

Chen, Zexian; He, Jingjing

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## WIDER Working Paper No. 2013/046

# Foreign aid for climate change related capacity building

Zexian Chen and Jingjing He\*

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### Abstract

The current climate change crisis has repeatedly alerted mankind to the urgency of tackling this pressing global challenge before it is too late. Developing countries, which have contributed negligibly to the present climate change problem are, nevertheless, hit the hardest by, and are most vulnerable to, its negative effects. Despite the ongoing efforts of foreign aid to promote capacity building in the developing countries, little is known about the effectiveness of foreign aid in terms of developing climate change related capacity, what lessons and experiences we can draw from past and present aid projects, what areas of foreign aid we can improve to boost capacity building and what successful aid experiences can be applied to a wider context. This paper aims to bridge this research gap by investigating what works, what could work, what is scalable and what is transferrable in foreign aid for capacity building.

**Keywords:** foreign aid, climate change, capacity building, climate change related capacity building

**JEL classification:** F35, F59, O43, Q54

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\*Institute of International Law, CASS, Beijing; emails: chen\_zexian@hotmail.com; Hejingjing@cass.org.cn

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## Acronyms

CDKN	Climate and Development Knowledge Network
CCCA	Cambodia Climate Change Alliance
CDM	clean development mechanisms
FAO	Food and Agriculture Organization of the United Nations
GHG	greenhouse gases
LDCs	least developed countries
OECD	Organisation for Economic Co-operation and Development
UNDP	the UN Development Programme Fund
UNEP	United Nations Environment Programme
UNFCCC	UN Framework Convention on Climate Change
WPA	Water Programme for Environmental Sustainability

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UNU World Institute for Development Economics Research (UNU-WIDER)  
Katajanokanlaituri 6 B, 00160 Helsinki, Finland

Typescript prepared by Liisa Roponen at UNU-WIDER.

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## **Executive summary**

Despite the ongoing efforts of foreign aid to promote capacity building in the developing countries, little is known about the effectiveness of foreign aid in terms of developing climate change related capacity, what lessons and experiences can be drawn from past and present aid projects, what areas of foreign aid can be improved to boost capacity building, and what successful aid experiences can be applied to a wider context.

This research follows the structure outlined above, aimed at answering each of the four essential questions in subsequent sections. However, it is worth pointing out that these issues are intertwined and should be treated as an integral whole. It is for the sake of simplicity that four separate sections are devoted to the discussions. Given the complexity and large scope of the four essential questions, this report can by no means provide complete answers, but should rather be viewed as a good starting point to invite further research.

This study begins with a review of the literature on capacity building and foreign aid. The introductory section first underscores the important role of foreign aid in assisting the developing world transfer onto a green growth trajectory, countries that simply lack the resources and capacity to pursue sustainable development on their own. The aid literature suggests that the lack of capacity is one of the compelling problems facing the developing nations in their fight against climate change. One recognition emerging in the literature is that the developing countries need not only more financial and technical resources but also institutions, procedures and incentive structures that enable them to make more effective use of resources. This highlights the importance of strengthening capacity building in aid recipient countries. The section then moves on to a detailed discussion of the concept and scope of capacity, as well as of the capacity building/development process. Finally, this it examines the 15 key areas where existing climate change capacity-building activities are centred and categorizes the climate change capacity-building projects in existence.

Section 2 aims to answer the question of ‘what works’. Based on case studies, it identifies successful aid experiences for climate change capacity-building, each of which is exemplified by actual projects. To be more specific, this research finds that (i) capacity-building programmes are most successful when they are country- and demand-driven; (ii) that education improvements can translate directly into heightened climate change mitigation and adaptation capacity; (iii) that monitoring of results and evaluation of capacity-building activities are important for improving the effectiveness of future aid interventions; (iv) that the exchange and sharing of data, information, expertise and financial resources at all levels could help to promote the best practices in responding to the climate change crisis; and (v) that it is important to improve policymakers’ decisionmaking with regard to climate change issues through capacity building.

Section 3 attempts to answer the question of ‘what could work’. Although some progress has been achieved with existing capacity-building assistance projects, many areas call for improvement. On the basis of case studies, this section tries to explore what areas have the potential to work, and what issues arise in delivering on this potential. Among the lessons to be noted in future aid interventions are: (i) the lack of cooperation between different climate change aid projects that affects the effectiveness of the implementation process; (ii) the mismatch between internal and external capacity-building resources that limits the effective execution of aid interventions; (iii) the lack of initiative on the part of aid-receiving

governments; (iv) non-existence of a mechanism flexible enough to enable developing nations to apply for specific and timely assistance; (v) the need for capacity-building aid for to be an integral part of support arrangements in all relevant areas addressing climate change; (vi) the need for improving long-term aid commitments to developing countries; and (vii) lack of country ownership can negatively impact on the effectiveness of climate change aid activities.

Section 4 deals with the question of ‘what is scalable’. It investigates what aspects of foreign aid for capacity building need to be delivered on a larger scale to enhance its positive effects on developing climate-related capacities in the developing world. This paper demonstrates that aid efforts need to be scaled up to boost climate change related capacity building: (i) to raise public awareness of the urgency of tackling climate change at all levels of society; (ii) to boost the international negotiation capacity of developing countries so as to win more support and help from the international community in battling against climate change; (iii) to support green technology transfer and development; and (iv) to deal with the shortage of climate change professionals in Africa.

Section 5 attempts to address the question of ‘what is transferrable’. It investigates what experiences from current aid projects can be transferred across countries and across projects. In fact, almost all successful approaches summarized in Section 2 (on ‘what works’) could be transferred from one related project to another or from one developing country to another, but the following practices in particular should find application in a wider context. First, the country-owned and demand-driven foreign aid approach for climate change capacity-building (discussed in Section 2) should be advocated in a wider context. Second, knowledge, information and experiences gained from past projects could be transferred to other aid programmes in similar situations. Third, experiences generated by successful aid projects on capacity building for CDM development are transferrable to other developing nations that urgently need aid support in order to benefit from the CDM.

Section 6 concludes, pointing out that although there is no ‘fits-for-all’ solution to climate change related capacity-building problems, most of the experiences and lessons discussed here are applicable, with modifications to allow for local features, in a wider context.

## **1 Introduction**

The current climate change crisis has repeatedly alerted mankind to the urgency of tackling this pressing global challenge before it is too late. Developing countries, which have contributed negligibly to the present climate change problem, are, nevertheless, hit the hardest by, and are most vulnerable to, its negative effects. In fact, according to the 2010 *World Development Report* (World Bank 2010), developing countries bear most of the costs of climate-change damage, currently around 70–80 per cent. As Roberts and Parks (2006) point out, developing countries actually suffer ‘a double injustice’ in the sense that environmental degradation and climate change will impinge on the poor countries hardest and worst, a situation to which they have contributed little, but are required to be ‘part of the solution’ by cutting GHG emissions at the expense of economic development. Furthermore, an economic slowdown in these countries can jeopardize their ability to address their pressing development problems. Developing countries are plagued with poverty, lack of adequate

healthcare, high unemployment and gender inequality. Climate change can only intensify the existing development problems.<sup>1</sup>

The only way out for developing countries is to pursue a green growth development path that aims to achieve harmony between development and environmental conservation.<sup>2</sup> However, many developing countries simply lack the financial and technological resources and capacity to follow eco-friendly transformation. This makes a strong case for the developed countries, i.e., the countries mainly responsible for the current environmental crisis, to help the developing world battle climate change and achieve a sustainable development trajectory.

Climate change, one of the most challenging issues facing the world, requires unified and urgent global action. Foreign aid for the development of green growth offers a plausible solution in that it not only helps the developing countries but also supports the interests of developed countries themselves. Aid is needed in particular to promote green technology transfers, to help establish frameworks that foster green growth, and to enhance capacity building in low-income communities to raise people's awareness and capacity to pursue a low-carbon growth path.

The lack of capacity is a compelling problem confronting developing nations with regard to climate change. Capacity constraints are a serious impediment to these countries' transfer towards a low-carbon development path. One recognition emerging in the aid literature is that developing countries need not only more financial and technical resources but also institutions, procedures and incentive structures that enable them to make more effective use of resources. This highlights the importance of strengthening capacity building in recipient countries (Degnbol-Martinussen 2002). *Capacity*, as defined by UNDP (2009) is 'the ability of individuals, institutions and societies to perform functions, solve problems, and set and achieve objectives in a sustainable manner'.<sup>3</sup>

There are roughly three levels of capacity: namely, the individual, the organizational and the system level or the enabling environment (UNDP 2011a), as is shown in Figure 1. Capacity at the individual level refers to the skills, experience and knowledge that allow individuals to perform (UNDP 2009).<sup>4</sup> Access to resources and experiences that can develop individual capacity is significantly influenced by organizational and environmental factors which, in

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<sup>1</sup> For example, increased maximum temperatures and changes in rainfall patterns are already having a negative impact on agriculture and food security in many low-income communities. Many coastal nations are suffering from damages to their ocean fisheries resulting from problems of ocean acidification (Howes and Wyrwoll 2012).

<sup>2</sup> Green growth can be defined as 'fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our wellbeing relies' (Hallegatte et al. 2011). Unlike the traditional pattern of economic growth, which was achieved largely at the expense of the environment, green growth aims to achieve synergy between economic progress and environmental protection that is vital to realizing the goal of sustainable development.

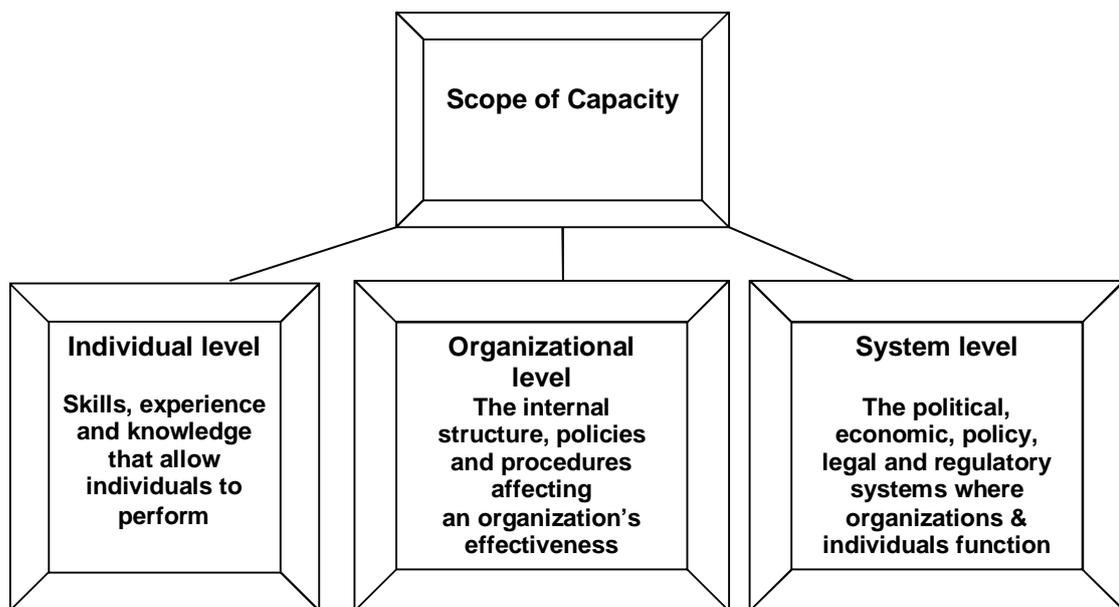
<sup>3</sup> Capacity is the essential lubricant of international development. Examples particularly relevant to developing countries include education, training and raising public awareness of climate change. Strengthening government delivery with trained professional staff is a recurrent theme, as is the establishment of climate change research and policy making bodies. The term 'adaptive capacity' has entered the language in the fight against climate change.

<sup>4</sup> Some aspects of capacity are generated formally through education and training, while others are obtained informally through doing and observing (UNDP 2009).

turn, are shaped by the extent of capacity building of each individual. Capacity at the organizational level is the internal structure, policies and procedures affecting an organization’s effectiveness (UNDP 2009).<sup>5</sup> An enabling environment or capacity at the system level refers to the political, economic, policy, legal and regulatory systems within which organizations and individuals function (UNDP 2011a).<sup>6</sup> This sets the overall scope for capacity building. Capacity-building aid programmes at the system level aim for outcomes in sound governance, effective policymaking and transparent institutions. Among the targeted objectives are high quality of law enforcement, high standard of governance and management, and effective human resource development. It is important to note that these three levels of capacity form an integrated system, in which each level affects the others in a dynamic manner—the strength of each depends on and determines the strength of the other domains (UNDP 2009).

The concepts of ‘capacity building’ or ‘capacity development’ are about establishing human, organizational and institutional capacity. Given that the awareness and competence of individuals and households are important determinants of whether a society can undertake responsive actions in the face of the current climate crisis, capacity building is at the root of all effective foreign aid efforts to drive sustainable development.

Figure 1: Three levels of capacity



Source: UNDP 2009.

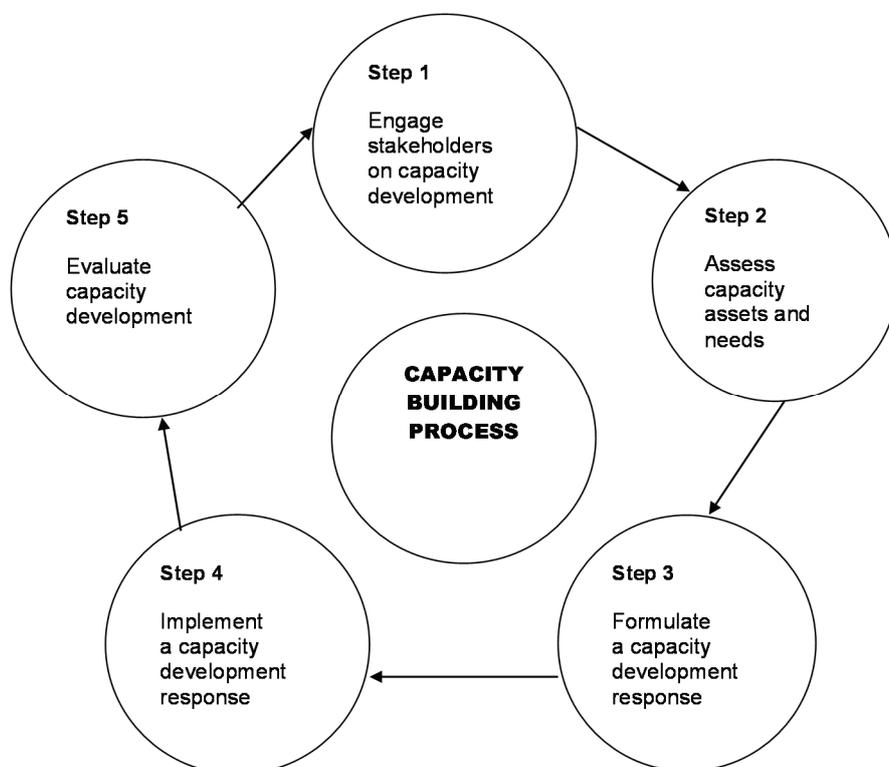
As suggested in the literature, capacity building is the dedication to the strengthening of economies, governments, institutions and individuals through education, training, mentoring, and the infusion of resources. Capacity building aims to develop secure, stable and sustainable structures, systems and organizations, with a particular emphasis on using motivation and inspiration for people to improve their lives. According to UNDP (2009), capacity development is a process through which individuals, organizations and societies

<sup>5</sup> Capacity at the organizational level is where the benefits of an enabling environment are put into action and where a collection of individuals gather (UNDP 2009).

<sup>6</sup> An enabling environment covers the rules, laws, policies, power relations and social norms that govern civic engagement (UNDP 2009).

generate, strengthen and sustain the competence to set and achieve their own development objectives over time. UNDP has also developed their own approach to the capacity development process, which involves five steps (UNDP 2011b). This UNDP capacity-building process is depicted in Figure 2.

Figure 2: Capacity-building process



Source: UNDP (2011b).

The climate change capacity-building activities of countries party to the UN Framework Convention on Climate Change (UNFCCC) are centred around the following 15 key areas: institutional capacity building; enhancement and/or creation of an enabling environment; national communications; national climate change programmes; GHG inventories emission database management; vulnerability and adaptation assessment; capacity building for implementing adaptation measures; assessment for the implementation of mitigation options; research and systematic observation; development and transfer of technology; improved decisionmaking, including assistance for participation in international negotiations; clean development mechanism (CDM); capacity-building activities to reduce climate change induced vulnerabilities in the poorest and most vulnerable communities; education, training and public awareness, and information and networking.

It is widely shared among the UNFCCC member countries that proper and adequate capacity is essential to tackling climate change. According to UNFCCC (2012), adequate capacity needs to cover a variety of issues related to the root causes of climate change, to promote the means for climate change mitigation and adaptation as well as to make sure that climate change considerations are prioritized in development agendas, in the educational curriculum and in people's everyday activities.

The current climate change related capacity-building assistance programmes vary by type, purpose, and size, with some aid projects being country-specific, some targeting a group of

developing countries and others offering general assistance with information and expertise to all developing nations. For example, the Czech Republic has received targeted country-specific aid projects, which helped to build its institutional and regulatory capacity on domestic and international CO<sub>2</sub> emissions trading, and greenhouse gas (GHG) monitoring and reporting. Latvia, Estonia and Lithuania have received assistance with institutional capacity building, while Russia, Ukraine and Belarus were given aid for the development of national GHG inventories.

Generally speaking, capacity-building aid projects at present can be categorized according to the funding sources into bilateral assistance, international institutions and multilateral assistance, as well as aid projects from business associations and non-government organizations (NGOs). Examples of bilateral assistance include aid projects from the US Environmental Protection Agency to Poland, Slovakia and the Czech Republic for developing recommendations on national CO<sub>2</sub> emissions trading schemes; and the Dutch government's financial assistance to Bulgaria and Romania for climate change capacity-building initiatives. Among the cases of multilateral assistance are the UNDP aid projects to help the transitional economies with capacity building as well as the capacity-building assistance from the Nordic Regional Organizations (e.g., Nordic Task Force for Climate Issues and Nordic Energy Research Institution) to developing countries in the Baltic Sea region in the area of climate, energy and environment. NGOs and business associations are also an important source of foreign aid to boost capacity building. Examples include the World Resources Institute's support for climate protection aid projects, aimed at assisting developing nations find less emission-intensive development paths and to create effective climate policy and institutional frameworks.

Despite ongoing efforts by aid to promote capacity building in the developing countries, little is known about the effectiveness of existing foreign aid in terms of developing climate change related capacity, what lessons and experiences can be drawn from past and current aid projects, what areas of foreign aid can be improved to boost capacity building and what successful aid experiences could be applied to a wider context. This paper attempts to find answers to these concerns by investigating what works, what could work, what is scalable and what is transferrable in foreign aid for capacity building. Although each question will be analysed on its own, it should, however, be noted that these issues are intertwined and should be treated as an integral whole.

## **2 What works**

What evidence exists on the effectiveness of aid for climate change related capacity-building? This section discusses the successful experiences of existing foreign aid projects for capacity building through illustrations of actual aid interventions. A summary of capacity-building aid activities is given in Table 1.

### **2.1 Country-driven and demand-driven approaches**

According to OECD (Levina 2002), it has been proven in practice that capacity-building programmes have the best chance of succeeding when they are country-driven, include a wide range of national stakeholders, and involve a high degree of in-country ownership. This observation is echoed by UNEP (2009) which has shifted the focus of foreign aid for capacity

Table 1: Examples of capacity-building aid activities for ‘what works’

Aid activities	What works	Year and location	Donors
Decentralized Service Delivery: a Makerere University Training Pilot Project			
	<ul style="list-style-type: none"> <li>Represents a successful example of the new country-driven and demand-driven approach that fosters a strategic long-term relationship between an in-country capacity ‘supplier’ and local ‘demand’ for capacity building.</li> </ul>	2002-06 Uganda	World Bank
Climate and Development Knowledge Network (CDKN)			
	<ul style="list-style-type: none"> <li>Example of international assistance to boost knowledge, capacity and awareness of climate impacts in the developing countries.</li> <li>Helps various decisionmakers develop climate policies, transfer green technologies, and mobilize green growth funding sources.</li> </ul>	2011-15 worldwide	UK the Netherlands
Cambodia Climate Change Alliance (CCCA)			
	<ul style="list-style-type: none"> <li>An example of employing effective outcome indicators to measure and compare institutional capacity development with other similar institutional capacity development projects.</li> <li>The aim is to deepen the understanding of how to enhance the effectiveness of foreign aid for institutional capacity building.</li> </ul>	2009-14 Cambodia	EU Sida Danida and UNDP
Forest Resource Assessment in Nepal			
	<ul style="list-style-type: none"> <li>Successful example of existing foreign aid efforts to establish a climate change database for developing countries.</li> <li>Aims to improve the provision of quality forestry data, and enhance data processing for developing national green forest policies and national decision-making process.</li> </ul>	2009-14 Nepal	Finland
Strategic Initiative to Address Climate Change in LDCs			
	<ul style="list-style-type: none"> <li>Exemplifies donor efforts to improve the decision-making ability of policymakers by offering technical and policy support to develop their capacity to access and implement climate finance, mainstream climate change mitigation and adaptation responses into sustainable national development plans, and effectively engage in international climate negotiations.</li> </ul>	2010-13 worldwide	UNDP
UNDP’s Capacity Development for Policymakers to Address Climate Change			
	<ul style="list-style-type: none"> <li>Aid interventions to enhance policymakers’ decisionmaking to coordinate ministerial and stakeholder opinions on climate change, to enhance understanding of the magnitude of the national efforts needed to address climate change and to provide support in long-term climate change planning at the national level.</li> </ul>	2008-12 worldwide	UNDP

Source: Compiled by authors, based on various sources.

building from technical assistance ‘fixes’ and supply-driven aid to an approach that is demand-driven, outcome-based and country-owned. This approach has been followed in many existing and forthcoming climate related capacity-building projects with encouraging results.

For example, the *Decentralized Service Delivery: a Makerere University Training Pilot Project in Uganda* in 2002 is a sustainable capacity-building project which adopted the country-driven and demand-driven approach, resulting in progress being achieved ahead of schedule (World Bank 2005). Past capacity-building training projects by the World Bank and other donors used to be ‘short-term, narrow in coverage, supply driven, uncoordinated, ad hoc, and relied heavily on external technical assistance’. This Uganda aid project is a successful example of the new approach that fosters a strategic long-term relationship between an in-country capacity ‘supplier’ and local ‘demand’ for capacity building. Thanks to this promising new approach, progress indicators for the project were met by 2004 or exceeded ahead of schedule.

## 2.2 Education and training

Considerable progress has also been made in terms of education, training and raising public awareness of climate change and its impacts. As suggested by the literature, such capacity-building activities as education improvements can translate directly into raised environmental awareness, as well as heightened climate change mitigation and adaptation capacity, which then in turn contributes to a country's low-carbon development. According to UNFCCC (2012), educational programmes on environmental issues and climate change have been implemented in many UNFCCC member nations at all levels of society, from primary schools to universities. Educational initiatives to raise public awareness of climate change are also being introduced by civil society and within targeted communities. These efforts have led to satisfactory results.

The aid project *Climate and Development Knowledge Network (CDKN)* is one example of international assistance to boost developing countries' knowledge, capacity and awareness of climate impacts (EU 2012). The five-year programme, jointly funded by the UK and the Netherlands, is aimed at assisting 40 developing nations to enhance their awareness, knowledge, and competence in the field of climate change. The programme encompasses six private and NGOs covering three continents. Through its professional team of scientists, economists, and policy analysts, the project helps public, private and non-governmental decisionmakers develop climate policies, transfer to green technologies, and mobilize green growth funding sources. For instance, in Rwanda, the CDKN programme provided support for the Ministry of Natural Resources to develop a green growth and climate resilience strategy, which enables direct action to promote climate mitigation and adaptation actions in the economy, enhances public awareness of the damages resulting from climate change and boosts institutional capacity to tackle climate change. Another CDKN foreign aid project is in Bangladesh, which was launched to empower the government through capacity and expertise building, and science and policy support. Thanks to this successful aid intervention, Bangladesh has transformed itself from a vulnerable actor to a leader in international climate negotiations.

## 2.3 Result monitoring

What is more, monitoring, reporting and sharing of information on capacity-building activities, and their experiences and lessons are important for improving the effectiveness of future aid interventions. As indicated by the EU (2012), in terms of monitoring climate change related capacity-building programmes, the same standards are followed as in other 'normal' development projects. Such monitoring criteria include: relevance; efficiency; development effectiveness; development impact; sustainability; use of country's own institutions and systems; ownership; management for results; mutual accountability; coordination; complementarity, and coherence. Past aid intervention experiences suggest that it is more effective to monitor climate-related capacity-building objectives and results within an aid programme's overall evaluation process. It is worth noting that on top of the general monitoring standards listed above, indicators measuring the effectiveness of aid programmes for capacity building also need to be tailored to each specific capacity-building activity and defined jointly with the aid-recipient country.

The initiative of *Cambodia Climate Change Alliance (CCCA)* provides a case in point of outcome indicators to measure development of institutional capacity to tackle climate change (EU 2012). The CCCA project is multi-donor funded by the EU, Sida, Danida and UNDP to

deal with climate change and disaster risks in Cambodia through improved institutional capacity and enhanced resilience to climate change impacts. This project is carried out over the period of 2009 to 2014 and is anchored in the Cambodian government's National Climate Change Committee programme. A major anticipated outcome is enhanced institutional capacity to coordinate national climate policymaking, and to monitor implementation of national climate change strategy. The project follows the measurement indicators indicated above to compare outcomes with other similar institutional capacity development projects, with an aim to deepen the understanding of how to enhance the effectiveness of foreign aid for institutional capacity building.

## **2.4 Data and resources sharing**

The global nature of climate change calls for the exchange and sharing of data, information, expertise and financial resources at all levels to promote best practices in the response to climate change impacts and facilitate climate related research (UNFCCC 2012). This requires the establishment of information databases in developing nations, where gaps in capacity currently exist in terms of data collection, dissemination and accessibility by the international community. Luckily, many capacity-building aid activities have been devoted to enhancing the quality of data and the dissemination of climate related information. Also, capacities have been strengthened in some developing countries for international cooperation, collaboration and networking, which facilitate climate information sharing and pave the way for international north-south and south-south cooperative climate research.

One successful example of current foreign aid efforts to establish a climate change database for developing nations is the project *Forest Resource Assessment in Nepal* funded by Finland for the period 2009–14 (EU 2012). This programme centres on creating a consistent system for collecting and sharing basic data of forest stock, biomass, soil carbon and biodiversity in Nepal. Its objectives include improving the provision of quality forestry data, and enhancing the processing of data for developing national green forest policies and decisionmaking at the national level. The programme collects information for forestry activities on climate change, and strengthens Nepal's capacity of reducing emissions from deforestation. In addition to boosting capacity building in Nepal, the project promotes cooperative research and international networking among research institutes in Finland, Nepal and Vietnam. Among its achievements is the development of local partners' capacity for data acquisition and analyses as well as promoting south-south cooperation in terms of mobilizing local and regional resources.

## **2.5 Improved decisionmaking**

Aid activities for capacity building play an important part in improving the decision-making capacity of developing country policymakers. As suggested by the literature (e.g., World Bank 2010), human beings are 'myopic decisionmakers', who tend to strongly discount future events and give more weight to problems closer in space and time. Thus, policymakers are likely to assign lower priority to the climate change challenge than to other domestic problems. This highlights the importance of developing the capacity of making informed decisions by the policymakers responsible for the design and implementation of sustainable development strategies. Luckily, considerable aid efforts have been devoted to enhancing policymakers' knowledge and awareness of climate changes and its impacts.

One of such donor attempt to improve policymakers' decisionmaking through capacity building is the *Strategic Initiative to Address Climate Change in LDCs*, which is funded by the UNDP from 2010 to the end of 2013. This project offers technical and policy support to

26 countries for developing their knowledge in accessing and implementing climate finance, mainstreaming climate change mitigation and adapting responses to national sustainable development plans, and effectively engaging in international climate negotiations. Another good example is the *Capacity Development for Policymakers to Address Climate Change* (UNFCCC 2012). This programme, which was funded by the UNDP for the period 2008–12 was aimed at building the national capacity of coordinating ministerial and stakeholder opinion in 19 developing countries on climate change, to enhance their understanding of the magnitude of the task ahead and to provide capacity support in their national long-term climate change planning.

### **3 What could work**

Although progress has been achieved with capacity-building assistance projects, there are many areas needing improvement. This section tries to explore what areas have the potential to work, and what issues arise in delivering on this potential. Relevant cases are also presented in this section to deepen our understanding of way to improve the effectiveness of capacity-building aid activities. Table 2 is a summary of the examples discussed in this section.

#### **3.1 Lack of cooperation**

Many of the existing capacity-building assistance projects have an ad hoc character and there is little cooperation among the various projects, a fact that limits the effectiveness of the implementation process. For instance, it is noted that many climate change adaptation activities are carried out as stand-alone or disconnected projects. Fragmented climate adaptation finance hinders mainstreaming climate-change responses into planning and development processes, and raises transaction costs for both donors and recipients (World Bank 2010).

Luckily, attention has been paid to the problem and efforts are being made to move the ad hoc approach to a more systematic level, with more agencies developing comprehensive capacity-building programmes to achieve synergy (Levina 2002). Donor agencies now strive to keep each other informed of programmes and actions implemented in the same region and to cooperate when possible. For instance, before the start of any programme, there should be donor coordination to reduce duplication. For similarly targeted projects in the same region, it could save donor time and money to utilize available, earlier studies to avoid duplication of needs assessment. One additional useful action could be to establish an online or actual climate change capacity-building coordination centre for exchanging information and resources, requesting assistance and undertaking mutual activities.

#### **3.2 Lack of internal capacity**

There is a mismatch of internal and external capacity-building resources, with many aid initiatives from donor countries unable to be matched to internal resources or competence in recipient countries. There is a need to encourage developing countries to strengthen relevant resources and capacity in order to be able to match donors' interventions.

The aid programme *Innovative Insurance Products for Climate Change Adaptation in Ghana* serves to highlight the importance of enhancing the internal capacity-building resources of developing countries (EU 2012). Established to improve Ghana's capacity to manage the socioeconomic costs and risks brought on by climate change, this programme developed and

introduced climate change-related agricultural insurance schemes for chosen value chains for implementation during the years 2009–13. But despite the benign intentions of donor countries, Ghana has had little experience with, and only limited capacity for, this kind of insurance scheme, creating a gap between internal and external capacity-building resources. Owing to efforts to enhance the knowledge and awareness of the stakeholders, to foster professionalism through training and to build capacity of Ghana's insurance sector, the gap was bridged, paving the way for effective implementation of the project.

### **3.3 Lack of initiative**

Another observed obstacle to the effective launch of capacity-building aid programmes is the lack of initiative on the part of recipient country governments. The passiveness of stakeholders (e.g., governments, public and industry) in many developing nations discourages the design of effective climate change policies and prevents these nations from reaping benefits from foreign aid. Accordingly, there is a need to encourage the developing nations to take the lead with donors in capacity-building efforts to harmonize donor support around the priorities of the beneficiary countries (World Bank 2005).

### **3.4 Lack of flexible aid application mechanism**

There is no mechanism flexible enough to enable developing nations to apply for specific and timely assistance. In a limited number of cases, developing countries can apply for special programmes to request overseas assistance for capacity building. However, in most cases, developing countries are not equipped with the necessary resources to apply for country-driven capacity-building assistance.

### **3.5 Lack of an integral approach**

Given its cross-cutting nature, foreign aid for capacity building should be an integral part of support arrangements in all relevant areas ranging from climate change adaptation and mitigation, response measures, green technology transfer to development of low-carbon market mechanisms (EU 2012). For instance, the *Water Programme for Environmental Sustainability* (WPA) funded by Italy since 2004 represents a good attempt to adopt an integrated approach to capacity-building activities (EU 2012). Conducted in Serbia, North Africa, Vietnam and China to improve integrated water resources management and protection in response to climate change impacts, the programme explores effective adaptation practices for water management in the face of climate variability and climate change impacts. Capacity building is well integrated into the overall programme, as the project centres on capacity building, regional coordination, promotion of effective technological practices and dissemination of sound governance measures. It is important to note that individual climate capacity-building activities should not be isolated events, but rather an integral part of the long-term, multi-purpose and multi-sectoral climate aid programmes, where activities complement each other within existing national/regional climate adaptation and mitigation schemes. The successful implementation of this aid project underscores the advantage of including capacity building as an integrated part of an overall climate aid programme.

### **3.6 Lack of a long-term approach**

Climate change capacity-building programmes should be a long-term iterative process, employing a flexible and adaptive manner to take changing circumstances and emerging challenges into consideration. Shortage of sustainable financial resources has been

recognized as one of the barriers impeding the launch of long-term programmes. Accordingly, more aid commitment from the developed countries is needed to secure a sustainable flow of funds for capacity building in developing countries.

### 3.7 Lack of country ownership

Ownership is essential to the success of foreign aid for capacity building. As van de Walle and Johnston (1996) point out, ‘...recipient governments can be said to “own” an aid activity when they believe that it empowers them and serves their interests’. Aid programmes for climate change must therefore be designed, carried out, and monitored in collaboration with local partners to make sure that the implemented capacity-building activities are country-owned and demand-driven.

The *PAKLIM* project in Indonesia represents a positive attempt by the donor community to employ a country-owned and demand-driven approach, which deserves wider application in other climate capacity building aid projects. This aid programme, funded by Germany for the period 2009–16, offers policy advice on climate change and strengthens capacity building on climate change mitigation and adaptation at national and local levels of governments (EU 2012). In terms of climate change mitigation, *PAKLIM* is aimed at assisting the Indonesian government launch a set of climate change strategies to reduce GHG emissions and pursue sustainable economy. In terms of climate change adaptation, it strives to help the government improve national climate policy frameworks for local level adaptation. In this process, the German donor designed, carried out and monitored climate change capacity-building measures jointly with the Indonesian government, deciding mutually what climate adaption measures to implement, and defining the measurement indicators for monitoring the effectiveness of the adopted climate capacity-building measures.

Table 2: Examples of capacity-building aid activities for ‘what could work’

Aid activities	What could work	Year and location	Donors
Innovative Insurance Products for Climate Change Adaptation			
	<ul style="list-style-type: none"> <li>Highlights the importance of enhancing internal capacity-building resources of developing countries.</li> <li>Aimed at enhancing knowledge and awareness of the stakeholders, to foster professionalism through training and to build the capacity of Ghana’s insurance sector.</li> </ul>	2009-13 Ghana	Germany
Water Programme for Environmental Sustainability (WPA)			
	<ul style="list-style-type: none"> <li>WPA forms an integral part of the long-term, multi-purpose and multi-sectoral climate aid programmes, where aid activities complement each other within existing national/regional climate adaptation and mitigation programmes.</li> <li>Successful implementation of WPA highlights the advantage of including capacity building as an integrated part of an overall climate aid programme.</li> </ul>	Effective from 2004 Serbia North Africa Vietnam and China	Italy
PAKLIM- Policy Advice on Climate Change and Environment			
	<ul style="list-style-type: none"> <li>Efforts by donor community to employ a country-owned and demand-driven approach in foreign aid for capacity building, highlighting the importance of ownership in capacity-building aid processes.</li> <li>Climate capacity-building measures were jointly designed, carried out and monitored by the donor and recipient government.</li> </ul>	2009-16 Indonesia	Germany

Source: Compiled by authors, based on various sources.

## 4 What is scalable

This section investigates what aspects of foreign aid for capacity building need to be delivered on a larger scale to enhance aid's positive effects for improving climate related capacities in developing countries. As identified by the UNFCCC synthesis report (2012), aid efforts need to be scaled up at least in the following areas to boost the climate change related capacity building. Examples of effective aid interventions are discussed in this section to illustrate where more capacity-building aid efforts are required. Table 3 gives a summary of the cases discussed in this section.

### 4.1 Enhance awareness and knowledge

As reported by many UNFCCC member countries, climate change and its impacts are still not well understood. As the World Bank points out (2010), misconceptions about the dynamics of climate change lead to complacency, and support for emission reduction policies is hampered by people's limited understanding of the dynamics of climate change.<sup>7</sup> For some developing countries, climate change is perceived to pose less risk than other hazards and is given low priority in national development plans. Therefore, more efforts are required to raise public awareness to the urgency of tackling climate change at all levels of society. Effective channels to enhance people's awareness include educational programmes to boost local understanding, and specific scholarship programmes to encourage research on climate change.

Capacity-building activities by Spain in the Iberoamerican region reflect the efforts from donor countries to increase awareness and knowledge of climate change impacts in developing countries. In collaboration with other multilateral and regional organizations, Spain has launched a number of aid projects in the region to improve the understanding of the relevance of climate change impacts, and to enhance the capacity of the developing countries to deal with these issues. This project has organized a series of climate related workshops, aimed at enhancing public awareness of climate change, building governments' capacity to design and implement climate strategies, and improving access to climate finance. Despite the progress achieved by this aid programme, much greater foreign aid efforts are needed to educate governments and the public of the urgency of tackling climate change in developing countries, many of which still lack adequate understanding of the climate change crisis.

### 4.2 Boosting international negotiation capacity

The least developed countries (LDC) are significantly impacted by climate change, but play a small part in international climate negotiations owing to the lack of relevant capacity. This calls for more aid efforts to scale up their ability to take part in international negotiations so as to win more support and help in battling climate change. Only through active involvement on the global arena can the voices and national interests of LDCs be better reflected in the international climate regime.

One such example is the NECTAR project (*Negociations Climate Toute l'Afrique Renforcee*), which is aimed at assisting African LCDs develop national strategies so as to enhance their

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<sup>7</sup> Many people actually misunderstand the risks of climate change, believing that stabilizing the GHG emissions at the current rate would stabilize GHG concentration in the atmosphere and stop further climate change (World Bank 2010).

capacity to participate in international negotiations and to target the obstacles<sup>8</sup> they face during talks (EU 2012). Implemented in 2008 and funded by France, the project organized a series of workshops to improve the capacity of African climate negotiators, to offer them relevant contacts within other countries, and to train governments in climate negotiation strategies and skills. As a result, the programme helped to enhance the LDCs' influence and bargaining power in the Durban conference not only because of better negotiating capacity but also because of strengthened alliances with other LDCs. Capacity-building aid programmes such as the NECTAR project will continue to benefit the LDCs by enabling them to make better use of new climate financing mechanisms after the launch of the Green Fund in Durban.

### 4.3 Green technology diffusion

UNFCCC parties have identified green technology transfer and development as one capacity-building area that calls for scaled-up aid efforts. As voiced by many developing nations, there must be more investment from the donors to develop local capacity to support green technology diffusion, both with regard to 'hard issues' and 'soft issues'. 'Hard issues' refer to the ability to access clean technology and having the skills to apply it. 'Soft issues' are the enabling conditions associated with the adoption/non-adoption of the technology in developing countries, including its cost, market failures that hinder its implementation, and issues related to technology design such as poor adaptation to local situations (UNFCCC 2012). Also impeding green technology development and transfer are the developing countries' lack of commitment to clean technology diffusion in national long-term sustainable development plans, and inadequate institutional capacity to support green technology adoption. But these obstacles can be conquered with scaled-up aid from the international community.

The *Regional Gateway for Technology Transfer and Climate Change Action* aid project exemplifies the efforts of the international aid community to facilitate capacity building for green technology transfer (UNFCCC 2012). Jointly funded by Spain and Norway in the amount of US\$ 7.2 million for the years 2011–13, the project is aimed at assisting Latin American countries boost the mobilization and sharing of knowledge on climate change issues covering the entire technology cycle, from green technology development, to clean technology transfer and employment, with regard to both 'hard issues' and 'soft issues'. The project helps recipient countries develop the necessary skills to access green technology, to integrate it within their national development strategies, and to create an enabling environment for the adoption of the technology.

The *Prosol Industrial* project in Tunisia, funded by Italy from 2010 to 2014, is aimed at designing an effective financing mechanism to overcome investment obstacles for the diffusion of solar thermal technologies into the industry (UNFCCC 2012). This aid programme represents a sound attempt by the international donor community to boost capacity to support green technology adoption, especially with regard to establishing an effective market mechanism to attract green investment.

The project *Capacity-building in Development of Policy Framework for Promotion of Low-carbon Emission Societies in Central Asia* is another example of scaled-up foreign aid efforts

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<sup>8</sup> The usual difficulties faced by LDCs include linguistic barriers, lack of scientific climate policy and action plans, and lack of coherent negotiation techniques and methodologies.

to enhance institutional capacities to overcome barriers to, and to promote, the diffusion of clean technologies (UNFCCC 2012). Funded by South Korea for the years 2009–13 to provide assistance with institutional capacity-building activities in Central Asia, this project is aimed at conquering the above-mentioned barriers by establishing an enabling framework for low-carbon technology development and transfer, including improving national institutions, raising public awareness on climate change, and developing markets for energy efficient technologies.

Table 3: Examples of capacity-building aid activities for 'what is scalable'

Aid activities	What is scalable	Year and location	Donors
<b>Capacity-Building Activities in the Iberoamerican Region</b>			
<ul style="list-style-type: none"> <li>Exemplifies donor efforts to boost awareness and knowledge of climate change impacts in developing countries.</li> <li>Similar efforts still needed to educate governments and the public of the urgency of tackling climate change in other developing countries, many of which still lack adequate understanding of climate change issues.</li> </ul>		2008-11 Ibero-American region	Spain
<b>Negotiations Climate Toute l'Afrique Renforcee (NECTAR)</b>			
<ul style="list-style-type: none"> <li>An example of donor efforts to boost LDCs' climate negotiation capacity.</li> <li>Aimed at assisting LDCs develop national strategies to enhance capacity to participate in international negotiations and to target obstacles in negotiations facing Africa.</li> </ul>		2008 African LDCs	France
<b>Regional Gateway for Technology Transfer and Climate Change Action</b>			
<ul style="list-style-type: none"> <li>An example of the efforts from the international aid community to facilitate capacity building for green technology transfers.</li> </ul>		2011–13	Spain and L-American Norway countries
<b>Prosol Industrial</b>			
<ul style="list-style-type: none"> <li>Aimed at design an effective financing mechanism to overcome investment obstacles in the diffusion of solar thermal technologies in the industry.</li> <li>Represents a sound example of international donor community efforts to boost capacities to support green technology adoption efforts, and establish market mechanisms for attracting green investment.</li> </ul>		2010–14 Tunisia	Italy
<b>Capacity Building in Development of Policy Framework for Promotion of Low-carbon Emission Societies</b>			
<ul style="list-style-type: none"> <li>Example of scaled-up foreign aid efforts to enhance institutional capacities with regard to the diffusion of clean technologies.</li> <li>More efforts are needed to build relevant capacities to establish an environment conducive to green technology diffusion and to reduce barriers to green technologies and services.</li> </ul>		2009–13 Central Asia	South Korea
<b>Intergovernmental Panel on Climate Change Scholarship</b>			
<ul style="list-style-type: none"> <li>Offers young people in developing countries new opportunities to study (PhD level) and contribute climate change research.</li> </ul>		ongoing LDCs	IPCC
<b>Youth and United Nations Global Alliance education programme on climate change</b>			
<ul style="list-style-type: none"> <li>Aimed at children and youth to promote their participation in climate change mitigation and adaptation activities.</li> <li>Due to a shortage of similar programmes for climate change education in the LDCs, more aid efforts are called for.</li> </ul>		2011–11 worldwide	FAO, UN and youth agencies

Source: Compiled by authors, based on various sources.

In spite of the progress being made in developing country capacity for adopting clean technology, it is clear that greater efforts are still needed to generate the expertise needed to establish an environment that is advantageous to the diffusion of green technology and to reduce the barriers hindering green technologies and services.

#### **4.4 Training climate change professionals**

Scaled-up capacity-building aid support is urgently required to deal with the shortage of climate change professionals in Africa, especially at the PhD and postdoctoral levels. This is viewed as one of the critical impediments to the dissemination of climate related information and knowledge, and the conduct of scientific climate research. PhDs and postdoctoral researchers could also contribute to furthering the standard of education in the LDCs, which lack sufficient professional teaching staff for undergraduate and postgraduate study on climate change.

Among the existing aid efforts in this regard is the *Intergovernmental Panel on Climate Change Scholarship* programme, which offers selected young people in developing countries new opportunities to study and contribute to climate change research (UNFCCC 2012) by funding their PhD studies. The *Youth and United Nations Global Alliance Education Programme on Climate Change* targets children and youth to promote participation in climate change mitigation and adaptation activities, and to encourage their involvement in international climate negotiation processes.<sup>9</sup> Despite the positive effects of the existing educational schemes, there is a shortage of similar aid programmes to meet the educational needs related to climate change in LDCs. More aid efforts are therefore called for in order bridge this gap.

### **5 What is transferrable**

This section investigates and discusses what experiences gained from existing aid projects can be transferred across countries or across projects, and what aspects of aid interventions are potentially transferrable. In fact, almost all of the successful approaches summarized in Section 2 ('what works') are transferred, albeit with modifications to cater to local circumstances. The following practices in particular should find application within a wider context (summarized in Table 4).

#### **5.1 Transfer of country-owned and demand driven approach**

The country-owned and demand driven approach promoted by OECD, UNEP and the World Bank is transferrable to other capacity-building programmes by other donors. It highlights the importance of shifting the focus of capacity-building aid from technical assistance 'fixes' and supply-driven aid to a demand-driven, outcome-based and country-owned approach (Levina 2002; World Bank 2005; UNEP 2009). Similarly, the EU finds that the principle of a scientific and systematic approach has been effective in its climate change capacity-building programmes. This implies that such an approach could be transferred to other aid programmes for wider application within the donor community. The fact that this approach has found successful applications among numerous international donor projects demonstrates

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<sup>9</sup> This aid project is jointly organized by FAO, other UN agencies and youth organizations (UNFCCC 2012).

that the principle is transferrable to other capacity-building aid cases, and should be advocated in a wider context once local features ‘based on local ownership, demand driven-processes and responding to expressed needs of partners’ are added.

## **5.2 Transfer of knowledge and experience**

The *Innovative Insurance Products for Climate Change Adaptation* aid programme discussed earlier is a good example for knowledge sharing and capacity building across Africa and beyond, particularly in terms of narrowing the gap between internal and external capacity-building resources. As specified in the project objectives, experiences are to be systematically collected and distributed to other countries, and will also transferred to other climate change aid programmes with similar circumstances (EU 2012).

## **5.3 Transfer of CDM knowledge and practice**

The CDM is a flexible market mechanism under the Kyoto Protocol, offering developing countries an opportunity to benefit from investments in emission reduction development projects.<sup>10</sup> According to the UNFCCC (2012), some developing countries have reported considerable progress in registered CDM project activities while others have been less successful because of limited technical capacity, political understanding or will. In comparison, countries with successful CDM experiences have developed the complementary technical capacity to be able to achieve CDM objectives, thanks to donor support that covered marketing, training, information dissemination, and market development (UNFCCC 2012). The positive experiences gained from aid projects earmarked to CDM development are transferrable to any developing nation in urgent need of similar support in order to take advantage of CDM and emission reduction investments.

Plausible aid efforts to boost developing nations’ capacity of launching CDM projects include a UNDP aid project which offered capacity-building support for Bosnia and Herzegovina in establishing and adopting national rules and procedures for CDM approval. Training was also provided on the procedures for registering CDM projects. This scheme has generated encouraging results; a pipeline of projects is being created, and another approved and submitted to UNFCCC. Another UNEP aid programme that offers sound lessons is the *Capacity Development for the African, Caribbean and Pacific Capacity Development for the CDM*. This programme strives to enhance the capacity of aid recipient countries for identifying, designing, approving, financing, implementing and monitoring CDM projects. These activities help remove capacity barriers that hinder developing countries from fostering a robust carbon market and from utilizing the CDM for low-carbon development.

A series of workshops has also been organized by international donors to disseminate CDM information and knowledge, provide training on project application, and share good capacity-building practices for CDM project development. Examples include the UNFCCC workshops *on enhancing the regional distribution of CDM projects in Asia and the Pacific* and the *stakeholder consultation workshop on standardized baseline under the CDM* to facilitate the access of under-represented regions by enhancing their understanding of standardized baselines (UNFCCC 2012).

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<sup>10</sup> As specified in Article 12 of the Kyoto Protocol, CDM was set up with two major yet equally important aims: to mitigate GHG emissions in a cost-effective manner, and to boost sustainable development in the host countries.

Table 4: Examples of capacity-building aid activities for ‘what is transferrable’

Aid activities	What is transferrable	Year and location	Donors
Support to CDM Establishment and Operationalization			
	<ul style="list-style-type: none"> <li>Represents a sound example of plausible aid efforts to boost developing nations' capacity of launching CDM projects.</li> <li>Project experiences are transferrable to other similar projects.</li> </ul>	2011 Bosnia & Herzegovina	UNDP
Capacity Development for the African, Caribbean and Pacific Capacity Development for the CDM			
	<ul style="list-style-type: none"> <li>Countries successful in registering CDM projects have developed the complementary technical capacity to achieve the CDM objectives. This programme helps to remove capacity barriers hindering countries from fostering a robust carbon market and from utilizing the CDM scheme for low-carbon development.</li> </ul>	Ongoing worldwide	UNEP
Workshop on Enhancing the Regional Distribution of CDM Projects			
	<ul style="list-style-type: none"> <li>Organized to disseminate CDM information and knowledge, provide training on project application, and share good capacity-building practices for CDM project development among developing nations.</li> </ul>	2011 Nepal	UNFCCC
Stakeholder Consultation Workshop on Standardized Baseline under CDM			
	<ul style="list-style-type: none"> <li>Aimed at promoting the transfer of good practices and dissemination of CDM knowledge of the CDM among developing nations, this workshop facilitates the access of under-represented regions to the CDM by enhancing their understanding of standardized baselines.</li> </ul>	2011 Nepal	UNFCCC

Source: Compiled by authors, based on various sources.

## 6 Conclusion

Capacity building is at the root of all effective foreign aid efforts in driving sustainable development. As highlighted by UNDP (2011b), successful development of a nation depends on sufficient capacity. Without supportive policies, laws, institutions and education in place, a country simply does not have the foundation to pursue long-term and well-rounded development. It is important that donors shift the focus of foreign aid for capacity building from technical assistance ‘fixes’ and supply-driven aid to a demand-driven, outcome-based and country-owned approach. Given its cross-cutting nature, foreign aid for capacity building should be an integral part of support arrangements in all relevant areas, from climate change adaptation and mitigation, response measures, green technology transfer to development of low-carbon market mechanisms. Also, it should be a long-term iterative process, applied in a flexible and adaptive manner so as to take changing circumstances and emerging challenges into consideration. Although aid generally has a positive effect on the availability of finance, it can at times have a negative impact on governance, and thus undermine government actions. Therefore, foreign aid for capacity building should be delivered with care and purpose so as to improve the effectiveness of capacity building in developing countries (Barnett 2008).

Although there is no recipe that ‘fits-all’ to tackle all climate change related capacity-building problems, most of the experiences and lessons discussed here are transferrable to a wider context, albeit with modifications to fit local circumstances. However, it is important to note that all the identified barriers that impede capacity building are interrelated, although they are discussed here separately for the convenience of the reader. It is unlikely that fixing one or

two problems can make capacity building work, and all these challenges need to be tackled in an integrated way.

Capacity building is important, yet it is not easy to measure the effectiveness of foreign aid capacity-building interventions because of the ‘soft’ and dynamic nature of capacity. By answering the four essential questions of ‘what works’, ‘what could work’, ‘what is scalable’ and ‘what is transferrable’, this paper makes an attempt to investigate how effective is foreign aid at present with regard to capacity building, and how to improve future aid projects by taking advantage of past experiences and lessons, inviting further research to deepen our understanding of this significant issue.

## References

- Barnett, J. (2008). ‘The Effect of Aid on Capacity to Adapt to Climate Change: Insights from Niue’. *Political Science*, 60(1): 31–45.
- Degnol-Martinussen, J. (2002). ‘Development Goals, Governance and Capacity Building: Aid as a Catalyst’. *Development and Change*, 33(2): 269–79.
- Hallegatte, S., G. Hela, M. Fay, and D. Treguer (2011). ‘From Growth to Green Growth: A Framework’. WB Policy Research Working Paper 5872. Washington, DC: World Bank.
- Howes, S., and P. Wyrwoll (2012). ‘Climate Change Mitigation and Green Growth in Developing Asia’. ADBI Working Paper 369. Tokyo: Asian Development Bank Institute.
- Levina, E. (2002). ‘Climate Change Capacity Building in Annex I EITs: Issues and Needs’. OECD Report. Paris: OECD.
- Roberts, J. T., and B. Parks (2006). *A Climate of Injustice: Global Inequality, North-South Politics, and Climate Policy*. Cambridge, MA: MIT Press.
- EU (European Union) (2012). Submission by Denmark and the European Commission on Behalf of the European Union and its Member States. Capacity-building under the Convention and under the Kyoto Protocol: Information on the Activities Undertaken Pursuant to Decisions 2/CP.7, 2/CP.10 and 29/CMP.1.
- World Bank (2005). *Capacity Building in Africa: An OED Evaluation of World Bank Support*. Washington, DC: OEC-World Bank.
- World Bank (2010). *World Development Report: Development and Climate Change*. Washington, DC: World Bank.
- UNDP (United Nations Development Programme) (2009). *Capacity Development: A UNDP Primer*. New York: UNDP.
- UNDP (2011a). *Practitioners’ Guide: Capacity Development for Environmental Sustainability*. New York: UNDP.
- UNDP (2011b). ‘Supporting Capacity Development’. New York: UNDP.
- UNFCCC (UN Framework Convention on Climate Change) (2012). ‘Synthesis Report on the Implementation of the Framework for Capacity-Building in Developing Countries’. Bonn: UNFCCC.
- Van de Walle, N., and T. A. Johnston (1996). *Improving Aid to Africa*. Washington, DC: Overseas Development Council.