schemes for climate change adaptation. To date, they have documented at least 19 different adaptation-reporting schemes from 15 governmental organizations, think tanks, NGOs, and academic researchers. The confusion regarding
what counts as climate change adaptation appears in reports of official development aid agencies as well. For example, in an April 2010 report on mainstreaming climate change adaptation into development assistance, the UNDP noted that the tools and methodologies created to integrate climate change concerns have:

...to a large extent been undertaken independently by various national and international NGOs, donors, and institutions. They have different rationales and objectives and follow numerous approaches. In addition, in the absence of a common terminology for key climate change adaptation and mainstreaming terms, the same terms are frequently used differently in the variety of mainstreaming guidance documents, tools and methodologies used to support specific components of mainstreaming.27

To get a sense of what the numbers might look like, in Spring 2010 the Climate Change and African Political Stability (CCAPS) program team at the University of Texas used data from AidData to generate a preliminary assessment of how many aid projects to Africa could be categorized as climate change adaptation.28 Of the over 850,000 projects in AidData in February 2010, 252,000 projects were in Africa.29 Of these, 32,000 were selected out by the keyword search as potentially related to climate change adaptation. One thousand of these were selected at random for more refined human coding, using the adaptation coding schemes from three different sources: the World Resources Institute’s Targetedness Continuum, Vernon’s Adaptation Triangle, and Resources for the Future’s Adaptation Atlas Sector/Theme approach.30 Ninety-six of the 1,000 projects (9.6%) qualified as climate change adaptation narrowly defined under at least one of the coding schemes, whereas between 18-80% of the projects qualified when adaptation was defined more broadly. If this is truly representative of the entire AidData database, there should be approximately 3,700 adaptation projects (narrowly defined) in Africa between 1995 and 2007. However, as Figure 2 illustrates, it also suggests that when adaptation is defined most broadly, it can capture an overwhelming proportion of ODA and can become a rather meaningless category for reporting and statistical analysis purposes.

Since 2004, the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD) has attempted to address this dilemma by requiring bilateral donors to report on climate change activities in the Creditor Reporting System (CRS) using the “Rio Markers.” Under this system, donors tag their projects according to whether they target the United Nations Framework Convention on Climate Change (UNFCCC) provisions as “principal objectives,” target them as “significant objectives,” or are “not targeting the objectives.”31 According to a report from December 2009 by the OECD, total bilateral ODA in 2006-2007 supporting the environment equaled USD8.7 billion, with USD3.3 billion in aid categorized as meeting “principal” environmental objectives and USD4.366 billion as meeting “significant” objectives according to the Rio Marker methodology. These numbers, however, are based upon the USD31.4 billion in ODA screened against the environmental marker, out of the actual USD59.2 billion in total bilateral ODA for 2006-2007. That means that by 2007 a large portion of bilateral donors were not yet fully using the Rio Markers, leading to big gaps in the data. According to the OECD, “reporting has improved in recent years, [but] data analysis is hampered by the difficulties some members have in applying the methodology.”32

The OECD’s use of the Rio Markers signified tremendous progress in tracking aid for the environment. However, there are several problems with this current mechanism. First to date, the Rio Markers deal strictly with climate change mitigation strategies, not adaptation.33 Second, the Rio Markers are only required for reporting by bilateral lenders in the CRS system—a total of 23 donors—and thus omit multilateral lending. Finally, the CRS system relies upon self-reporting of climate change activities by DAC donors, as opposed to using independent coding. Self-reporting by donors may be particularly problematic for reaching a clear idea on how much aid is devoted to climate change adaptation. Independent researchers have documented the tendency of DAC donors to over-report the number of aid projects qualifying as “principal” or “significant” for climate change under the Rio Marker system. This over-reporting is due to excessive optimism, uncertainty about how to define and code climate change activities, or perceived political pressure to appear to be devoting more resources to climate change than is actually the case.34 Arunabha Ghosh, for example, argues that the OECD DAC system “gives donors the freedom to classify projects as climate-related, thus making the system open to abuse and lacking in credibility.”35 Axel Michaelowa and Katharina Michaelowa reanalyzed DAC lending data and found that nearly 75% of projects given the Rio Marker did not qualify as mitigation when subjected to independent coding.36

In 2010, the OECD launched a proposal to track adaptation aid in CRS, thus addressing some of these key issues. To date, however, reporting procedures have yet to be evaluated, as their implementation only began in January 2010. Moreover, the above challenges of using the Rio Markers have not yet been fully resolved, and seem likely to be repeated in the application of the adaptation markers.
AidData and CCAPS: Towards a Clearer Picture of Adaptation Aid to Africa

Until recently, the most commonly used source of data on official development assistance to Africa was the OECD's Creditor Reporting System. In March 2010, AidData—a new independent, open-source database for tracking international development finance flows—was released to the public. AidData is a collaborative effort of a team of researchers at the College of William & Mary, Brown University, Brigham Young University, and Development Gateway. AidData augments data from the OECD CRS with the inclusion of an additional set of non-DAC bilateral donors such as Brazil and India. To date, AidData has catalogued close to one million development aid projects worldwide between 1945 and 2009—nearly USD4.2 trillion worth of lending. AidData records the aid activities of 87 multilateral and bilateral aid donors—over two times the number accounted for in the CRS database. 46 of these give aid to Africa. The AidData team is currently working to expand the donor list to include more non-DAC sovereign donors as well as major INGOs, philanthropic organizations, and private sources of financing.

The beta version of AidData—and the forthcoming fall 2010 release of AidData 2.0—represent the most comprehensive and reliable resource for tracking development financing for climate change adaptation in Africa. The most useful aspect of AidData is that it goes far beyond the broad-purpose coding used by the OECD (e.g. "biosphere protection") to provide detailed coding for each activity occurring within a project. Currently, there are over 900 activity codes used by AidData. This intensive coding process has been completed for all multilateral and non-DAC bilateral aid donors, and the AidData team is currently coding all DAC donors. Because there is no limit on the number of activity codes that can be assigned to each project, and activity codes can be added within the AidData interface, AidData provides much more specific information on aid programs than was previously possible.
AidData can be used to construct a comprehensive and in-depth picture of aid to Africa.

available in aid reporting systems. For example, a project for HIV/AIDS prevention can be coded to capture multiple activities, including prevention, education, and treatment, whereas in the past all projects would be reported as simply “STD control including HIV/AIDS.” As a result, AidData can be used to construct a comprehensive and in-depth picture of aid to Africa. Moreover, in conjunction with the World Bank, AidData is also georeferencing projects to enable users of the database to generate visual maps of aid activity in their chosen issue area.

The CCAPS team is working closely with AidData resources to conduct a comprehensive inventory and analysis of aid for climate change adaptation in Africa. Graduate students at the University of Texas LBJ School of Public Affairs will conduct this work in 2010-2011 as part of a year-long Professional Research Project (PRP) course. In addition to constructing a comprehensive dataset on climate change adaptation aid commitments to Africa, the students will also collect information on national adaptation initiatives—primarily those proposed in the National Adaptation Programmes of Actions, or NAPAs. Finally, students will travel to key locations in Africa to conduct interviews with prominent actors and experts in the field of climate change adaptation and development aid to “ground-truth” the compiled adaptation aid database. These exercises will also highlight opportunities and challenges for donor coordination and implementation of committed funds.

The CCAPS program aims to produce an overview report with analysis of international aid and national climate change adaptation programs. The program will also initiate this year RSS newsfeeds, blog monitors, and other resource links that will provide a user-friendly and publically available source of current information on climate change, development, and international aid in Africa. All products from this work will be published on the CCAPS website.

The cumulative product of this research endeavor will be a much clearer picture of international development aid for climate change adaptation in Africa and who is providing it. It will also help to identify where—or to whom—the aid is going, and for what specific adaptation activities. This data collection and analysis effort will fill an important information gap in the scholarly and policy literature on climate change and development.

More critically, in line with the broader CCAPS research goals, CCAPS researchers plan to correlate aid flows with the project’s ongoing climate change and conflict vulnerability mapping to determine whether aid is actually going to where it is most needed. Finally, this database can then be used to select projects, on which future qualitative field research can be conducted. These efforts to ensure greater transparency and accountability are crucial in determining whether committed aid funds are actually reaching the ground and having an impact on Africa’s ongoing efforts to adapt to climate change.
ENDNOTES


5 This is most strongly reflected in the Nairobi Framework to mobilize support for sustainable development and climate change adaptation and mitigation in the developing world, especially sub-Saharan Africa. The Nairobi Framework was initiated in November 2006 by the United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), World Bank Group, African Development Bank Group (AfDB), and the Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC). For more information, see http://cdm.unfccc.int/Nairobi_Framework/index.html.


11 For more information on the QDDR, see http://www.state.gov/r/pa/prs/ps/2009/july/125956.htm.


14 AfDB, 2009.; The UNFCCC also reports that the costs of climate change across Africa could be equivalent to 1.5-3% of GDP each year as early as 2030. UNFCCC, 2010, p. 5.


ENDNOTES, continued


26 Roberts & Peratsakis 2010.

27 UNDP, 2010, p. 7.; See also OECD, 2009; and GTZ, 2009.

28 AidData is a collaborative effort of a team of researchers at the College of William & Mary, Brown University, Brigham Young University, and Development Gateway that seeks to capture the universe of development financing. For more information on AidData see www.aiddata.org.

29 AidData contains nearly a million records as of June 1, 2010.


31 The Rio Markers are based on the Rio Conventions on biodiversity, desertification, and climate change. For more information on the Rio Markers used in the OECD DAC Creditor Reporting System, please see www.oecd.org/dataoecd/45/7/42812122.pdf.

32 OECD 2009.


37 Timmons Roberts (Brown University) and Michael Tierney (College of William & Mary) are two of the AidData Principal Investigators and are also core researchers in the Strauss Center’s CCAPS program. Christian Peratsakis, AidData Research Fellow, is also a research assistant on the CCAPS program.

38 For a list of data fields in AidData versus CRS, see www.aiddata.org/help/fields.