

THE MITIGATION EFFECT



Table of content

P. 3	Editorial <ul style="list-style-type: none">• Mitigation – A new milestone for GCCA+ support• Climate Smart Africa: GCCA+ Regional Conference in Rwanda
P. 5	Climate forward <ul style="list-style-type: none">• How women-led businesses are tackling Africa's plague of unmanaged waste
P. 6	Case studies <ul style="list-style-type: none">• Nigeria: from an environmental catastrophe to a business opportunity• Liberia: the huge fight of a small country against poor waste management
P. 8	The GCCA+ Barometer <ul style="list-style-type: none">• GCCA+ Direct effect on GHG emission reduction• GCCA/GCCA+ Mitigation related activities
P. 11	The Best of Practices <ul style="list-style-type: none">• What defines a successful mitigation intervention?

PHOTO CREDITS

Front Cover	© EU GCCA+ 2018 Photo Imani Nsamila, Tanga East Usambara forest
Page 3	© EU GCCA+ 2018 Liberia, Cleaning the streets in Paynesville city
Page 5	Nigeria, Fresh fruits in the Farmers market, Photo DI Tayvay
Page 6	© EU GCCA+ 2019 Nigeria, Ubagama Dumpsite in Kano State
Page 7	© EU GCCA+ 2019 Liberia, Cleaning the streets in greater Monrovia
Back Cover	© EU GCCA+ 2019 Photo Thoko Tembo, Malawi, cooking with an improved stove to preserve the local forest

Editor: Francesca Predazzi



Mitigation – A new milestone for GCCA+ support

Jane Wilkinson

"GCCA+ support has been extended to include mitigation actions in energy, industry, waste management and agriculture"

When the Global Climate Change Alliance (GCCA) was conceived in 2007, the context of international climate action and support was very different from today. In November 2007, 38 industrialised countries made final preparations to mitigate and cut emissions under the first commitment period of the Kyoto Protocol which started on 1 January 2008. In that month, 192 Parties met in Bali to agree the Bali Action Plan (BAP) which set out a multilateral road map towards a new global agreement made up of five pillars: a shared vision on long-term cooperative action, adaptation, mitigation, technology and financing.

Having started with just four pilot projects in 2008, the GCCA became one of the EU's major climate initiatives with a global scope. Between 2007–2014, EUR 317.5 million went to support adaptation, resilience and disaster risk reduction in the poorest and most vulnerable countries in Africa, Asia, the Caribbean and the Pacific. In many ways, the GCCA encapsulated the

spirit of the BAP, signalling the European Union's commitment to support climate action in developing countries, including by increasing climate funding for those who needed it most by focusing on adaptation and technical capacity, and to build a global coalition of the willing.

Between 2007 and 2015, with membership having expanded to 196 countries, the UNFCCC Conference of the Parties incrementally stepped towards global action agreed by 195 Parties in Paris in December 2015. A cornerstone of the ambitious Paris Agreement with its 1.5 °C benchmark, is the recognition that rapid industrialisation has put successful climate action beyond the capacity of the 36 developed country Parties to the Kyoto Protocol that had committed to reduce emissions, which in 2014 contributed less than 16% of total global ghg emissions. Global mitigation action is a necessity.

Unlike the top-down targets set under

"Global mitigation action is a necessity"

the Kyoto Protocol, the Paris Agreement includes a new country-owned system of Nationally Determined Contributions (NDCs). NDCs were conceived as a vehicle for all countries to table their voluntary contributions to global mitigation efforts. Over time, these would be subject to transparent accounting rules, reviews, and a ratcheting mechanism to encourage ever-increasing ambition. Many developing countries included their adaptation actions and financing needs, which meant that the NDCs quickly became a powerful entry point for planning for, and implementing, climate action.

Following a review of the GCCA first phase in 2014, GCCA+ was launched in 2015 with some important adjustments that kept pace with the new drive for mitigation by all. The GCCA+ Flagship Initiative has expanded the scope of potential partners from Least Developed Countries and Small Island Developing States to middle-income countries, and the scope of action to include mitigation. This exciting development is leveraging key elements of the UN Sustainable Development Goals that seek to speed up development while leapfrogging traditional carbon-intensive technologies.

At the time of writing, GCCA+ support has already been extended to included

mitigation actions in energy, industry, waste management and agriculture. By December 2020, the GCCA+ will have provided EUR 750 million to around 90 programmes, making it one of the most significant sources of climate finance outside multilateral and bilateral funds.

This issue of the magazine introduces the new repository of resources on adaptation and mitigation, covering Intergovernmental Panel on Climate Change (IPCC) methodologies and providing technical explanations and case studies for practitioners. The repository will be a living tool kit which will be updated at least annually. At the 25th Conference of the Parties in Madrid under Chilean presidency, we are sharing some of our work in the waste-management sector in Africa – noting this is a sector in which countries can achieve mitigation and huge public health benefits at the same time. It is also a sector ripe for private-sector investment, which makes it attractive to a new group of domestic and international actors.

As with all GCCA+ support, we invite governments to approach EU delegations in their country to request support to implement NDC actions. The EU and the GCCA+ are committed to climate action that leaves no-one behind.

"By December 2020, the GCCA+ will have provided EUR 750 million to around 90 programmes making it a most significant source of climate finance"

Climate Smart Africa

GCCA+ 2019 Regional Conference in Rwanda

The GCCA+ hosted its regional conference 'Climate Smart Africa: Harnessing Growth and Protecting the Gains' in Kigali, Rwanda, on 15–18 October 2019. It brought together climate change project managers, policy experts and decision-makers to consider how ecosystem-based approaches, sustainable landscapes, and systemic approaches to NDCs and climate finance can help to unlock growth and long-

term development for African countries. Of the GCCA+ funds for 2007–2020 totalling EUR 750 million, two-thirds will go to African projects, making the GCCA+ one of the most significant sources of climate finance for Africa.

Conference reports and presentations are available at: www.gcca.eu/



Climate forward

How women-led businesses are tackling Africa's plague of unmanaged waste



"Waste is a problem, but if it is approached strategically, it can drive new business opportunities"

"Women are pivotal in triggering the behavioural change necessary to shift away from missed opportunities towards viable business models"

The sheer quantity and poor management of waste is both shocking and yet very much 'business as usual' to anyone visiting or working in Africa. With the exception of a very small number of African countries, waste and poor waste management are becoming serious problems and concerns. Urgent solutions are needed before the situation gets completely out of hand.

From an environmental perspective, this affects the quality of soil and soil-filtration ecosystem services, contaminating water supplies. It is also increasingly a public health issue. Indeed, due to the inappropriate disposal of solid wastes and the failure of lining systems, solid wastes generate chemicals and pollutants that reach soils, groundwater resources and the ambient air. Adverse impacts on public health include increased occurrences of cancers, birth defects and reproductive disorders, with a knock-on effect of increasing costs for the public health systems. Moreover, unmanaged waste dumps have become the 'place-du-jour' where women and children work, mostly informally and mainly in appalling conditions. These issues, combined with the impact of projected levels of population growth, make unmanaged waste a new plague threatening the African continent.

At the heart of successful waste management is the creation of programmes to transform citizens' behaviour. Waste is a problem, but if it is approached strategically, it can drive new business opportunities capable of incentivising private investment and management skills, turning it into a veritable gold mine of opportunity for the continent.

Women are pivotal in triggering the behavioural change necessary to shift towards viable business models. Indeed, in some African cities, such as Kampala (Uganda) women are already leading this turnaround. They have started to capitalise on urban waste by using kilns to transform banana waste into charcoal, and have created a new value chain by selling the charcoal to a company which produces easy-to-use briquettes. The same company supplies the women with briquettes on credit to sell in their kiosks for profits, which they keep.

There is potential to scale this successful female 'business story' into a model to be replicated in other municipalities across Africa. Several other small urban successes are currently being recorded. However, the great hope for a change in waste management on the continent is to scale up these pilot activities and reach better implementation by public authorities.

Only if well-designed policies and regulations are provided to support these efforts can the benefits be scaled up to both national and social advantage. Targeting capacity and training at public authorities will foster suitable policies involving governments, legislators, the private sector, NGOs and representatives from the local populations in the design and implementation of future African waste policies and strategies.

Jane Wilkinson



Case study

Nigeria: From an environmental catastrophe to a business opportunity



Country:	Nigeria
Type:	Middle-income country
GCCA Index:	0.54
Vulnerability (CRI Index):	80 th most vulnerable country
GCCA+ Project:	Nigeria Climate Change Response Programme-NCCRP



"In Nigeria, waste management consumes from 20–50 % of highly constrained municipal budgets"

"Three areas – Abuja in the centre of Nigeria, Kano in the north and Ogun in the south – have been identified by GCCA+ to build pilots"

Lagos, Nigeria's largest and one of the world's fastest growing cities is infamous for its unmanaged waste. Photographs of Lagos' uncollected waste are well known and widely criticised in the local press. Poor waste management is an environmental challenge across the country in both cities and rural areas, leading to what some call an inevitable environmental catastrophe.

Nigeria is the most populous nation in Africa with a population of around 201 million people (UN, 2019) of whom 44 % are under 15 (UN, 2016). While rapid population growth clearly implies a growing demand for food and water, increasing poor waste management has accelerated soil and water degradation, putting pressure on what safe or productive resources remain. Waste management consumes from 20–50 % of highly constrained municipal operational budgets. A 'vicious cycle' has evolved whereby municipal councils' costly but superficial solutions are out-scaled by rapidly growing industrial and domestic populations who continue to exacerbate the growing problem.

In 2017, the incoming national government opted to change gear. It realised that waste management is a severe problem and that a myriad of opportunities are available to develop solutions, including ad-hoc policies and strategies both at the national and federal level, involving all levels of the population. Climate change tools and solutions also have the capacity to estimate the impact of unmanaged waste on citizens' well-being.

The waste-management sector is particularly well geared to private-sector activity and, thanks to support from the GCCA+, solving Nigeria's waste-management problem is being seen through the lens of new business opportunities to invest in and to attract potential international investors. Furthermore, there is recognition that proper waste management generates significant collateral opportunities, such as using treated waste water and sludge for biogas, irrigation and aquaculture.

To tackle the waste-management situation, three areas (Abuja in the centre of Nigeria, Kano in the north and Ogun in the south) located in geographically and strategically distinct regions have been identified to build pilots. GCCA+ support is focused on supporting the Federal Ministry of Environment to frame the problem, establish precise baselines for greenhouse gas emissions, and develop enabling policies to catalyse new business opportunities to manage waste and generate emission reductions locally and nationally.

To achieve this outcome, GCCA+ training and socialisation programmes will support efforts by the ministry and the federal administration to work with civil society (through formal representation in policy formulation) and the local citizens (i.e. women and youth included) already operating in the sector. GCCA+ is also supporting efforts to measure, report on and verify progress to ensure that Nigeria can take full credit for its actions in the context of global climate change negotiations.

Monica Bonfanti

Case study

Liberia: the huge fight of a small country against poor waste management



Country:	Liberia
Type:	Least developed Country (LDC)
GCCA Index:	0.56
Vulnerability (CRI Index):	93 rd most vulnerable country
GCCA+ Project:	Global Climate Change Alliance+ for Liberia



"Nearly four years after the Ebola epidemic, solid-waste management is still a significant public health threat in Great Monrovia"

"Recycling, composting, energy production from waste, job creation and value added in waste have all been identified as viable options by the GCCA+ project"

Liberia, a sub-Saharan state on Africa's Atlantic coast, coped with repeated civil wars through the 1990s and early 2000s. Poor governance exacerbated by conflict had devastating impacts on the environment, and poor waste management became an increasing source of public health and environmental concerns. Liberia has enjoyed democratic government since 2005. However, efforts to build stronger governance and management systems to alleviate poverty and build prosperity suffered a major setback with the world's worst outbreak of Ebola in 2014–15. This also helped the issue of overcoming poor waste management to rocket to the top of public health priorities.

Nearly four years after the Ebola epidemic, solid-waste management remains a significant public health threat in Great Monrovia, especially during the rainy season when raw sewage triggers outbreaks of cholera and diarrhoea. The national Environment Protection Agency (EPA) has been building commitment among the municipalities responsible for managing waste. Although progress is evident, challenges such as the tripling of the urban population during the wars mean that critical infrastructure and sewage systems are embryonic, if in existence at all.

GCCA+ support to Liberia to improve waste management is part of a broader international support effort focusing on the national government. EPA efforts to measure and deal with solid waste include managing the development of priorities, strategies and business-oriented waste-

management pilot activities for the sector. Some of the focus of GCCA+ support has helped to define how funds secured within the EU-Liberia Climate Change Alliance could be used to deliver climate change mitigation through various solid-waste-management approaches. Recycling, composting, energy production from waste, job creation and value added in waste have all been identified as viable options.

The GCCA+ project is also supporting the establishment of a sectoral measurement, reporting and verification (MRV) system to measure the variety and impact of greenhouse gas emissions from the waste sector to support tailored solutions. During the project design phase, it became clear that the best technology would be unable to solve waste management unless upstream waste disposal was integrated into the waste-management life cycle. Eradicating 'anywhere anytime' waste disposal requires sustained behavioural change by governments, citizens and private actors based upon new understandings about the impact on their well-being of waste generation, disposal and management.

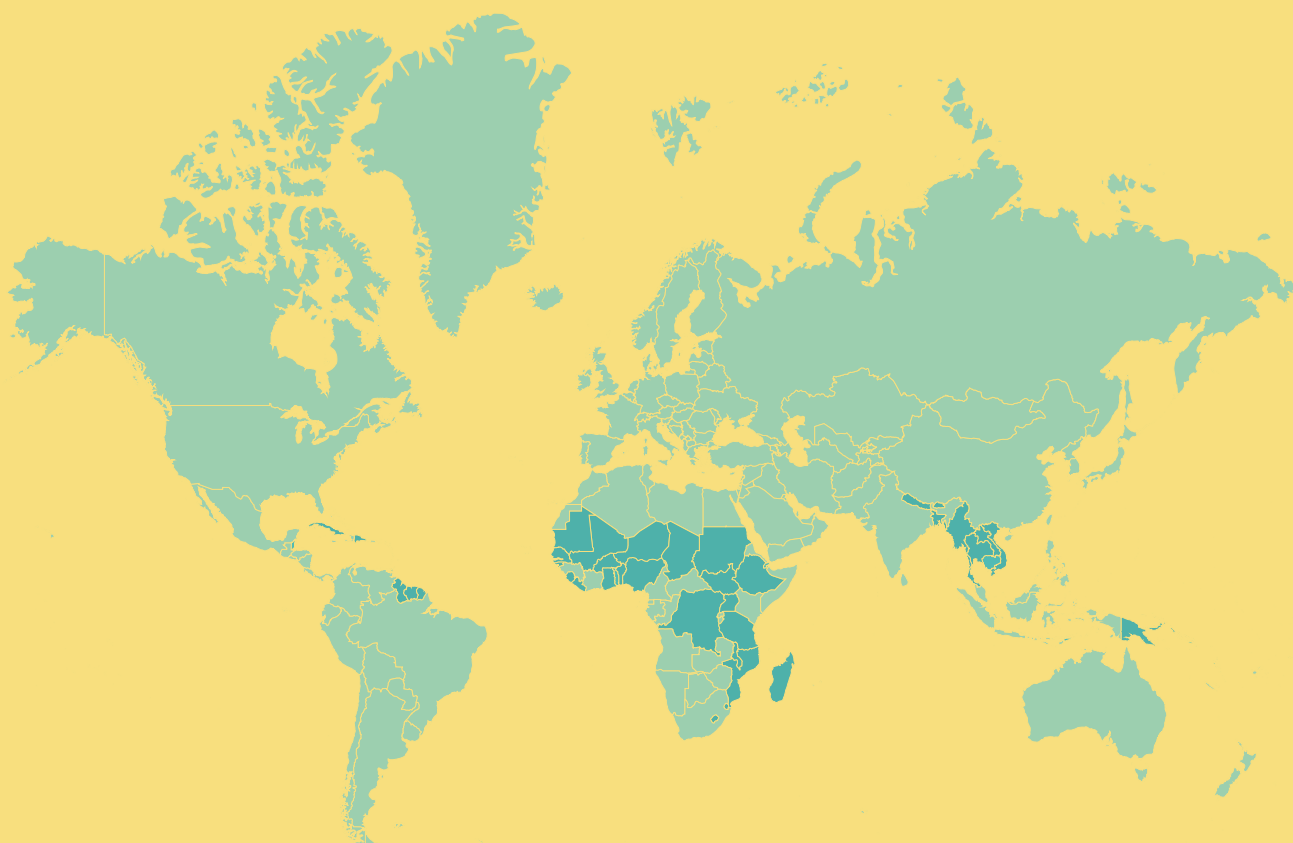
Developing education programmes to generate buy-in from all stakeholders, local communities and private citizens to generate less waste and dispose of it 'thoughtfully' will be an essential counterpoint to realising low-carbon solutions in the long term. Such a buy-in will deliver long-term public health benefits and climate change solutions.

Monica Bonfanti

THE GCCA+ BAROMETER

GCCA+ DIRECT EFFECT ON GHG EMISSION REDUCTION

MITIGATION AND ADAPTATION IN CLIMATE VULNERABLE COUNTRIES



Since 2017, the GCCA+ has officially added support to the implementation of Nationally Determined Contributions (NDC) to its scope of work and increased its work on mitigation, to encourage even the poorest to pursue development pathways that are clean, resource efficient, socially inclusive, and long-lasting.

GCCA+ DIRECT EFFECT ON GHG EMISSION REDUCTION

REHABILITATION OF VEGETATION (CARBON SINKS)

●	BANGLADESH	●	JAMAICA
●	BHUTAN	●	MALI
●	BURKINA FASO	●	MAURITANIA
●	CAPE VERDE	●	MOZAMBIQUE
●	DEMOCRATIC REPUBLIC OF THE CONGO	●	SENEGAL
●	ETHIOPIA	●	TANZANIA
●	THE GAMBIA	●	TIMOR-LESTE
●	GUINEA-BISSAU	●	TOGO
●	GUYANA	●	UGANDA

RENEWABLE ENERGY

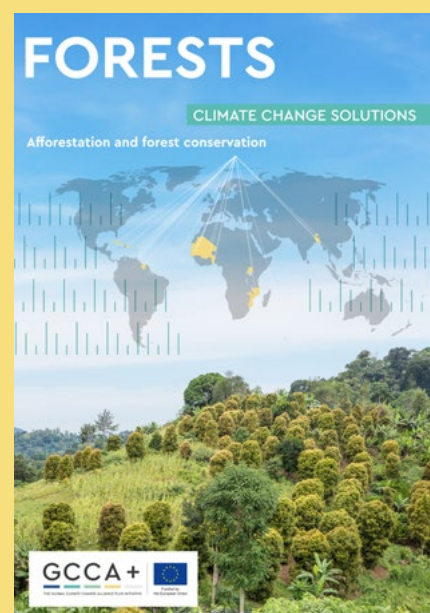
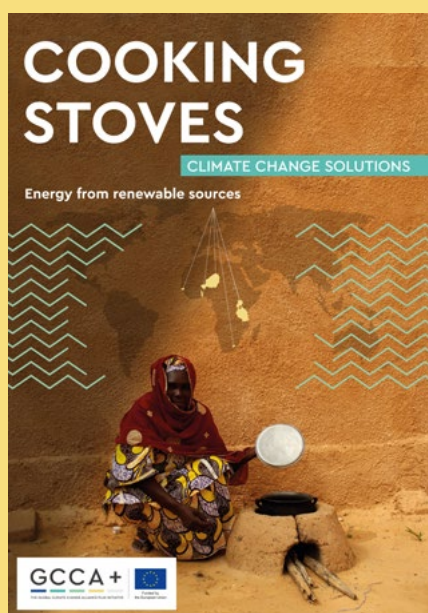
●	BANGLADESH	●	MALDIVES
●	CHAD	●	SIERRA LEONE
●	ETHIOPIA	●	TANZANIA
●	THE GAMBIA	●	TRINIDAD
●	GHANA	●	TOBAGO
●	LESOTHO	●	UGANDA
●	LIBERIA		

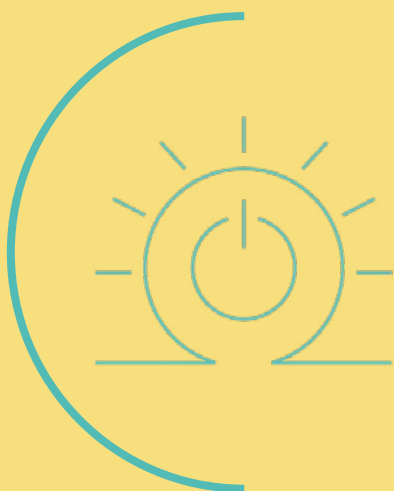
ENERGY EFFICIENCY

●	DJIBOUTI	●	MAURITIUS
●	DEMOCRATIC REPUBLIC OF THE CONGO	●	SIERRA LEONE
●	ETHIOPIA	●	TANZANIA
●	GUINEA-BISSAU	●	TOGO
●	LESOTHO	●	UGANDA
●	MALDIVES		

GCCA/GCCA+ MITIGATION-RELATED ACTIVITIES

Projects	ACTION	% of GCCA portfolio
 19	CREATION OF CARBON SINKS THROUGH REFORESTATION, AFFORESTATION, REHABILITATION OF VEGETATION	25 
 17	DIRECT SUPPORT TO NDC IMPLEMENTATION	22 
 13	REDUCING EMISSION-PRODUCING ENERGY FROM RENEWABLE SOURCES (SOLAR, BIOGAS, SOLID WASTE)	17 
 12	SETTING UP MONITORING AND EVALUATION AND MRV SYSTEMS FOR MITIGATION ACTION AND GREENHOUSE GAS (GHG) INVENTORIES	15 
 12	INSTITUTIONAL STRENGTHENING FOR IMPROVED NDC PERFORMANCE	15 
 10	REDUCING EMISSIONS BY INCREASING ENERGY EFFICIENCY (COOKING STOVES, CHARCOAL, ENERGY-EFFICIENT BUILDINGS)	13 
 11	SUPPORT FOR NATIONAL REDD/REDD+ (REDUCING EMISSIONS FROM DEFORESTATION AND FOREST DEGRADATION) PROGRAMMES	14 
 3	PARTICIPATION IN CLEAN DEVELOPMENT MECHANISM (CDM)	4 





The Best of Practice

What defines a successful mitigation intervention?

The notion that 'mitigation is a human intervention to reduce the sources or enhance the sinks of greenhouse gases' is simple enough. Far from simple, mitigation actions range across the full diversity of the six sectors (energy supply, transport, buildings, industry, agriculture and forestry, and waste management) covered by the IPCC WGIII Report.

Social, political, economic, geographical, demographic, environmental and technological factors all influence which mitigation actions will work. Trade-offs are often required. Moreover, every sector is composed of subsectors each with particularities of emissions to be reduced or sinks to be enhanced. There is no silver bullet, 'one size fits all' best practice in any sector. However, as the technical analysis and case studies in the repository illustrate, constantly evolving methodologies developed by the IPCC, adequate finance, and the prioritisation of robust data are a good place to start.

Elements of successful mitigation

1. **An underpinning robust methodological is key:** for decades now, significant work has been done by international coalitions, especially the IPCC, to refine methods to estimate baselines, calculate the global warming potential of known greenhouse gasses, build models

to project climate pathways, and develop methods track and verify reductions over time. These are also being updated constantly. In some respects, this is the easy part. Tailoring interventions to a particular context may be more difficult. Ideally, although robust, harmonised and cross-referenced data sets collected over time exist, in many, indeed most situations, they do not.

2. **Robust data-collection capacities, storage and processing systems** must be prioritised to ensure mitigation actions are being measured, tracked and verified. Financial and economic data help to assess if costs are on track, whether or not beneficiaries are benefiting, and if any adjustments are necessary to achieve greater impact.

3. **Actions need to be cost-effective.** This does not mean inexpensive but rather that the right kinds of incentives and policies are in place to ensure scarce public funds go the distance and that private actors, ranging from project developers and owners through to end-users and households, are being encouraged by smart policies, including financial incentives, to adjust their behaviours to choose more climate-resilient, low-carbon land-management options, food production systems, products

and appliances, modes of transport, energy suppliers, etc.

4. **Flexibility is sometimes necessary.** Another aspect of cost effectiveness means that sometimes it is important to recognise that low-cost emission reductions cannot be achieved in every case. In some markets, it is more effective to create mechanisms such as emission trading schemes and carbon markets to ensure more mitigation takes place where it is least expensive. Although somewhat partially successful, lessons from mechanisms created under the Kyoto Protocol need to be integrated into Article 6 outcomes under the Paris Agreement to ensure all countries can meet mitigation targets at the lowest possible cost.

"Social, political, economic, geographical, demographic, environmental and technological factors all influence which mitigation actions will work"

Monica Bonfanti

ABOUT GCCA+

The **Global Climate Change Alliance Plus (GCCA+)** is a flagship initiative of the European Union helping most vulnerable countries respond to climate change. It started in 2007 and has become one of the EU's major climate initiatives with a worldwide scope, with over 70 programmes in Africa, Asia, the Caribbean and Pacific region.

Join our community

<https://europa.eu/capacity4dev/gcca-community>

www.gcca.eu



GCCA+

THE GLOBAL CLIMATE CHANGE ALLIANCE PLUS INITIATIVE



Funded by
the European Union



NOVEMBER 2019

This publication exists only in electronic format. It has been prepared by the GCCA+ Support Facility. It does not represent the official view of the EC or the EU Institutions. The EC accepts no responsibility or liability whatsoever with regard to its content.