





# 2020

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### CONTENTS

- 4 FOREWORD: A year of change
- 6 HIGHLIGHTS OF 2020
- 14 RESEARCH

25

29

34

36

- 22 2020 AT A GLANCE
- 24 Climate planning and policy
  - Meeting and increasing national climate commitments and ambitions
- 26 Accelerating technology transfer
- 28 Climate transparency and accountability
  - Transparency in climate action
- Enhancing climate transparency in Latin America and the Caribbean

#### 34 Business models and markets

- Collaboration with the Danish Development Finance Institution
- Eswatini: From vision to impact through capacity-building
  - The Copenhagen Centre on Energy Efficiency
- Integration of energy efficiency strategies into national climate change policy and planning in China and Kenya
- C2E2 activities lead to energy efficiency investments in Argentina and India

#### 40 PARTNERSHIPS

## A YEAR OF CHANGE

2020 was a year of global upheaval and COVID-19 had a significant impact on our daily operations, and on our partners.

When the world went into lock down in March 2020 UNEP DTU Partnership was well positioned to continue operating and to deliver work in support of our country partners. While all travel was suspended we quickly, and effectively, switched to a purely on-line operation utilising systems and structures already in place.

In recent years, UNEP DTU Partnership has built up our online presence and capacity, hosting many online training events and webinars in order to increase our reach globally, and reduce our own carbon footprint. Switching to a fully online approach, we saw that most of our partners in developing countries were able to join us in a way that wouldn't have been possible less than 10 years ago.

For example, in 2020 UNEP DTU Partnership organised 35 webinars, with a total of 2,599 confirmed participants from 165 countries. 40.5% of all participants were women, which marks a significant increase from what we experience in many of our in-country events. Further, more than half of our panellists were women. Not only did we reach a more diverse group of stakeholders, we were also able to reach people for whom participating in inperson trainings or workshops were impossible due to distance or funding, building capacity in the areas where it is most needed.

This approach allows us to better tailor our services and deliver science-based advisory where and when it is needed. One example was the online training we offered to a range of stakeholders in Eswatini, where we supported the delivery of four project funding proposals for the Green Climate Fund (GCF), to help the country decarbonise the energy system and strengthen their climate resilience with the help of multilateral climate financing.

Last year's UNEP Emissions Gap Report, compiled and edited by UNEP DTU Partnership, found that the response to COVID-19 led to a brief dip in global carbon dioxide emissions. However, a return to business as usual would lead to a temperature rise in excess of 3°C this century – far beyond the Paris Agreement goals of limiting global warming to well below 2°C. The report offered important insights and opportunities into the importance of building back better, and creating a low-carbon postpandemic world.

In terms of new projects and research, UNEP DTU Partnership ended 2020 on a positive note, securing new funding, including from the European Commission's prestigious and highly competitive H2020 programme, and the Danida Development Research programme. Two additional 5-year projects were also confirmed in late 2020, funded by the German International Climate Initiative (IKI), one led by the United Nations Economic Commission for Europe (UNECE) on improving the energy efficiency of the global building supply chain industry and another on UNFCCC Article 6 cooperative approaches for high ambition in the implementation of Nationally Determined Contributions (NDCs).

As always, our world-leading experts and our close collaboration with the Technical University of Denmark (DTU) enables us to provide analytical insights and robust technical assistance to our partner countries, from Government Ministries, through to city authorities and local Small and Medium sized Enterprises. 2020 also witnessed a growth in UNEP DTU Partnership's research outputs, creating new knowledge and sharing it in scientific journals and outlets. Going forward, UNEP DTU Partnership will build on its existing commitment to accelerate public and private investment in the implementation of NDCs, and to help raise climate ambitions in our partner countries. Our portfolio of project work with Governments and stakeholders in our partner countries positions us well to help countries unlock private capital investment to finance the transition to low-carbon and climate resilient economies and at a scale and pace needed to close the global emissions and adaptation gaps.

This work is aligned with both the overall UNEP strategy and DTU's vision to develop and apply the natural and technical sciences for the benefit of society. Finally, 2020 marked the 30th anniversary of the organisation we now call UNEP DTU Partnership, set up by John Christensen in 1990. John has been a visionary, successful and much loved Director admired by his staff and partners across the world, building up a leading research-based partner that now employs over 80 staff. It is my honour to take over the job of leading UNEP DTU Partnership from John.

Sincerely,

Susanne Pedersen Director

UNEP DTU Partnership



## HIGHLIGHTS OF 2020

#### GLOBAL SUPPORT PROGRAMME LAUNCH: TRAINING MORE THAN 250 PEOPLE IN 2020

Through the Global Support Programme, UNEP DTU Partnership works to strengthen countries' technical and institutional capacities to prepare quality National Communications and Biennial Update Reports to be submitted to the UNFCCC, and to help establish national systems and frameworks for documenting procedures and processes.

Launched in the Asian region in the second half of 2020, the Global Support Programme has trained more than 250 people through online events.

This was done through the creation of two networks: the South Asia (SA) Network and the South East Asia (SEA) Network.

"Collaboration with the UNEP DTU Partnership has shown that it is possible to have coordination among institutions providing capacity-building support for climate transparency, and that this can be an effective approach to accelerate our actions towards meeting the goals of the Paris Agreement. We are very much looking forward to furthering our collaboration."

Yasuo Takahashi, Executive Director, Institute for Global Environmental Strategies

## LAUNCH OF ICAT ASSESSMENT GUIDES AND CASE STUDIES

Seven pilot case studies to determine how to apply Initiative for Climate Action Transparency (ICAT) methodologies and guides were published in December 2020. ICAT provides a set of practical methodologies and tools to increase climate action transparency and reporting.

Four of the case studies showcase the ICAT Transformational Change Methodology, two demonstrate how the ICAT Sustainable Development Methodology has been applied, and one shows how the ICAT Stakeholder Participation Methodology can be applied.

Drawing on pilot case studies, a series of capacity-building modules have been developed to demonstrate how ICAT methodologies and guides can be used in an interactive, flexible way.

"The ICAT and ICAD collaboration in piloting the ICAT Stakeholder Participation Guide was key in helping government and key stakeholders understand the importance of diverse groups participating in the design, implementation and assessment of Malawi's National Climate Change Policy.

The guide effectively informed policy-makers of the need to incorporate diverse and vulnerable groups, and built knowledge on how to strengthen climate policy and action at different levels."

*Gift Richard Maloya, Founder and Director of the Initiative for Climate Action and Development (ICAD, Malawi)* 



#### **UNEP GAP REPORTS**

IN 2020, UNEP DTU Partnership once again coordinated the two UNEP flagship reports, the Emissions Gap Report and the Adaptation Gap report. Both reports present the latest scientific data, with the Emissions Gap Report focusing on the gap in mitigation between current policies and the goals of the Paris Agreement, and the Adaptation Gap Report on the lack of adaptation action necessary to avoid the worst consequences of climate change.

While the 2020 Adaptation Gap Report was set to be published in early 2021, the 2020 Emissions Gap Report was published in December 2020 and resulted in 2344 articles in 1470 outlets covering 97 countries and 28 languages.

## HIGHLIGHTS OF 2020



#### **CONTRIBUTION TO NATURE**

Based on ten years of coordinating the UNEP Emissions Gap Report, experts from the UNEP DTU Partnership co-authored a comment in the journal Nature in March 2020.

Under the headline Emissions: world has four times the work or one-third of the time, the article highlighted the fact that the emissions gap is now four times larger than it was ten years ago and stressed the urgent need for governments, the private sector and communities to switch into crisis mode, increase their ambitions, and focus on early and aggressive climate action.

Despite this bleak outlook, the article also highlighted several success stories, with concrete actions that can be scaled up and replicated.



#### THE 3 PERCENT CLUB

As a member since its inception during the UN Secretary-General's Climate Action Summit in 2019, UNEP DTU Partnership has been part of the efforts of the Three Percent Club to enlarge its partnership and step up efforts to improve energy efficiency in 2020.

Sixteen participating countries and 61 partner organizations, companies and programmes are now committed to supporting global progress towards achieving a three percent rate of improvement in energy efficiency.

In the wake of the COVID-19 pandemic, governments around the world are spending trillions of dollars on recovery packages, which provides opportunities to support energy efficiency whilst investing in jobs, the economy and better recovery.

#### **CLIMATE ACTION ENHANCEMENT PACKAGE**

UNEP DTU partnership has provided technical assistance to Chile, Panama and Morocco under the Climate Action Enhancement Package (CAEP) launched in 2020. CAEP aims to deliver targeted, fast-track support to increase the ambitions and implementation of NDCs.

In Chile, UNEP DTU Partnership is developing methods to allocate sectoral carbon budgets at the national and sectoral levels. These budgets will be crucial in monitoring Chile's progress towards the goal of achieving carbon neutrality by 2050.

In Panama, UNEP DTU Partnership is providing technical support for low-carbon long-term planning and project scenarios for energy, waste and industrial processes and product use. In Morocco, the partnership is enhancing the local capacity to produce better cost analyses of NDC updates.

## HIGHLIGHTS OF 2020

#### NEW PARTNERSHIP ON ENERGY EFFICIENCY IN MOZAMBIQUE

A new partnership with the state-owned Electricidade de Moçambique (EDM) provides assistance in the training, design and implementation of energy efficiency programmes throughout the country. The collaboration involves both capacity-building and the development of concrete business models for the financing of projects.

The Copenhagen Centre on Energy Efficiency carried out a pre-feasibility study on LED technology for public lighting and delivered a course on energy efficiency in the building sector for the EDM and state officials in Mozambique.

"The support from UNEP DTU Partnership's technical and administrative staff was outstanding. Your effort contributed substantially to all the participants, making them aware of the best international practices, and the effectiveness of the learning was enhanced by the professionalism displayed by the staff."

Alberto Banze, Transmission Director, EDM

#### MRV FOR DISTRICT ENERGY: FROM CITY TO COUNTRY LEVEL

As part of our work in the District Energy in Cities Initiative, the Copenhagen Centre on Energy Efficiency is developing a protocol for monitoring the reporting and verification (MRV) of greenhouse gas emissions in district energy systems on the city and municipality scale.

The protocol allows cities to measure and report emissions data in conformity with IPCC Guidelines for National Greenhouse Gas Inventories and city data to be aggregated to improve the data quality of national inventories.

Use of the protocol will also allow city-level mitigation actions to be measured and innovative transboundary and cross-sectorial strategies to support climate action planning to be identified.

The protocol was introduced to our partner cities in 2020, several having already integrated it into city-level policies. In 2021, the protocol will be implemented in five pilot cities in Chile, India, Malaysia and Morocco.



#### **ESCO PERSPECTIVES**

In 2020, the Copenhagen Centre on Energy Efficiency published two major outputs to accelerate greater energy efficiency in support of global climate goals:

- An edition of the UNEP DTU Partnership's 'Perspectives' series, focusing on how technical expertise and investment can scale-up ESCO's energy-efficiency actions. The need to mainstream energy efficiency and ESCOs in NDCs was a main conclusion.
- A 'Sourcebook' provided a guide on Project Bundling as an efficient means for municipalities to scaleup investment in energy efficiency by grouping together several low-scale projects, thus achieving economies of scale.

#### NDC TRACKING IN MEXICO

UNEP DTU Partnership has collaborated with the Danish Energy Agency to design tools to improve NDC tracking of subnational energy-related actions in Mexico.

Enhancing the transparency of mitigation results and building trust and mutual confidence with local stakeholders, the tools link the efforts of subnational entities to undertake national climate reporting.

UNEP DTU Partnership provided technical support to Mexico's National Institute of Environment and Climate Change to develop a methodology and deployed the Greenhouse gas Abatement Cost Model (GACMO) to two Climate Change Plans in two Mexican states to assess the effect of subnational policies on emissions.

#### NDC TRACKING AND REPORTING IN GHANA

With implementation of the ICAT project in Ghana, a structure of sectoral champions was established that enabled the continuity of work and discussion on the implementation of the NDC. These sectoral champions played a part not only in implementing programmes for the NDC, but also in their tracking, monitoring and communication.

In a parallel process, UNEP DTU Partnership introduced the Greenhouse Gas Abatement Cost Model (GACMO) and trained national capacities in its use to allow Ghana to perform calculations for greenhouse gas mitigation options. For example, the GACMO was used to calculate emissions in the second Biennial Update Report.



#### **KIGALI COOLING ASSESSMENT**

Proving the case for energy efficiency and climate-friendly cooling, UNEP DTU Partnership coordinated the 2020 UNEP and IEA Kigali Cooling Assessment.

Supporting the Kigali Amendment to the Montreal Protocol, whose signatories have agreed to reduce the use of refrigerant gasses, the report shows that energy-efficient, climate-friendly cooling can avoid as much as 460 billion tonnes of greenhouse gas emissions – roughly equal to eight years of global emissions at 2018 levels – over the next four decades.

The report recommends actions such as international cooperation, national cooling action plans, minimum energy performance standards, energy efficiency labelling, promotion of building codes, phasing out of obsolete and inefficient cooling technologies, and sustainable cold chains.

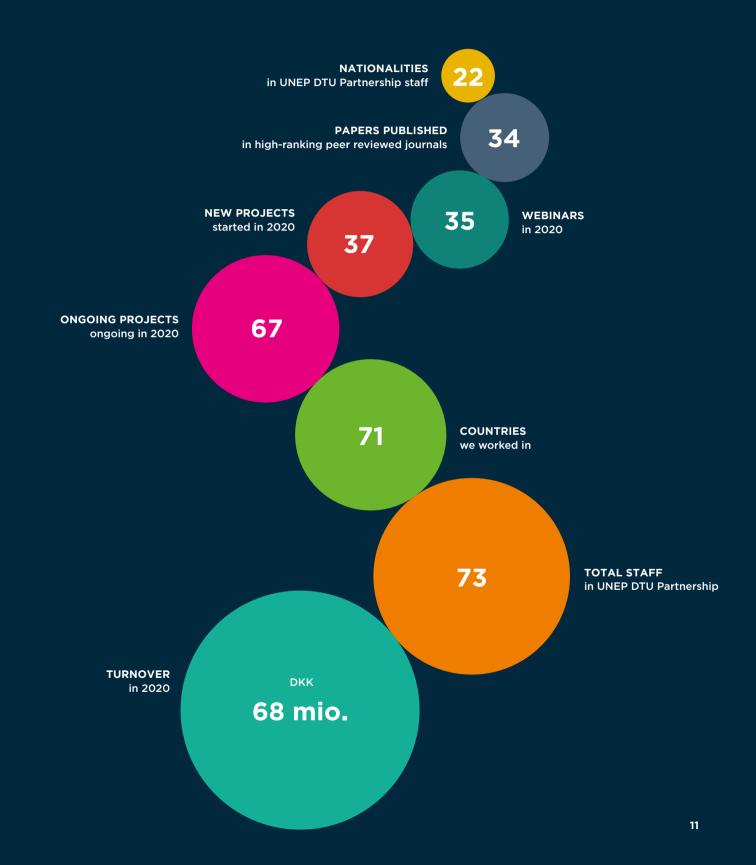
#### SUSTAINABLE ENERGY IN MUNICIPAL BUILDINGS

Adding to our existing work on energy efficiency in Latin American municipalities, 2020 saw the launch of a new project focused on municipal buildings. By generating knowledge and public information and improving the capacities of local government, the project will strengthen cooperation and enhance the scalability and replicability of energy efficiency.

The project will make local municipalities capable of analysing the energy performance of public buildings and evaluate the impact of proposed energy efficiency measures. The project is funded by the French Development Agency - AFD in the framework of the Programme EUROCLIMA+.



## 2020 IN NUMBERS



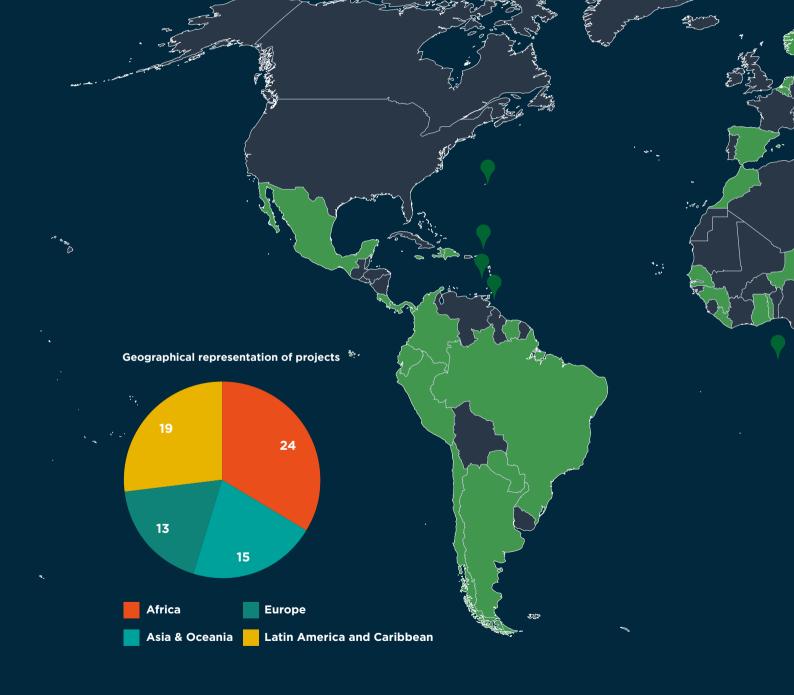
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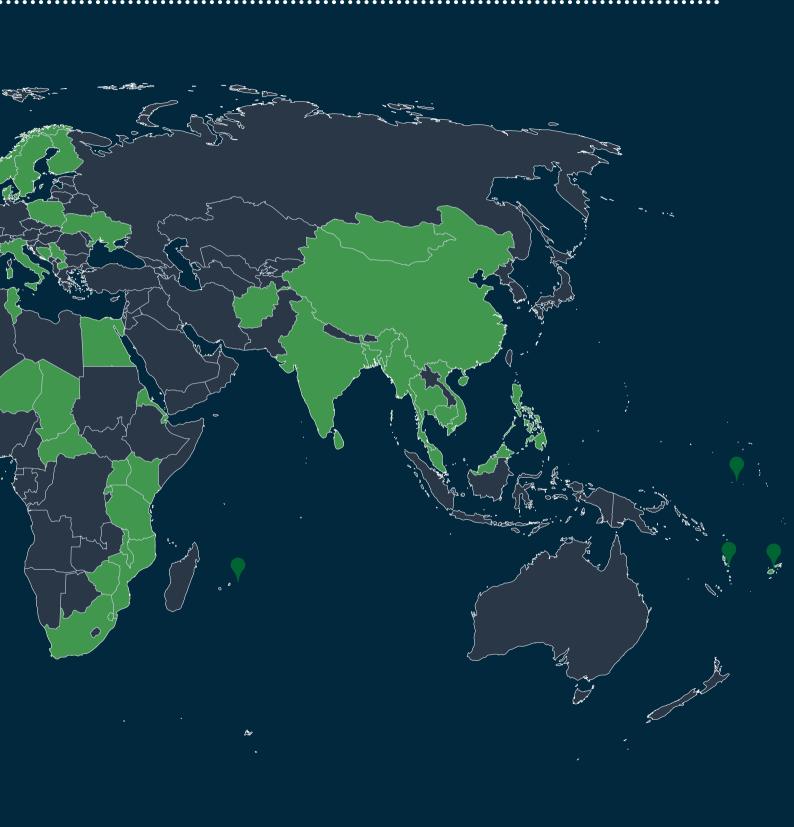
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## WHERE WE WORK

In 2020 UDP was working in 71 countries around the world.





The UNEP DTU Partnership is a leading research institution within the fields of climate change and sustainability transitions in developing countries. Throughout 2019 the partnership worked to support the achievement of SDGs 7 and 13, and enhance developing countries' access to scientifically based solutions.



Research is central to UNEP DTU Partnership. As an integral part of The Technical University of Denmark (DTU), and through the university's large network of international partners and contacts, UNEP DTU Partnership draws on a wide range of scientific expertise and collaborates with other world-leading research institutions.

We work strategically to convert research and data into practical solutions and approaches, focusing on scalability and replication in order to give the Partnership's research the widest possible impact. At the same time we use our on-the-ground work to create new knowledge and data to inform decision-making on climate action and development.

Both our research and our project implementation are aligned with the Partnership's vision of a climate-resilient world where low-carbon energy sources are used in the most efficient way, thus delivering a range of SDG co-benefits.



Research at UNEP DTU Partnership is multidisciplinary and cuts across a number of themes of central importance to climate action in the context of sustainable development:

#### **GLOBAL CLIMATE POLICY**

In 2020, we continued our engagement in the annual United in Science report, produced under the direction of the United Nations Secretary-General to bring together the latest climate-science updates from key global partner organizations.

In addition, UNEP DTU Partnership experts coordinated, edited and co-authored UNEP's Emissions Gap Report 2020 and its Adaptation Gap Report 2020. Both are flagship UNEP reports that provide a periodic global assessment of progress made in achieving the Paris Agreement's goals and climate change adaptation. Furthermore, with 2020 being UNEP's Super Year for Nature, the Adaptation Gap Report also provides a thematic focus on the potential of nature-based solutions to reduce and manage increasing climate risks.

#### **CIRCULAR ECONOMY**

The development of value chains, consumption patterns, waste management systems and business models that are aligned with the principles of a circular economy are central strategies for combating climate change while reducing poverty and sustaining economic growth.

Contributing to this important agenda and drawing on past research and partnerships in both Europe and the global South, UNEP DTU Partnership initiated new research projects in 2020 to study and advance the circular economy in the food and energy sectors. Specifically:

- On the global scale, UNEP DTU Partnership is working with UNEP to undertake a global study of food loss and food waste, focusing on consumers and how digital technologies may be harnessed to stimulate behavioural change.
- In Kenya, UNEP DTU Partnership is leading a new interdisciplinary research project on the valorisation of side streams in the country's growing dairy industry. VALORISE will study innovation processes, value chains, material flows, milk quality and regulations, as well as develop circular business models and future scenarios for the industry. The project is a collaborative effort between DTU, Kenyan research organisations, Arla Foods and the East African Dairy Association, and involves close dialogue with the Danish-Kenyan strategic sector cooperation under DANIDA.
- Also in Kenya, UNEP DTU Partnership is leading a new research project with the aim of identifying suitable schemes for the collection and recycling of electronic waste from off-grid solar devices, thus creating economic value for local communities. This includes research on how the growing volumes of electronic waste from small PV devices are disposed of and how leading suppliers of the devices are currently engaged in waste collection and recycling, as well as various other scenarios under different policy conditions.

#### LOCAL DEVELOPMENT EFFECTS OF TECHNOLOGICAL CHANGE IN KEY ECONOMIC SECTORS

In recent years, UNEP DTU Partnership has conducted research to find ways to strengthen the conditions whereby domestic companies can capture a larger share of the market for climate technologies, thus ensuring that the green transition also contributes to sustainable

### Within this research theme UNEP DTU Partnership:

- Finalized a research project in South Africa analysing the local industrial and socioeconomic development co-benefits of the Renewable Energy Independent Power Producers Procurement Programme (REIPPPP), a competitive auction scheme that ran from 2011 to 2018. The project was carried out in partnership with the Danish Institute for International Studies, two South African universities and wind-industry associations in Denmark.
- Completed research on business development within solar PV value chains in sub-Saharan Africa through various projects focused on upgrading strategies for PV assembly plants in Kenya, South Africa and Senegal and investigating the captive PV market in Kenya. This strand of research also looked at the business strategies local firms adopted in their efforts to become more competitive in the solar PV market.
- Investigated the market for small-scale irrigation technologies in Kenya and Ghana, specifically analysing the strategies and capabilities of irrigation technology suppliers and their role in developing the small-scale irrigation market. Related research focused on improving the understanding of ICT innovation processes in the agricultural sector.
- Drew analytical insights from the Geography of Nordic Sustainability Transitions (GONST) project at DTU (2017-2021) to investigate where the green economy is growing and why some regions forge ahead in terms of transition processes while others lag behind.

#### JUST TRANSITIONS AND DIMENSIONS OF SOCIAL EQUITY AND INCLUSION

This new research theme at UNEP DTU Partnership focuses on how the green transition can become more socially balanced. Key themes are how workers in fossil-fuel industries can be integrated into new greensector jobs, the social acceptance of new technologies, local engagement, democratically owned businesses, and the inclusion and exclusion of local citizens.

#### Within this crosscutting theme, UNEP DTU Partnership is engaged in various research projects analysing:

- The role of collective action in developing sustainable energy. This research aims to fill the knowledge and participatory gaps surrounding the transition to low-carbon energy systems to ensure that citizens are at the centre of the transformation and to empower their creative potential.
- The importance of socially balanced energy transitions at the macro-level. Through a comparative study of Ghana and Kenya, we focus on how social, economic and political interests are shaping energy policy in African countries.
- Governance issues related to community involvement, community ownership and community development in South Africa. Specifically this research, completed in 2020, focused on how wind-project developers, communities and local governments interact in decision-making in order to understand the implications of their interaction for the inclusive governance of sustainable energy transitions.

#### **SELECTED APPLICATION AREAS**

As mentioned above, research at UNEP DTU Partnership cuts across a number of application areas and sectors, and this year we highlight research within three areas of application that have been explored from various perspectives:

#### **DIGITAL ECONOMY**

Digital technologies such as artificial intelligence, the Internet of Things, cloud-computing, digital payment systems and blockchain can all play a central role in enhancing sustainable development and achieving a net-zero economy.

In 2020, UNEP DTU Partnership increased its research activities within the digital economy

from various perspectives. From an energyefficiency perspective, the focus has been on energy-efficient data centres, multi-impact assessments of data-centre value chains, lowcarbon gaming and green AI. Furthermore, UNEP DTU Partnership is engaged in research into applications of blockchain technologies for green finance, energy efficiency interventions and how to sustain market mechanisms in accordance with the Paris Agreement.

Finally, UNEP DTU Partnership has received funding to participate in a consortium along with eleven other European universities in order to conduct a four-year research project focused on the transformation towards fully digitalized energy systems and the required enabling policy frameworks, incentive and regulatory mechanisms.



#### **CLIMATE CHANGE AND HEALTH**

In 2020, UNEP DTU Partnership helped deepen knowledge about the links between climate change and health in various climateaggravated health hazards, including air pollution, Saharan dust intrusions, biomass combustion, heat waves and COVID-19. This body of new evidence revealed the complexity of the interactions between the climatic, environmental and societal factors, as well as the need for integrated approaches to climatechange adaptation and public health measures.

Research outputs focused on the health effects of heat in a changing climate and their prevention through adaptation in the public health sector and on the possible aggravation of heat impacts on health during the COVID-19 pandemic. The research proposed comprehensive revisions of public health plans in order to protect vulnerable groups while complying with lockdowns, social distancing and other public health responses to the pandemic. Finally, the research explored the adaptive capacity of public health and revealed shared challenges and the need for collaborative action.

#### **DISTRICT ENERGY**

In 2020, UNEP DTU Partnership's research informed the design and application of technical, economic and environmental analytical tools and methodologies for rapid assessment and the prefeasibility of district energy projects in four pilot countries. UNEP DTU Partnership is also developing a virtual knowledge centre, which will communicate research outcomes and accommodate cuttingedge knowledge on district energy and sustainable urban cooling, with support from the Danish Energy Agency, the DES Initiative and Cool Coalition.

In 2020, UNEP DTU Partnership participated in international academic research collaborations on district energy systems with organizations in Italy, China, India and Chile, and supported the development of ISO standards with the China National Institute of Standards, urban cooling planning guidelines with the Polytechnic University of Milan, and national guidelines for phasing out refrigerants with the India Institute of Technology in Delhi.



#### **RESEARCH OUTPUTS IN 2020**

In 2020 researchers at UNEP DTU Partnership co-authored 34 journal papers in peer-reviewed academic journals indexed in the Web of Science (WoS), marking a 30% increase on 2019 outputs. Publications include papers in highlevel journals such as Nature, Research Policy, the Journal of Cleaner Production, Science of the Total Environment, Environmental Research and Energy Research and Social Science.

Besides its WoS-indexed journal papers, UNEP DTU Partnership provided analytical input into and/or published 63 reports, book chapters, working papers and policy briefs. Among these were the two flagship reports, the Adaptation and Emissions Gap Reports. Another highlight in 2020 was the edited book entitled Energy Efficiency in Developing Countries: Policies and Programmes, published by Routledge, of which eleven of the nineteen chapters were co-authored by current or former UNEP DTU Partnership researchers.

#### SUPERVISION OF PHD AND MASTER'S STUDENTS

UNEP DTU Partnership researchers supervised six internal PhD students and co-supervised two from other divisions within the wider DTU Department of Technology, Management and Economics. One PhD researcher defended his thesis on the challenges that national governments face when implementing key provisions in the Paris Agreement. UNEP DTU Partnership researchers also supervised and co-supervised 10 DTU Master's students.

#### ENGAGING WITH RESEARCH, THINKING LOCALLY AND ACTING GLOBALLY

Located in Denmark, UNEP DTU Partnership is able to draw on the advanced experience, research and expertise of Nordic and other European countries in the fields of renewable energy, energyefficient solutions, sustainable agriculture and district energy. This includes taking advantage of DTU's extensive research and expertise, as well as its links and partnerships with other leading research institutions and with industry.

By participating in cross-regional collaboration on climate challenges, UNEP DTU Partnership is responding to political objectives locally, regionally, nationally and globally. Through research into the processes of technology transfer, replication and scalability, the Partnership is playing an active role in ensuring that the Nordic countries' experiences of and research on climate-change mitigation and adaptation are shared with developing country partners in the pursuit of global goals.





## 2020 AT A GLANCE



The UNEP DTU Partnership has almost thirty years of experience in assisting developing countries reach their energy, climate and sustainable development goals.

Our experts work in three strategy areas of action on key aspects of the implementation of the Paris Agreement and towards the achievement of the Sustainable Development Goals.



The UNEP DTU Partnership align the climate and SDG agendas and stimulate action by stakeholders at the global, regional and country levels to maximize co-benefits.

By working within the framework of the SDGs, we assist developing countries in tackling the climate emergency in ways that benefit everyone.

While our work emphasises SDGs 7 and 13 on access to affordable clean energy and climate action, it covers fourteen of the seventeen SDGs.





## CLIMATE PLANNING AND POLICY

UNEP DTU Partnership supports around 65 developing countries in their efforts to design, analyse and integrate climate-change mitigation and adaptation activities into their national development plans and policies.

Our goal is for countries to implement sound climate actions as an integral part of their national development and as a result accelerate climate action and submit more ambitious and higher quality NDCs every five years. To reach this goal, we are helping to build stronger national frameworks for NDC planning and implementation through technical assistance, decision-making support, capacity building and the development of tailored guidance and tools.

Globally, and in close partnership with UNEP, we also deliver the annual UNEP flagship reports, the Emissions Gap Report and Adaptation Gap Report, which assess progress and identify gaps in relation to both mitigation and adaptation actions and long-term goals.

"The (Emissions) Gap Report shows us that the tragedy of COVID-19 has at least provided an opening if recovery packages are organized to be truly green and sustainable. We can go a long way to closing the gap. This is a huge opportunity ... As COP26 Presidency, we will use the findings from this report, and we will also use the upcoming Adaptation Gap Report to continue to champion the need for the highest possible ambition that the word has to offer across all pillars of the Paris Agreement."

Archie Young, Lead Climate Negotiator for COP26, United Kingdom of Great Britain and Northern Ireland



#### MEETING AND INCREASING NATIONAL CLIMATE COMMITMENTS AND AMBITIONS

UNEP DTU Partnership works to support countries' abilities to plan their short- and medium-term responses to climate change through the NDC process.

Throughout 2020, many countries were in the process of updating their NDCs. Even with the delays caused by the COVID-19 pandemic, the support of UNEP DTU Partnership in this area yielded results in countries around the world.

#### NDC INTEGRATION

A focus on NDCs and on helping countries achieve and increase their mitigation and adaptation contributions under the Paris Agreement has become increasingly integrated into UNEP DTU Partnership's work.

UNEP DTU Partnership's work on transfer and diffusion of green technology or capacity building for financing, and the success of innovative business models in including the private sector and allowing the public sector to leverage financing, helps countries achieve the goals in their NDCs. In the same vein, the partnership's work on enhanced transparency not only helps mandatory reporting on NDCs but also builds trust in climate action and targets, thus increasing ambitions.



#### THE NDC ACTION PROJECT

The NDC Action Project supports ten countries in translating their NDCs into concrete strategies and actions ready for financing and implementation, and in increasing their climate ambitions.

In 2020, this joint UNEP and UNEP DTU Partnership project started rolling out tailored technical assistance to make NDC implementation more efficient. The project also started actively engaging with the private sector and local financial institutions to develop investment plans.

#### NDC ACTION IN COSTA RICA

A case in point is the collaboration with Costa Rica. Working directly with the Directorate of Climate Change in the Ministry of Environment and Energy in Costa Rica, the UNEP DTU Partnership NDC Action Project further engaged the private sector in the contents of the NDC.

UNEP DTU Partnership identified privatesector representatives, analysed and commented on the draft NDC, facilitated input from local technical specialists, and supported the government in the dissemination of information regarding the NDC process and the preparation of NDC drafts.

The updated NDC was submitted to the UNFCCC on 29 December 2020.NDC integration



#### ACCELERATING TECHNOLOGY TRANSFER

UNEP DTU Partnership works to spur the uptake and diffusion of the mitigation and adaptation technologies needed to develop and implement sound climate actions as an integral part of national development planning and policies.

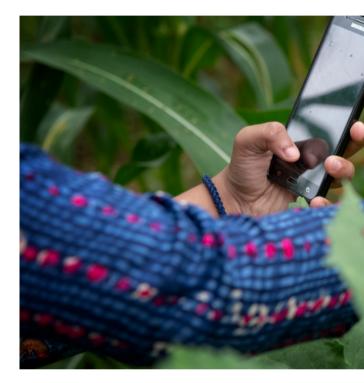
Focusing on both the transfer of climate technology based on national needs, the formulation of concrete plans ready for financing and implementation and research and more analytical work, UNEP DTU Partnership has adopted a broad approach to supporting the green transition. For example, in 2020 the partnership analysed value chains and how local companies can benefit from the implementation of climate technology.

#### LINKING TNAS WITH NDCS

A major part of the work on technology is done through Technology Needs Assessments (TNAs). In 2020, seventeen countries started their TNAs as part of the fourth round of the global TNA project implemented by UNEP DTU Partnership. This brings the total number of countries in the project to almost a hundred.

While starting up the fourth round in 2020, UNEP DTU Partnership has worked towards a more holistic approach, integrating NDCs more into the TNA process. As of now, twenty of twenty two countries from the ongoing third round of the TNA project have directly linked their TNAs and TAPs with their NDCs.





The information that TNAs provide about the potential, ability and scale of climate change technologies plays a unique role in the formulation and implementation of NDCs. Actions identified in the Technology Action Plans highlight what needs to be done to activate robust market systems and the enabling conditions for technology transfer, diffusion and uptake. These actions can in turn strengthen longer-term strategies elaborated in NDCs, as well as potentially increase ambitions by making the means of implementation more concrete.



"For Uganda, the TNA is providing a participatory and empirical process that negates the challenge of which technologies could be the most responsive to her NDC and at the same time meet her climate mitigation and adaptation needs. As the TNA process in Uganda is now drawing to a close, it has reached its climax with the empowerment of us, the partners, with the capacity to prepare a Technology Action Plan. The journey we took right from the identification of priority sectors and technologies for climate resilience and low-carbon development has underscored the productive nature of the partnership."

Dr Maxwell Otim Onapa, Director Science, Research and Innovation, Ministry of Science, Technology and Innovation of Uganda and National Designated Entity for the UNFCCC Technology Mechanism

#### **ELECTRIC MOBILITY**

Electric mobility is another area in which UNEP DTU Partnership works to facilitate the uptake of green technology.

Through the Horizon 2020 SOLUTIONS+ project, UNEP DTU Partnership has assessed the impacts of demonstration projects for electric vehicles (EVs) in cities in Africa and Asia, including preparing pre-feasibility reports for scaled-up projects.

Ministries in Ghana and Zimbabwe have received support in preparing EV policy frameworks and road maps for EV transformation, including for public transportation. In Macedonia, UNEP DTU Partnership has helped to develop a policy and a financial de-risking road map for their enhanced NDC, including procedures and instruments to promote electric mobility.

UNEP DTU Partnership is also a member of the World Bank/ESMAP working group on the reuse and recyclability of Li-ion batteries for storage applications, which will ensure that the EV transformation also supports a cleaner electric grid.





## CLIMATE TRANSPARENCY AND ACCOUNTABILITY

UNEP DTU Partnership is a leading international institution on guidance development and capacity-building activities related to Transparency under the Paris Agreement. At the time of the Paris COP, UNEP DTU Partnership was already one of founding institutions of the Initiative for Climate Action Transparency (ICAT), and it is similarly a key partner with UNEP in the GEF Capacity Building Initiative for Transparency (CBIT) both globally and nationally.

We work through these initiatives with forty countries to help strengthen the capacity of national institutions to assess the impacts of their climate change actions. This provides the basis for their engagement with the Enhanced Transparency Framework of the Paris Agreement as a way to build trust and foster shared understanding, greater accountability and the strengthening of ambitions.

Our goal is to support the establishment of national systems of transparency to facilitate

data-handling, the documentation of results and the impacts of NDCs and other national climate actions. This will facilitate countries in reporting to the UNFCCC on the implementation of their NDCs in accordance with the rules and transparency requirements of the Paris Agreement.

Globally we also provide the tools and methodologies to implement and support tracking systems that increase the availability and quality of data and knowledge-sharing platforms for countries to interact with other countries in accessing the latest knowledge about their respective actions.

Additionally in 2020, UNEP DTU Partnership was engaged by UNEP to support the final year of the Global Support Programme, which was aimed at facilitating submissions of National Communications and Biennial Update Reviews and linking them to the new reporting requirements under the Paris Agreement.



ICAT is implemented by the UNEP DTU Partnership and other international partners like ISPRA, WRI and VERRA.

#### TRANSPARENCY IN CLIMATE ACTION

Through the Initiative for Climate Action Transparency (ICAT), UNEP DTU Partnership is playing a part in responding to the critical need to support improved transparency and capacity-building under the Paris Agreement. By strengthening the capacity to assess climate action impacts and build mutual confidence, this work also directly affects countries' efforts to update and report on their NDCs, as well as meeting them.

As one of the few global initiatives that looks at transparency in climate adaptation, the ICAT Adaptation project, led by the UNEP DTU Partnership, provides a framework for tracking progress toward the implementation of national adaptation plans, NDCs and other provisions under the Paris Agreement and the SDGs.

Below is a short description of some of the results achieved through ICAT in 2020:

### Enhancing national transparency systems in Mozambique

In Mozambique, UNEP DTU Partnership worked with a wide range of stakeholders to lay the foundations for an enhanced national MRV system, including:

- Understanding the barriers and limitations of the current system, coupled with a road map to overcome them
- An in-depth analysis of the expected impacts of selected climate policies, planned in the country's NDC
- Capacity-building to establish systems for monitoring and reporting on climate action

#### Sector-level MRV in Sri Lanka

With the support of UNEP DTU Partnership, Sri Lanka has developed its first sector-level MRV system in the transport sector, as well as its first quantitative-based NDC revision, including:

- Data collection, defining indicators, and monitoring and verification, which can be scaled up for other sectors.
- Improved capacity of national stakeholders to implement MRV systems to track NDCs and climate actions.
- Revision of NDCs, new NDCs introduced and endorsed after analysis using the GACMO model.

"Supporting countries to enhance transparency is a major part of the foundation in the drive to achieve global climate and development goals. Through ICAT, UNEP DTU Partnership has contributed with collaborative hard work to help countries improve their transparency frameworks and build capacity. Their experts have both created results on the ground and helped to develop a set of practical methodologies and tools."

Henning Wuester, Director of ICAT

#### **CLIMATE TRANSPARENCY AND ACCOUNTABILITY**



#### In 2020, UNEP DTU Partnership enhanced its capacities for monitoring and evaluating adaptation actions in five pilot countries:

- **South Africa:** implementation of a national flood-risk early-warning system
- **Bangladesh:** analysing how development actions are contributing to adaptation
- **Kenya:** implementation of the national climate-smart agricultural strategy
- India: developing indicators to assess innovative agricultural solutions
- **Dominican Republic:** supporting an M+E system to assess adaptation in the agriculture and tourism sectors.

#### A broad process in the Dominican Republic

UNEP DTU Partnership supported the broadest process ever organized for establishing a national MRV system, leading to the approval of a full National MRV/Transparency System. This included:

• An analysis of institutional and legal frameworks as well as a roadmap to improve existing processes

- Presenting an MRV system for the collection and compilation of data and the preparation of international reports and NDCs
- Developing a proposal for a Decree establishing the system with the support of national lawyers. The Decree was approved in October 2020

#### **Measuring impacts in Costa Rica**

UNEP DTU Partnership works towards MRV of the sustainable development and transformational change impacts of climate policies and actions by:

- Developing operational guidance for sustainable development and transformational change methodologies
- Exploring the use of transformational change as an additionality criteria for carbon markets
- Testing ICAT guidance and methodology in pilot sectors
- Building capacity with key stakeholders to apply the ICAT sustainable development and transformational change methodologies

"UNEP DTU Partnership has assisted Costa Rica through the ICAT project by providing expert advice for the development of impact-assessment methodologies to help us strengthen our National Climate Change Metrics System. The support from UNEP DTU Partnership has allowed us to make significant progress towards assessing and monitoring the sustainable development and transformational change impacts of Costa Rica's climate policies and actions in our pursuit of a zero-carbon economy, an economy that also delivers on development and creates a fair society in harmony with nature."

Andrea Meza, Minister of Environment and Energy of Costa Rica





CLIMATE TRANSPARENCY AND ACCOUNTABILITY

#### ENHANCING CLIMATE TRANSPARENCY IN LATIN AMERICA AND THE CARIBBEAN

Under the project umbrella of the Capacity-Building Initiative for Transparency (CBIT), UNEP DTU Partnership has advanced projects in eleven countries throughout the LAC region. The overall objective of the broad engagement across the CBIT portfolio in the LAC region is to support countries in addressing transparency priorities by strengthening the preparation of CBIT projects to be presented to the Global Environment Facility. This is done in close collaboration with the 'Means of Implementation' team in UNEP's regional office.

In 2020, implementation of CBIT projects started in several countries, with UNEP DTU Partnership providing expert advice on improving the quality-assurance and qualitycontrol mechanisms of the GHG Inventory and Projections processes. This specific technical task is an important piece of the puzzle in improving transparency systems and preparing for the Enhanced Transparency Framework of the Paris Agreement.

UNEP DTU Partnership supported Paraguay, Trinidad and Tobago and the Bahamas in developing the first Project Identification Forms and getting them approved. In Paraguay and Trinidad and Tobago, the partnership was also recruited to support the development of the full project proposal. During the year, UNEP DTU Partnership's support was instrumental in achieving the approval of CBIT projects in Panama, Honduras and Dominican Republic, where implementation will begin in 2021.

In addition, UNEP DTU Partnership is playing important roles in the implementation of CBIT projects in Chile, Costa Rica, Argentina, Peru, and Antigua and Barbuda.

In 2021, UNEP DTU Partnership will continue its support to countries to develop indicators and systems to track the implementation of NDCs, the central building block of the Paris Agreement.

"In the UNEP Office for Latin American and the Caribbean we have worked closely with the UNEP DTU Partnership across the climate transparency portfolio in the region. The UNEP DTU Partnership has not only assisted countries throughout the region in developing their CBIT projects, but also provided top-notch expertise on transparency systems, such as processes for quality-assurance and quality-control mechanisms of GHG inventories. These specific technical tasks are important puzzle pieces to improve the transparency systems, prepare for the Enhanced Transparency Framework of the Paris Agreement, and increase climate transparency and ambition. Our collaboration has been an example of how decentralization of UNEP DTU support though embedding teams in regions can increase impact and produce results."

Gustavo Máñez Gomis, Climate Change Coordinator, Latin America and Caribbean Office, UN Environment Programme



## BUSINESS MODELS AND MARKETS

UNEP DTU Partnership supports national and sub-national governments in developing countries and emerging economies to accelerate the implementation of climate action through market mechanisms.

Our goal is to help establish well-functioning markets and business models that promote the dissemination and uptake of clean and climate-resilient technologies and practices, based on local innovation and production wherever possible.

To reach that goal, we support actors on all levels by improving access to knowledge and building the capacity to enable climate action through market development and innovative business models with an increased focus on high-impact areas and private-sector engagement.

At the global level, we develop guidance based on examples of best practice and facilitate partnerships between public and private entities, focusing on the most amenable sectors and well-proven and innovative business models for the rapid implementation of sustainable energy and climate action solutions.

#### **USD 1100 mio**

Climate related investments identified and mobilized by the Business Models and Markets strategic area working with our global partners in 2020.

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#### COLLABORATION WITH THE DANISH DEVELOPMENT FINANCE INSTITUTION

Throughout 2020, UNEP DTU Partnership continued its collaboration with the Danish Development Finance Institution (IFU). This work follows the IFU board's approval of its Climate Policy, a policy drafted with support from UNEP DTU Partnership in 2019.

As part of this collaboration, UNEP DTU Partnership calculates the  $CO_2$  emissions of all new investment opportunities, informing the IFU board of them before approval. In doing so we engage with IFU staff who are handling projects in developing countries in order to strengthen the climate change analytics of  $CO_2$  impacts of investment opportunities. This work allows continuous learning and methodological development, inspired and aligned with international best practice on carbon accounting.

In 2020, UNEP DTU Partnership also started work on IFU's first annual portfolio on CO2 footprint accounting, a major new effort to be published annually. At the same time, UNEP DTU Partnership is developing a tool for upstream assessment of the physical climate risks of IFU investments, advising on the need for climate adaptation measures in project design.

Understanding the impact of climate change on investments and the need for resilient investments is a relatively new area that UNEP DTU Partnership is working on with IFU in order to push it to the forefront of the agenda for international development funds.

## 2999

In summary, our collaboration with IFU is contributing to the implementation of the Paris Agreement by "making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development", as mentioned in the second paragraph of the agreement.

#### ESWATINI: FROM VISION TO IMPACT THROUGH CAPACITY-BUILDING

UNEP DTU Partnership has completed a capacitybuilding exercise for a wide range of stakeholders in Eswatini, focusing on four project ideas identified in the newly drafted Eswatini Green Climate Fund (GCF) country programme.

This portfolio of projects aims to increase the share of renewable energy technologies, making Eswatini less dependent on imported fossil fuels, and piloting the integration of different types of infrastructure and physical planning in the capital Mbabane to build resilience against storms and flash floods. Due to the COVID-19 pandemic, physical training was moved online in 2020 but kept as an intensive and full-time event, combining plenaries and group work. The training enabled groups to articulate the climate rationale of the projects, internalize the GCF requirements and investment criteria in the design, and fully comprehend the various financial instruments and principles.

UNEP DTU Partnership experts provided followup mentoring over several months, culminating in an event where the groups pitched their ideas for GCF Accredited Entities, such as UNDP and UNEP. At least three of the four ideas have been picked up and will move forward for application, making it likely that they will receive climate finance from the GCF. An anonymous evaluation showed that 99% of the local participants rated the training as either good or very good.

Similar training will be conducted in Sudan in 2021 with the support of the Climate Technology Centre & Network, while the training modules and menu of presentations can be drawn upon in a variety of other contexts.

"The training has been fundamental in ensuring that we have the capacity to implement our climate action priorities. To link what we intend to do with how to do it. UNEP DTU Partnership facilitated that our stakeholders took ideas and made them into fundable concepts. We now have a better understanding of how to design projects, which will make it easier to attract funding, not only through the GCF. This is going to help us a lot, especially for the implementation and investment plan of our NDC."

Khetsiwe Khumalo, Climate Change Programme Coordinator, Ministry of Tourism and Environmental Affairs, Eswatini

#### **BUSINESS MODELS AND MARKETS**





#### THE COPENHAGEN CENTRE ON ENERGY EFFICIENCY

Established in September 2013, UNEP DTU Partnership's Copenhagen Centre on Energy Efficiency (C2E2) is dedicated to accelerating the uptake of energy efficiency policies and actions on a global scale.

The Copenhagen Centre on Energy Efficiency is the global thematic hub for energy efficiency for the United Nations Secretary General's Sustainable Energy for All (SEforALL) initiative.

It has the prime responsibility of supporting action towards the SEforALL energyefficiency target of doubling the global rate of improvement in energy efficiency by 2030.

As an energy-efficiency hub, the Copenhagen Centre on Energy Efficiency works to engage national and subnational governments to accelerate the implementation of energy efficiency. With a focus on the most rolloutready energy end-use sectors, namely buildings, district heating and cooling, lighting and data centres, the Copenhagen Centre on Energy Efficiency is assisting with project and technology procurement and investment models, best-practice knowledge, and research in developing countries throughout the world.

Using a model of standardization, upscaling and replication, the Centre creates impacts reaching far beyond individual projects.

The year 2020 was a year of delivery for the Centre, as concrete national and local projects were implemented on the ground, from new energy efficiency policies in Kenya to training frameworks in selected Latin America, Africa and Asian countries to new investments materializing locally around the globe.

On the global level, the Copenhagen Centre on Energy Efficiency increased our impacts through the SEforALL initiative, as well as UNEP's District Energy in Cities Initiative. The Centre also remains a committed member of the Cool Coalition and Three Percent Club, which was founded during the 2019 UN Secretary General's Climate Summit.



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#### **BUSINESS MODELS AND MARKETS**





#### ENERGY-EFFICIENCY STRATEGIES IN NATIONAL CLIMATE-CHANGE POLICY AND PLANNING IN CHINA AND KENYA

Through C2E2, UNEP DTU Partnership has worked with international and local partners to integrate policies to incentivize investments in district energy in China's upcoming 14th Five Year Plan.

Specifically, this work made several evidencebased recommendations, including greater use of biomass in off-grid villages with stand-alone or small-size district heating systems. This recommendation was officially presented to the Chinese Congress, in collaboration with Qinghua University.

The second recommendation, which was adopted, was for the piloting of integrated clean district heating and energy mapping and planning for the city of Xi'an. Through a clean district-heating action plan, the municipality of Xi'an will integrate geothermal into a pilot district-heating technology in their upcoming Five Year Plan.

Finally, C2E2 contributed to the publication of recommendations on clean district heating for the 14th Five Year Plan at the city level through the Sino-Denmark Collaboration (SDC), as part of a strategic partnership with the Danish Energy Agency (DEA). Key partners in our work on district energy in China are the District Energy in Cities Initiative, in collaboration with the Bitten and Mads Clausen Foundation and the DEA.

In a parallel project completed in 2020, C2E2 supported the Kenyan Ministry of Energy (MoE) in developing the country's first National Energy Efficiency and Conservation Strategy (NEECS) for 2021-2025. Support was provided in the form of data collection, preparing the initial draft, reviewing the intermediate drafts and producing the final Strategy. The NEECS specifies the country's targets and main actions for energy efficiency in the next five years and is endorsed by key government agencies and stakeholders.

The Strategy was launched in September 2020, with UNEP and World Bank officials attending the virtual launch event. The World Bank has announced plans to cover some of the Strategy's activities in its next batch of loans to Kenya. C2E2 and the World Bank are now supporting the Kenyan MoE's efforts to develop an implementation plan for the NEECS.

"We are very pleased with the results of this first collective purchase of LED lights through the RAMCC trust fund. We bet on this innovative proposal, and the results have been fantastic; savings in the price of lights, greater efficiency and transparency in administrative processes. Reductions in GHG emissions encourage us to continue working to achieve carbon neutrality by 2050."

Carlos Briner, Mayor of the Municipality of Bellville



"RAMCC has been working for over ten years on climate action in Argentinian local governments, and now it is time for implementation. For this, we need to support municipalities to develop innovative financial mechanisms. The RAMCC Trust Fund is a clear example of this. It is the first global trust fund for climate action managed by local governments that provides municipalities with the financial backing and transparency needed. Thanks to support by the Copenhagen Centre on Energy Efficiency for developing this bundling business model, and conducting pre-feasibility studies, we were able to run the first collective purchase of LED lights through the RAMCC trust fund, showing concrete results in Argentina."

Ricardo Bertolino, Executive Director RAMCC



Based on pre-feasibility studies and city-wide assessments developed in recent years, C2E2 have helped deliver impacts on the ground in India, with several demonstration projects for district cooling moving to the procurement stage.

We have worked with various city authorities in India, including the Rajkot smart-city project, where a district cooling system, as part of the smart energy system, has been integrated into master planning with a total investment of 50 million USD. This project received financing from the national smart-city fund, and the main network was put out to tender in early 2020.

A further two district cooling projects moved to procurement following technical assistance from C2E2 in the city of Thane, with a total investment of 24 million USD. The city of Hyderabad also joined our district cooling collaboration, and Pharmacity project, with a total investment of over 60 million USD, is moving to Detailed Project Reporting with a preliminary engineering design and business model development. In Argentina, C2E2 worked with a group of small and medium-size cities to design a collective financing model to overcome the challenge of accessing finance for retrofitting street lighting with energy-efficient technologies. The municipalities are part of the Argentinean Network of Municipalities Against Climate Change (RAMCC), a UNEP DTU Partnership partner-organization.

In November 2020, the first modern LED streetlights were delivered, following financial contributions from nine municipalities, which established an extraordinary fund of US\$ 121,000 to purchase modern and efficient LED lights. Some of the cities included in this group, such as Centeno, Rauch, Arequito and Villa Eloísa, are small, with just 3,000 to 15,000 inhabitants. Working in collaboration with other towns enabled such municipalities to access economies of scale and reduce technology prices.

Following the success of this project, further rounds of bulk procurement are being prepared, not only for LED lighting, but also for other sustainable energy technologies. Furthermore, other urban municipalities in Argentina are embracing this business model, indicating the possibility of successful replication and upscaling throughout the country and beyond.

## PARTNERSHIP

### **ACTION THROUGH PARTNERSHIPS**



Since its inception in 1990, UNEP DTU Partnership has always worked with other partners to achieve impact. Indeed, partnerships are central to the UNEP DTU Partnership business model, though the nature and scale of these partnerships has evolved over the past thirty years, along with real-world needs and changes.

Inspired by the guidance and targets of SDG 17, we are working in partnership to support national plans to achieve climate action targets. In doing so, we follow a demand-driven approach to our partnerships, where UNEP DTU Partnership adds value to country-owned processes through the provision of technical assistance and research-based advisory services. Despite the disruptions caused by the COVID-19 pandemic, in 2020 various new partnerships were formed aimed at leveraging the networks or operational influence of likeminded organizations with shared objectives. These partnerships range from municipalities, governments and research centres to the private sector.

The driving force of new partnerships at UNEP DTU Partnership is our work in support of greater energy efficiency, led by the Copenhagen Centre on Energy Efficiency.



#### **MAIN PARTNERS**

- Developing country governments
- Sub-national and city authorities
- Private sector

#### INTERMEDIARY PARTNERS

 UN Environment
UNFCCC, UNDP, UNOPS, The World Bank, Bilaterals

#### IMPLEMENTATION PARTNERS

- National institutions and regional centres
- International technical partners

## PARTNERSHIP

#### NEW PARTNERSHIPS IN 2020

UNEP DTU Partnership is teaming up with **The Energy and Research Institute** (TERI) to identify and strengthen collaboration on energy efficiency in India, including the development of local vocational skills focused on industries, buildings and the transportation sector. This will involve the delivery of performance assessment studies, webinars and expert talks, as well as the co-production of case-study analyses, toolkits, discussion papers and joint research proposals.

## Through its leadership of the **Global ESCO Network partnership with EVO**,

the Efficiency Valuation Organization, UNEP DTU Partnership is working to reinforce the services of the Network and ensure improved outreach. Launching a website followed by a campaign in December 2020, 23 ESCO Associations have partnered with the Network, which consists of a total of 39 national and regional ESCO Associations.

#### The Sustainable Development Initiative

is a new partnership between UNEP DTU Partnership and the Gold Standard Foundation, working in collaboration with the European Roundtable for Climate and Sustainable Transition and the Wuppertal Institute. Through stakeholder consultations and the delivery of technical work, research and analysis, the initiative will present options for guidance, rules, modalities and procedures to operationalize the sustainable development provisions of Article 6.

Starting in January 2020, UNEP DTU Partnership is working with the **Urban Electric Mobility Initiative** (UEMI) through participation in the SOLUTIONSplus project. UEMI is a joint initiative of the SOLUTIONSplus partners and UN-Habitat. It builds on international activities in the areas of sustainable urban development, energy and mobility, and focuses on the equal access provision of basic urban services in Latin America, Asia and Africa. Our contributions to the SOLUTIONSplus partnership are in the areas of electric mobility, mitigation analysis and impact assessments.

In 2020, UNEP DTU Partnership signed a Memorandum of Understanding with the state-owned **Electricidade de Mozambique** (EDM) for the provision of training and support to the design and implementation of energy-efficiency programmes. This partnership works 'hands on' with national staff employed by EDM and includes support to the design and implementation of projects such as pre-feasibility and feasibility studies, social and environmental impact assessments, and the development of business models in the direction of actual implementation and financing.

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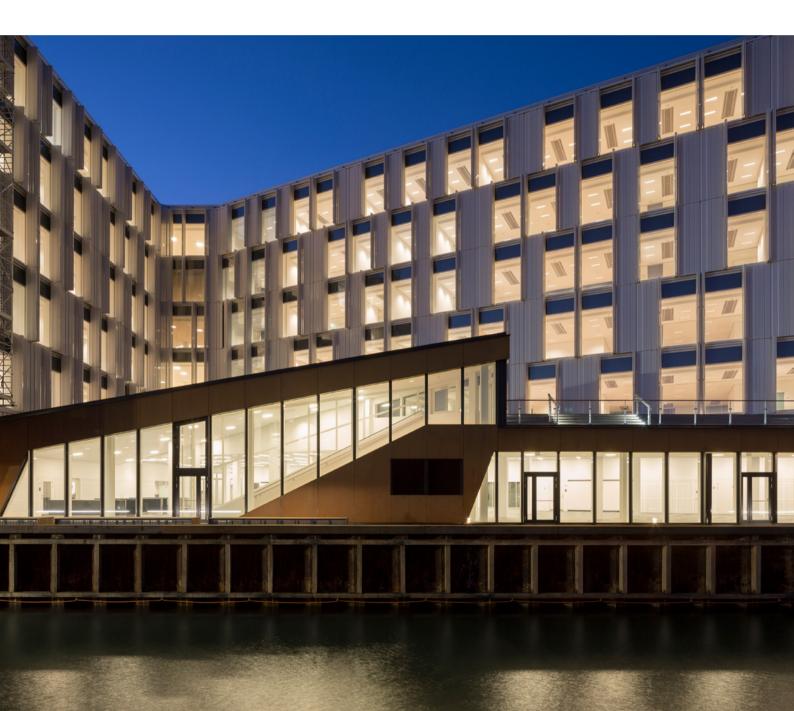
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