

Climate and Development Outlook

Stories of change from CDKN

Bangladesh Special Edition

FUEL SUBSIDIES VERSUS CLIMATE ADAPTATION

By **Areej Riaz**, CDKN

Standing in her harvested rice paddy in Satkhira District, Safeenah Begum can see her farmland shrinking due to saltwater intrusion – one of the many impacts of climate change to which Bangladesh is vulnerable. She wonders what the year will hold: whether she will earn enough to pay for treatment for her bedridden husband, or if her three teenage sons will be able to go to school instead of looking for work.

“There are many families similar to ours,” she says. “Their ancestors spent their lives feeding themselves and the country through farming. Now, we hardly have enough for [ourselves].” Safeenah’s family have put their faith in the government, hoping for aid. “Shouldn’t the Government

help us now that we are in need, because of things beyond our control?”

Can the Government help? While Bangladesh’s economy is heading towards middle-income status by 2021, there is currently little to spare for social development projects. And yet Bangladesh spent more on fuel subsidies in 2012-2013 – about US\$1.7 bn, around 1.1% of gross domestic product – than the amount of public spending on health (*A Citizens’ Guide to Energy Subsidies in Bangladesh*, 2012: www.iisd.org/gsi/sites/default/files/ffs_bangladesh_czguide.pdf).

Bangladesh is an oil-importing country and its state-controlled fuel prices require significant subsidies to bridge the gap between the price of fuel and the costs of supply. Not only is this a huge burden on the national budget, it also limits the Government’s ability to spend on other social and development projects – including adaptation to climate change.

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Climate and Development Knowledge Network

Helping developing countries to design and deliver climate compatible development

Bangladesh’s climate and development

Bangladesh has always been prone to natural hazards such as cyclones and floods. Impacts of climate change have only increased the frequency and intensity of these extreme events, accompanied by rising sea levels. The country also suffers from the effects of over-population and low development making it one of the most vulnerable to the impacts of climate change, consistently ranked at the top of various climate vulnerability indices. These effects are only going to be exacerbated in the years to come, adversely impacting agricultural production as well.

On the other hand, led by a booming export-oriented textile sector, the economy of Bangladesh has been growing at a very healthy rate during the past decade – at an average of over 6% per year – enabling it to achieve the per capita income level of low middle-income countries. The challenge is to sustain this robust economic growth while adapting to and mitigating the effects of climate change.

For more information see <https://cdkn.org/regions/bangladesh>

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GUEST COLUMN

Showing the big emitters how it's done

BY JAMES HARRIES

Imagine a country that contributes just 0.35% of global greenhouse gas emissions, and yet is already being ravaged by the effects of climate change; where almost one third of the population lives below the poverty line, and faces further hardships in one of the world's most climate-vulnerable nations. Would you expect this country to be a world leader in plans to reduce its greenhouse gas emissions, or to increase its energy efficiency? Yet that is what's happening today in Bangladesh.



For two years, CDKN has been supporting the Government of Bangladesh in its work on the Paris Agreement, with technical expertise supplied by Ricardo Energy & Environment. For example, Bangladesh was one of the first climate-vulnerable countries to develop plans to implement its Nationally Determined Contribution (NDC); Ricardo is now helping to develop sectoral action plans and a roadmap to deliver these commitments.

The fact that Bangladesh, a country with many serious economic, social and environmental challenges, is leading the way shows others what can be done. Having been involved in this process, I have drawn three main lessons:

- give stakeholders a platform to discuss issues such as mitigation, rather than assuming that adaptation will be the focus for everyone
- tap into the creativity and innovation that exists in countries such as Bangladesh

- tackle climate change in the context of national development priorities.

It is easy to assume that strengthening climate resilience and adapting to unavoidable climate change are the top priorities for vulnerable countries like Bangladesh, and that they will not be so focused on reducing emissions. But our experience suggests that this is overly simplistic. In 2016, my colleagues were in Dhaka for a meeting with government representatives and other stakeholders about the Intended Nationally Determined Contributions (INDCs). One of the attendees explained that, up to that point, mitigation had been a “dirty word” in Bangladesh and that it was refreshing that the INDCs provided a platform to finally have a serious conversation about Bangladesh's greenhouse gas emissions. This shows that sometimes people are simply waiting to debate a specific topic; providing a platform for this is therefore imperative, and central to the good work that CDKN and others do.

This year, I have been further struck by the enthusiasm and creativity from stakeholders around the subject of mitigation. At a meeting with the Ministry of Road Transport and Bridges, I was met with boundless enthusiasm and ideas; I could barely keep up with my notes as people from different parts of the ministry came up with ideas to reduce the carbon footprint of road transport. These included innovative ideas such as measures to discourage the ‘empty running’ of trucks, and adapting existing measures such as road tolls to incorporate greenhouse gas emissions.

When engaging with a country on mitigation, it helps to ‘speak the language’ of stakeholders. When I met with the Ministry of Industry, for example, I spoke of industry's role in economic development and growth, and how energy efficiency could increase productivity – a key priority for the Government. This met with enthusiasm, with the chair of the meeting proclaiming support for a robust NDC implementation plan for the industry sector.

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A common problem in developing and developed countries is the fact that driving action on climate change is often left to the ministry responsible for the environment. But it is usually other ministries that hold the levers for achieving this. Mainstreaming climate change into sectoral line ministries is the ultimate goal for climate policy-making. This does not happen overnight, so to see sectoral line ministries in Bangladesh taking such an interest in – and, importantly, ownership of – NDC implementation bodes well for the future.

This implementation is already under way. For example, the Sustainable and Renewable Energy Development Authority is already following up its programme of energy audits, and plans to establish an energy service company and concessional financing to deliver on the recommendations from these audits. Where immediate action is not possible, the sectoral action plans we are developing will set out the next steps to inform future decisions.

By implementing its NDC and developing plans to reduce its emissions, Bangladesh is becoming a cleaner, more efficient, more productive and more modern country. It is showing how reducing emissions is not something to do in spite of growth, but a way to reinforce growth. And in doing so, Bangladesh is showing other countries – including larger emitters – the way forward.

Energy subsidies in Bangladesh also have environmental impacts. As Azizur Rahman, a correspondent at *The Financial Express*, explains, “subsidies to end-users in Bangladesh have resulted in increased fuel consumption. The more fuel burned, the more airborne emissions produced. Bangladesh may contribute very little to global carbon emissions, but urban air pollution caused by increased and inefficient fuel consumption, [for example] in the transport, brick construction and industrial sectors, wreaks havoc on the health sector.”

The recent global decline in oil prices has seen Bangladesh’s oil import bill reduce, resulting in an annual saving for the state-owned Bangladesh Petroleum Corporation of around 200 bn Taka (US\$2.6 bn). This presents a window of opportunity for the Government to consider substantial reforms to its fuel subsidies and alleviate the burden they place on the national budget. This could free up money for enhanced social spending on poor people, better fiscal sustainability, more efficient resource allocation, increased investments and higher growth.

CDKN is supporting the UK’s Department for International Development to provide the Government of Bangladesh with evidence-based analysis on different options for fuel subsidy reforms, pertaining to a market-based domestic oil price mechanism and deregulation of the domestic oil market. Meanwhile, the Dhaka-

based Policy Research Institute is conducting a rigorous economic analysis of these potential reforms with a view to advising the Government on fuel subsidy reforms.

Laura Merrill, a fuel subsidy expert at the International Institute for Sustainable Development in Canada, believes this analysis will provide guidance on how to pace the reform, and identify good practices. “There are three core elements to consider: getting the price right, i.e. how to change pricing systems for fossil fuels; managing the impacts, i.e. estimating the effects of reform and mitigating unwanted impacts; and building support, i.e. internal organisation, and external consultation and communication.”

Safeenah Begum’s story (page 1) highlights just how climate change impacts are contributing to ‘poverty traps’ in Bangladesh, and why assistance from the Government and other external actors may be needed to help people like her to escape from poverty. The conversation about fossil fuel-based energy subsidies and their connection to greenhouse gas emissions, and the related issue of how Government funds could be used in the service of development, will be critical if Safeenah and her family and others like her are to have a safe, happy and climate-resilient future.



A LOSS AND DAMAGE INITIATIVE PRIORITISES ACTION ON THE GROUND

By **Munjurul Hannan Khan** and **Areej Riaz**, CDKN

The Bali Action Plan, produced by Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in 2007, officially put climate-related loss and damage on the international agenda. Subsequent climate negotiations led to the development of the Warsaw International Mechanism on Loss and Damage in 2013, and culminated in the Paris Agreement in 2015, which included a dedicated section on loss and damage. The Paris text focused on how the international community can support climate-vulnerable countries in areas such as strengthening early warning systems, emergency preparedness and comprehensive risk assessments – all of which help to minimise loss and damage.

For Bangladesh, a country that faces sea-level rise and droughts, among other climate impacts, the global discourse on loss and damage is an opportunity to introduce innovative methods and tools to improve the evidence base, to help understand these issues. Bangladesh aspires to amplify the voices of the vulnerable from the ground, advocating for stronger action at the international level while using the increased knowledge to articulate problems nationally and move towards developing local solutions.

CDKN is engaging with climate-vulnerable countries to increase understanding on loss and damage and facilitate efforts to address the adverse impacts of climate change. We collaborated with the Government of Bangladesh on a project called ‘Loss and Damage Initiatives in Vulnerable Countries’ during 2011-2013. This project helped to increase understanding of loss and damage, and generated

momentum and commitment to act on this issue. It also helped countries to present an evidence-based position in international- and national-level forums.

Global understanding of loss and damage benefitted immensely from the project, for example through seven national-level research papers and six case studies that outlined a new methodology for assessing loss and damage at the ground level. This provided international actors in the UNFCCC with compelling community-level evidence that carried the credibility of published research.

CDKN has continued to engage with relevant stakeholders in Bangladesh, including the Department of Disaster Management, to frame national mechanisms to address loss and damage at the national level. For example, CDKN facilitated a national workshop in 2016, in collaboration with ActionAid, Care International, the International Centre for Climate

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Change and Development (ICCCAD) and other partners, to design a national mechanism to align loss and damage with the Warsaw International Mechanism. This workshop increased knowledge and understanding of comprehensive risk management approaches; strengthened dialogue, coordination, coherence and synergies among relevant stakeholders; and enhanced action and support, including through finance, technology and capacity-building.

“Partnership with CDKN is critical for enhancing our understanding on loss and damage and capturing vulnerability to strengthen our arguments at the global forum,” says Riaz Ahmed, Director General, Department of Disaster Management. “[This highlights the] importance of loss and damage, [which needs] to be addressed immediately and urgently to reduce misery ... in climate-vulnerable countries, including Bangladesh.”

The CDKN-led national debate has identified, for example, that identifying, measuring and characterising loss and damage are primary requirements for developing a local, national, regional and/or international framework. The discourse also led to the unanimous recognition that national mechanisms, with clear links to, and synergies with, the Warsaw International Mechanism, are needed to address loss and damage. Further, a decision was made to constitute a National Steering Committee of the National Mechanism for Loss and Damage, consisting of high-level policy-makers and relevant experts.

CDKN’s support for the generation of knowledge and information has helped to establish a platform for this domestic discourse about loss and damage, and the momentum needed to address it. Through the extensive array of knowledge products created, CDKN’s efforts have added value to global efforts to address this issue.

“It takes persistent work and strong partnerships to reduce people’s vulnerability to such climate impacts. CDKN has remained committed to working with local, national and international partners in this task, and to helping the Government of Bangladesh to demonstrate its international leadership on climate resilience”

ALI TAUQEER SHEIKH,
CDKN ASIA DIRECTOR



On our website you will find:

- Learning paper capturing lessons from the development of Bangladesh’s Intended Nationally Determined Contributions (INDC)
- Green Climate Fund (GCF) project toolkit: Guide to develop a project proposal for GCF, guiding development of climate projects
- How can Bangladesh’s private sector engage with the Green Climate Fund? Toolkit for Bangladesh private sector
- Business case for the Bangladeshi private sector to invest in climate change and access international climate finance



CLIMATE FINANCE READINESS IN THE PRIVATE SECTOR

By **Virginie Fayolle**, Acclimatise

Climate change is putting at risk decades of development gains in Bangladesh. The costs of climate change to Bangladesh could amount to an annual loss of 2% of gross domestic product by 2050, and 9.4% by 2100, if prompt action is not taken at the global scale (Asian Development Bank News Release, 2014: www.adb.org/news/bangladesh-could-see-climate-change-losses-reach-over-9-gdp-report).

With this in mind, it is little surprise that Bangladesh has a track record of international leadership and innovation in responding to climate change. However, given the high costs of mitigating and adapting, and the country's public budget constraints, engagement with the private sector is needed to scale up existing investments in climate compatible development. The World Bank has estimated the scale of total finance required for adaptation in Bangladesh by 2050

at US\$5.7 bn, which is likely to be a gross underestimate (*The Cost of Adapting to Extreme Weather Events in a Changing Climate*, 2011: <http://documents.worldbank.org/curated/en/716231468014361142/pdf/678450NWP0Box3000BDS28ClimateChange.pdf>). Mitigation investment needs are less certain, but costs of key mitigation actions have been estimated at around US\$27 bn between 2011 and 2030.

In conjunction with ICCCAD in Bangladesh, Acclimatise (UK) and the International Institute for Environment and Development (UK) have engaged 25 businesses from six economic sectors – energy, insurance, banking, agribusiness, brick-making and garments – to discuss the opportunities and challenges they face when investing in climate-related goods and services. Starting in February 2015, this CDKN-supported initiative is exploring the business case for private sector investment in climate-related activities in Bangladesh, which will contribute to the country's long-term goal of establishing a sustainable economy (see *Bangladesh*

Climate Change Strategy and Action Plan 2008: <http://adaptation-undp.org/resources/plans-and-policies-relevance-naps-least-developed-countries-ldcs/bangladesh-climate-change> and *Bangladesh Country Investment Plan 2011-2015*: www.fao.org/fileadmin/user_upload/faobd/docs/CIP/Bangladesh_Food_security_CIP_2011_Final_-_DG-3Aug.pdf).

But what's in it for the private sector? For a start, climate change poses both risks and opportunities for businesses. Their assets, operations and supply chains are at risk from climate change, threatening their income streams. But climate change also presents opportunities, for example to develop and market new goods and services, increase efficiencies, protect supply chains and gain reputational benefits. Figure 1 captures some of these opportunities and risks.

For many of the businesses we engaged with, climate change offers an opportunity to take action on issues and areas that are already important to them. These range from

changes in the nutrient balance, moisture levels and salinity of soils, to changing precipitation patterns that lead to the need for early harvests.

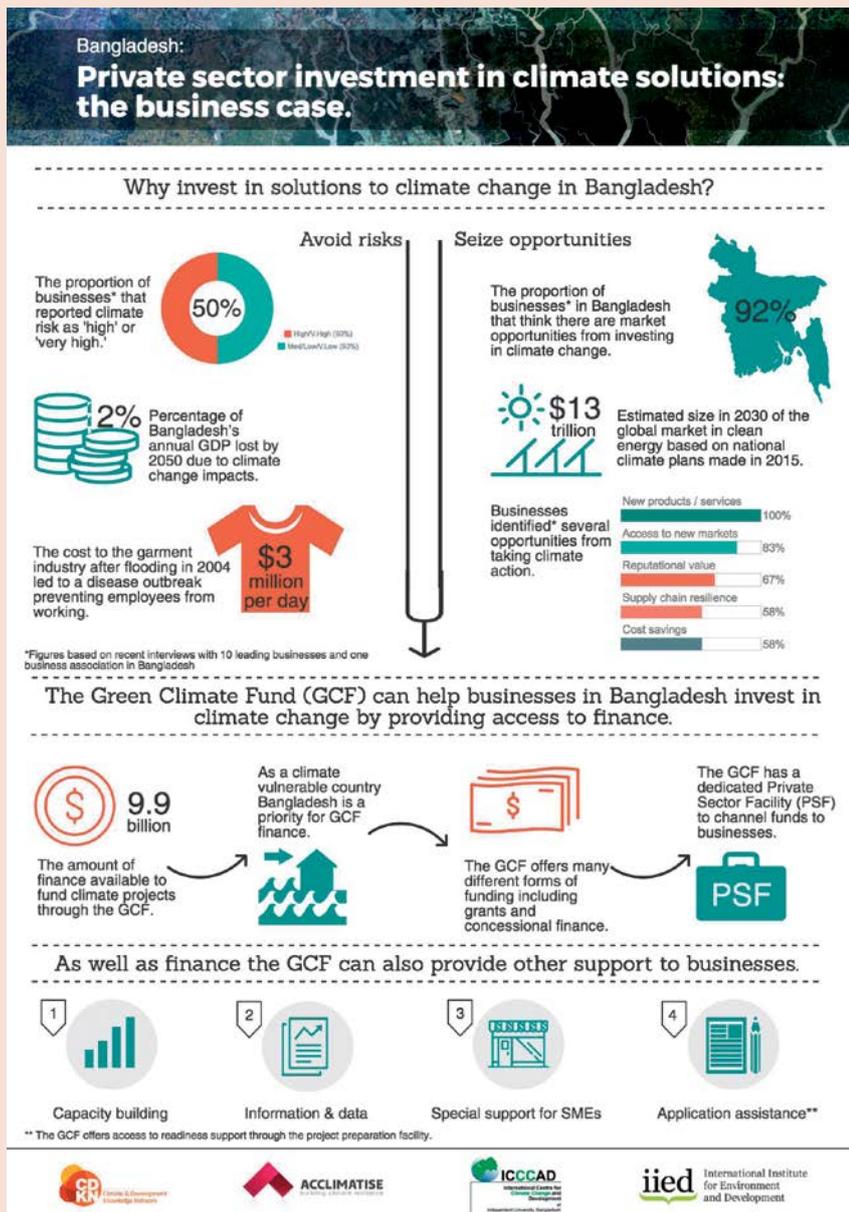
So who are the first movers in Bangladesh's private sector? One is Advanced Chemical Industries (ACI) Agribusiness and ACI Agrolink Limited, which has identified and pursued opportunities to develop agricultural machinery that can reduce total harvesting times when early harvests are required. The company is also actively investing in research and development to develop and market climate-resilient seed varieties in response to changing climate patterns, such

as longer periods of drought and increased salinity.

According to Mr Mohammad Saifullah, Chief Strategy Officer of ACI Agribusiness and ACI Agrolink Limited, "a climate-resilient variety ... increases the reputation and also the business – it's big business. If the seed is developed in our country, [there is a] pretty high gross profit, compared to imported products ... the market is very wide ... demand [is] increasing." With the business case already clear, these first movers now want to know: how can we access finance from the Green Climate Fund to scale up existing climate-related investments? There

are two ways: either as an Accredited Entity or as an Executing Entity. While concerns were raised about the long, complex process of *becoming* an Accredited Entity, accessing funds through Accredited Entities that already operate in Bangladesh, such as the United Nations Development Programme, shows promise for offering immediate returns to private businesses. In January 2017, our project provided focused capacity-building and training to build the readiness of these first movers in Bangladesh, helping them to develop concept notes to access the Green Climate Fund.

Figure 1. The business case for investing in climate-related activities



"The Ministry of Environment and Forestry is pleased to be working with the Climate and Development Knowledge Network in addressing climate change impacts. The contributions of CDKN in developing the INDC as well as NDC Implementation Roadmap are highly appreciated. This knowledge support will be very beneficial for shaping our national planning process for achieving the sustainable development of Bangladesh. Also, we are recognising CDKN's support for strengthening and enhancing capacities of the private sector to access climate finance from the global architecture."

NURUL KARIM, ADDITIONAL SECRETARY, MINISTRY OF ENVIRONMENT AND FORESTRY



BANGLADESH CLIMATE MIGRATION ON FILM: 'LIVING ON THE GO'

CDKN supported research into the causes and consequences of climate change-related migration in Bangladesh in 2013-2014, and commissioned a documentary about the findings. Produced by Television Trust for the Environment, the film 'Living on the go' follows a group of researchers from Bangladesh and the UK as they investigate how climate change is causing people to migrate within Bangladesh as a way of coping.

The film-makers interview members of communities in the Gabura, Satkhira region who were affected by Cyclone Aila in 2009. Some families, exasperated by the damage to croplands, decide to migrate to inland cities for good, while others try their hand at seasonal work in the city, returning to their home village every few weeks or months.

"When people are in stress, they use migration as a climate change adaptation tool," said Dr Tasneem Siddiqui, principal investigator of the research study and a founding chair of the Refugee and Migratory Movements Research Unit at the University of Dhaka.

The researchers came up with policy recommendations – such as increased protections for rural-urban migrants – which are discussed both on film and in the project's policy briefings and reports. At the request of the UN's International Organization for Migration, the film was screened to thousands of visitors at a special exhibit on climate-related migration in Paris during the period of UNFCCC COP 21.

Watch 'Living on the Go' on CDKN's YouTube channel: https://www.youtube.com/watch?v=Gz_EnVwRIw

The Climate and Development Knowledge Network (CDKN) aims to help decision-makers in developing countries design and deliver climate compatible development. We do this by providing demand-led research and technical assistance, and channeling the best available knowledge on climate change and development to support policy processes at the country and international levels. CDKN is managed by an alliance of five organisations that brings together a wide range of expertise and experience.

For more information, including CDKN's films, reports, project descriptions and blogs about Bangladesh, please visit: www.cdkn.org/regions/bangladesh

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