The Frankfurt School-UNEP Collaborating Centre for Climate & Sustainable Energy Finance (the Centre) is committed to facilitating essential structural changes in energy supply and use around the globe by helping to catalyse private sector capital flows towards investments in sustainable energy and climate change adaptation and mitigation. By treating all activities from research through to project implementation as a continuum, the Centre is building a knowledge base that directly benefits its partners and the wider community. The Centre’s combination of advisory work with applied research and capacity building is a perfect platform for identifying and propagating good practices in sustainable energy and climate finance. Through partnerships with various financial institutions, the Centre develops and field-tests new financial instruments, products and services that serve the growing demand for energy efficiency and clean energy production. The Centre’s primary objective is to implement UN Environment’s concept of a green economy by channelling capital towards sustainable energy and climate finance and bridging the public-private gap. Thanks to a strong focus on raising awareness, the Centre is becoming a leading think-and-do-tank on sustainable energy and climate adaptation.

The price of renewables – especially solar power – continues to tumble. The result is more green power capacity for less money and a defining trend we see in our Global Trends Report 2017, published in April (see page 3). The Paris agreement in theory should result in continued and perhaps accelerated growth in climate finance. Parties to the agreement have accepted inter alia to define targets to put themselves on track to a low carbon world, to adjust the targets every 5 years and to report on the transformational change towards the long-term goal of zero net emissions globally in the second half of the century.

A rather new instrument aimed at facilitating this transformational change that has received attention over the recent years is “results-based finance” for mitigation and adaptation purposes. The Centre recently launched the report “Results-based climate finance in practice: delivering climate finance for low-carbon” jointly with the World Bank Group on May 22nd at the Innovate for Finance (I4C) event in Barcelona. Based on a review of 74 programs selected, this report discusses the potential role of Results-Based Climate Financing (RBCF) in supporting governments’ efforts to reach the objectives of the Paris Agreement. RBCF is a financing modality under which funds are disbursed by an investor or donor to a recipient upon the achievement of a pre-agreed set of climate mitigation or adaptation results. The report suggests that using RBCF components can especially facilitate carbon pricing and market building. The report documents the significance of RBCF in terms of supporting the transparent attainment of Sustainable Development Goals, the Paris Agreement, and NDC goals.

This is of course only one example of the Centre’s continuous work and commitment to streamline climate finance processes while facilitating public-private sector common understanding. In this regard I am very happy to announce that the Centre team recently received a strong addition with Karsten Löffler, who joined Silvie Kreibiehl as our new Co-Head on May 1st 2017. Mr. Löffler combines the insurance and institutional investors’ perspective with a deep understanding of the global political agenda and the role of the public sector, thereby adding exceptional expertise to the Centre’s profile.

In this month’s newsletter we also report on a number of other exciting developments and climate finance endeavours that our team is currently involved in, for example our brand new E-learning course “Certified Expert in Climate Adaptation Finance” (page 2), new publications e.g. on adaptation and renewable energy trends (pages 3 and 4), or the Centre’s support within the GCF readiness programme (page 5.) Enjoy reading!
E-LEARNING: FINANCING A CHANGING WORLD

With the Paris Agreement in force since November 2016, the world is now officially on its way toward a sustainable future. The realisation of the Paris Agreement goals requires more than consensus though, it requires a significant increase in funding – with new instruments and approaches to mobilise a broad range of investors and to achieve scalability in financing climate action.

Our changing world requires professionals well acquainted with the key features of financing the global energy transition, but we also need experts in climate adaptation finance; severe climate impacts already affect a large part of the global population, especially in developing regions, through extreme weather events like droughts, floods and extreme seasonal changes.

To enable the necessary capacity development among climate finance professionals for the new needs for renewable energy and climate adaptation finance, the Centre has extended its training portfolio with two comprehensive E-learning courses:

- “Certified Expert in Climate & Renewable Energy Finance” (CECRF)
- “Certified Expert in Climate Adaptation Finance” (CECAF)

The certification courses start twice a year, beginning in March and in September. For more information and to register, please visit: [http://www.frankfurt-school.de/home/international-advisory-services/fsdf-e-campus.html](http://www.frankfurt-school.de/home/international-advisory-services/fsdf-e-campus.html)

THE 8TH EDITION OF THE CLIMATE & SUSTAINABLE ENERGY FINANCE SUMMER ACADEMY TO BE HELD IN FRANKFURT

Whilst coping with rather hot temperatures prevailing in Germany, preparations for the 2017 Climate and Sustainable Energy Finance Summer Academy & Executive Training are in full swing, leading one step closer to Germany’s eagerly anticipated summer months. After last year’s success, the Centre will again offer two concurrently running training programmes, which will take place on July 10th -14th, 2017 in Frankfurt am Main.

The Climate and Sustainable Energy Finance Summer Academy is now in its eighth year and the perfect opportunity for “greenhorns” interested in green finance. Sessions will cover core coursework on the linkages between public and private sector finance, the impact of recent international climate negotiations and policies and sources of financing to scale up and unlock climate finance.

These are combined with technical courses covering an introduction to RE project finance and financial modelling. After the successful launch in 2016 and positive feedback received, the Centre will offer a second Executive Training in addition to the well-established Summer Academy. It targets experienced practitioners with prior financial knowledge. It aims to equip participants with a deep understanding of the investment decision-making process and innovative transaction structures for finance.

In addition to sessions on RE project finance and financial modelling delivered by the Centre’s senior staff, industry insiders will join every day to openly discuss recent trends and innovative concepts, such as Small and Medium Enterprise (SME) finance, green bonds, yieldcos, utility business models, and the role of retail investors. Due to their high level of experience, the trainers and guest speakers will serve as ideal sparring partners to facilitate a deeper exchange, debate and understanding of these innovative concepts.
GTR 2017: RECORD NEW RENEWABLE POWER CAPACITY ADDED AT LOWER COST

The 11th edition of the Global Trends in Renewable Energy Investment report was published on April 6th, 2017 by UN Environment, the Centre, and Bloomberg New Energy Finance. It finds that the world added record levels of renewable energy capacity in 2016 as cost of clean technology continues to fall. Wind, solar and other renewables added 138.5 gigawatts to global power capacity in 2016, up 9 per cent from 2015. The overall investment level, however, was 23 per cent lower than the previous year, with investments in renewables totalling $241.6 billion (excluding large hydro).

Investment in renewables capacity was roughly double that in fossil fuel generation; the corresponding new capacity from renewables was equivalent to 55 per cent of all new power, the highest to date. The proportion of electricity coming from renewables excluding large hydro rose from 10.3 per cent to 11.3 per cent. This prevented the emission of an estimated 1.7 gigatonnes of carbon dioxide. The total investment of $241.6 billion (excluding large hydro) was the lowest since 2013, the report finds. This was in large part a result of falling costs: the average dollar capital expenditure per megawatt for solar photovoltaics and wind dropped by over 10 per cent. "Ever-cheaper clean tech provides a real opportunity for investors to get more for less," said Erik Solheim, Executive Director of UN Environment.

While much of the decrease in financing was due to reduced technology costs, the report also documented a slowdown in China, Japan and some emerging markets. Renewable energy investment in developing countries fell 30 per cent (from 2015) to $117 billion, while in developed economies dropped 14 per cent to $125 billion. "It's a whole new world: even though investment is down, annual installations are still up; instead of having to subsidise renewables, now authorities may have to subsidise natural gas plants to help them provide grid reliability”, said Michael Liebreich, Chairman of the Advisory Board at BNEF.

CENTRE PRESENTS RESEARCH PAPERS ON ADAPTATION PROJECTS AND ASSOCIATED FINANCE

The CTI Private Finance Advisory Network (CTI PFAN) works with project developers offering coaching and business model structuring, with the aim of presenting bankable adaptation projects to financial investors, thus bridging the gap between investors and adaptation-related business opportunities. In the framework of the CTI PFAN Africa Climate Change Project Stream funded by IDRC, the Centre conducted empirical analyses on the investment requirements and risk characteristics of adaptation-related projects.

The research is structured into three areas capturing different but complementary aspects of adaptation projects. The first part focuses on the fundamentals and categorisation of adaptation projects conducted by private actors, in particular Micro, Small and Medium Enterprises (MSMEs). The second part focuses on the relation of climate risks and adaptation, analysing how adaptation projects might reduce or mitigate climate impacts as well as how uncertainties concerning climate change affect adaptation projects. The third part introduces two distinct perspectives on adaptation: adaptation planning by public actors, and adaptation projects implemented by private actors. We attempt to reconcile these perspectives by providing recommendations for public actors to overcome market imperfections and facilitate private (adaptation) investment.
DID YOU KNOW?
This Study finds that substantial investment in adaptation and resilience is already occurring in the private sector, financed by private capital. This investment is being undertaken by private enterprises of varying scales in response to the shifting market conditions driven by climate change. Understanding how this investment occurs, and subsequently the barriers which may prevent such activities, is an important step to understanding how public intervention can reduce or eliminate the barriers to catalyse private investments in adaptation.

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DID YOU KNOW?
Founded in 1999, the EurObserv’ER, led by Observ’ER (Observatoire des énergies renouvelables), has monitored and analysed the development of renewable energies in the European Union. Next to a yearly overview barometer – called “The State of renewable energies in Europe” – the EurObserv’ER team produces bimonthly reports (the so-called thematic barometers) that track and analyse the development of eight renewable energy technologies in the EU Member States. Since its creation, EurObersv’ER has published and successfully disseminated more than 115 thematic barometers and 15 overview barometers.

The distinctive feature of the EurObserv’ER barometers is the up-to-date, comprehensive database: through cooperation with a wide network of national experts, the figures published in the barometers are usually more up-to-date than the data of public statistical offices.


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DEMystifying Climate Adaptation Finance for the Private Sector
Achieving a binding and universal agreement on a targeted limitation of temperature increase to below two degrees in Paris was a historic result. COP 22 Marrakesh was eagerly anticipated to be ‘the COP of action’, setting out actions to achieve the priorities of The Paris Agreement.

At the COP side event “Demystifying Private Adaptation Finance & Action - breaking it down to planning and decision-making” held together with UNEP FI, the Demystifying Adaptation Finance for the Private Sector Study was officially launched.

The Study examines the private actor perspective on implementing adaptation activities and the spectrum of private finance instruments used to do so. It then explores the underlying market imperfections which may lead to an “unjustified” reduction of the attractiveness of adaptation investments, and the consequence for risk and/or return of the corresponding investment.

Professor Moslener presented the final Study findings. A panel of experts from BMZ, UNEP FI, GIZ, Allianz, and the Government of Antigua and Barbuda then discussed the complex challenge of adaptation financing and ways to scale up adaptation investments.

The Study can be found at: http://fs-unep-centre.org/publications/demystifying-adaptation-finance-private-sector

EurObserv’ER Barometer – Monitoring and Analysis of Renewable Energies in the EU
The main objective of this project is to create a monitoring tool for renewable energy developments in the European Union for the European Commission and other stakeholders, as the general public, media, investors, or policy makers. This tool allows for tracking the trends in all EU Member States through a series of indicators. In the form of compact and descriptive reports, the EurObserv’ER Barometer provides comprehensive relevant renewable energy developments and trends in the European Union.

The Centre joined the team in the last EurObserv’ER programme, which was co-funded by Intelligent Energy Europe Programme of the European Union from May 2013 to March 2016. Since 2016, the project has received funding from the Directorate-General for Energy of the European Commission. The project team consists of Observ’ER, Renewables Academy AG, Energy Centre Netherlands, Fraunhofer-ISI, and the Centre.

The EurObserv’ER team publishes a yearly overview barometer on “The State of Renewable Energies in Europe” presenting and analysing the indicators. The newly released 16th Edition of this Report includes indicators on installed capacity and energy production as well as socio-economic and investment indicators, where the latter are the responsibility of the Centre. In addition to these indicators, which have also been covered in previous editions, the EurObserv’ER team will add new indicators in future overview barometers. These will cover additional dimensions, such as the trade of renewable technologies and services, costs of renewable technologies, the contribution of renewables to energy security, research and development, and the integration of renewables in the building stock and urban infrastructure.
**DID YOU KNOW?**

The Green Climate Fund (GCF) is a financial mechanism under the United Nations Framework Convention on Climate Change (UNFCCC). It intends to provide financing for climate change mitigation and adaptation measures from OECD to non-OECD countries, while promoting direct access for developing countries. The GCF’s expected volume is USD 100 billion per year by 2020 and as of December 2016 43 state governments had committed to provide USD 10.3 billion.

The German Government has committed itself to make non-OECD countries ‘ready’ for the GCF by strengthening their national capacities to access the GCF. In order to do so, the German Ministry for the Environment (BMUB) has invited UN Environment, the United Nations Development Programme (UNDP) and the World Resources Institute (WRI) to develop a GCF Readiness Programme.

The German GCF Readiness Programme began in 9 countries and is expected to offer needs-oriented support to countries for accessing and using climate funds. Developing countries are being prepared to effectively and efficiently plan for, access, manage, deploy and monitor financing through the GCF.

The Centre is supporting the implementation of the financial sector component of the GCF Readiness Programme in 6 countries: Benin, Colombia and Ghana, the Philippines, El Salvador and Kenya. The Centre’s engagement in the Programme focuses on support for engaging the private sector in developing countries to support climate change investments.

**PREPARING THE PHILIPPINE FINANCIAL SECTOR FOR CLIMATE FINANCING**

In December 2016 the Centre team organised a field visit in the Philippines and met the most important financial sector representatives of the country and other relevant stakeholders to identify the needs of the financial institutions in terms of climate financing. The mission aimed to analyse both the existing financial mechanisms and instruments and the current barriers and opportunities for climate change financing.

The financial sector in the Philippines is well developed and comprises a large number of different types of financial institutions. In order to get a realistic overview of the market, the team met representatives of several types of institutions including public and private commercial and universal banks, microfinance institutions (MFIs), associations of financial institutions, an Islamic bank, technology providers for climate smart products, Multilateral Development Banks and other international institutions active in the Philippines. An outcome of the mission was that some climate financing activities exist, but most of them are donor led with a narrow focus, typically on single technology solutions (e.g. solar PV finance). Leaders in climate financing are in particular the public development banks (Development Bank of the Philippines and the Land Bank, accredited as a National Implementing Entity (NIE) by the GCF). However, immense awareness raising and capacity building needs still exist in financing climate mitigation as well as adaptation activities; considering that the Philippines are highly vulnerable to climate change. In particular SMEs offering climate smart products face challenges in accessing finance.

The next steps of the project are conducting climate financing workshop seminars for banks and MFIs by the Centre’s finance experts and the development of suitable financial mechanisms.

**GCF READINESS PROGRAMME ACTIVITIES IN EL SALVADOR**

The Centre is currently supporting the financial sector of El Salvador in the implementation of the GCF Readiness Programme. The objective is to identify new financial mechanisms that can foster climate-related investments (for mitigation and adaptation activities).

The activities of the team in El Salvador began in September 2016 with the execution of a desk study, which compiled information on the financial sector (including macroeconomic context, stakeholder analysis and regulatory framework) and local climate finance experience, followed by two field visits to meet financial sector stakeholders operating in the country.

The analysis then consisted of three steps: a) identifying existing barriers and needs of climate change actors; b) identification of existing instruments / mechanisms and remaining gaps; and c) the conceptual design of financial mechanisms to address the gaps and favour green investments. The results of the study with its proposed financial mechanisms will be presented during a training workshop for FI/MFIs in July 2017.

Finally, the phases of development and implementation of the suggested mechanisms will start. These will identify, among others, the key actors involved and their roles; the necessary funding and possible sources; and the timeline with milestones needed to develop the mechanisms.

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Ecosystem-based Adaptation (EbA) is a concept that strengthens natural systems to moderate the negative impacts of climate change.

A commonly used definition comes from the Convention on Biological Diversity: “EbA is the use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people adapt to the adverse effects of climate change.”

EbA means adaptation powered by nature. The aim is to increase the resilience of natural ecosystems and the services and species that support them, so that they are prepared for the impacts of climate change. The concept of EbA is relatively new, and it is still being developed and tested in the field. EbA can be implemented in diverse fragile ecosystem settings, such as mountains, coasts, wet- and dry-lands, and forests.

The Microfinance for Ecosystem-based Adaptation to Climate Change (MEbA) project, funded by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) and implemented with 5 MFIs in Peru and Colombia by UN Environment-ROLAC, runs from January 2012 to December 2017. Frankfurt School - through the Centre - executed the project from April 2012 to December 2016.

The project was conceived with the idea of combining climate change and microfinance and to provide vulnerable local populations with products and services to invest in the resilience of ecosystems upon which they depend. Peru and Colombia were identified, not only resulting from the long and good reputation of their microfinance sector, but also as being particularly vulnerable to the negative effects of the changing climate. One of the climate impacts is the fast retreat of Andean glaciers, which affects seasonal water flows and the availability of water.

MEbA focused on supporting climate-smart adaptation approaches or (M)EbA, fostering and piloting the use of new and amended microfinance instruments to that end. By the end of last year, partner MFIs financed 7,125 MEbA loans in total with an average loan of USD 1,300, resulting in an estimated leverage of more than USD 9M. Out of the 40 (M)EbA measures identified during the project, partner MFIs financed almost half of them (organic fertilisers, soil conservation, crop diversification, agroforestry, ecotourism, drip irrigation, solar hydroponics, amongst others).

The MEbA project is also a good example of a successful public-private partnership which also raised awareness with regards to climate adaptation within the microfinance sector in LAC.

UN CC:Learn is the One UN Climate Change Learning Partnership, which supports countries in designing and implementing learning programmes to address climate change. Its Secretariat is provided by the UN Institute for Training and Research (UNITAR). In 2013, the Centre supported the UN CC:Learn’s activities for the first time by contributing to a climate finance seminar of the National Council for Climate Change and Clean Development Mechanism (CNCCMDL) of the Dominican Republic; presenting the global climate finance architecture and the unique access modalities of different funds.

More information on the joint webinar held in March can be found here: http://www.uncclearn.org/news/countries-central-america-discuss-priorities-climate-change-education-financing

In 2015, UN CC:Learn initiated a regional programme on climate change education, training and awareness-raising among Central American Integration System (SICA) countries. The programme builds directly on the 2010 Regional Strategy on Climate Change (RSCC), which highlights “Education, Awareness, Communication and Citizen Participation” as one of six strategic areas. The associated Regional Action Plan aims to maximise synergies, foster common initiatives, and increase the effectiveness of climate change learning. To mobilise resources for the implementation of the plan, partner countries have expressed interest in developing a joint proposal for a major international funding source.

On March 2nd, 2017, the Centre assisted UN CC:Learn in developing and conducting a short series of one webinar and one seminar for government officials of Central American countries that are engaged in preparing for climate change education and mobilising funds. Representatives from 12 ministries of education and environment joined the discussion to explore different financing and resource mobilisation mechanisms for climate change education and training.

The input of the Centre focused on an introduction to climate change finance. Furthermore, by connecting the principles of access to finance and of project development, the Centre will contribute to an exercise for drafting a joint project concept and action plan that can be used for developing a joint proposal and for fundraising efforts.
The AFFP programme is open to highly motivated applicants from developing and emerging countries who wish to pursue an academic or professional career in climate adaptation and finance, or who are already working in this field.

The first programme is currently ongoing and there will be a second group of fellows starting in September 2018. The application process will start towards the end of 2017.

More information on how to apply for the AFFP and key days for submission is available on the AFFP website: [www.adaptation-fellowships.org](http://www.adaptation-fellowships.org)

**SUCCESSFUL KICK-OFF: ADAPTATION FINANCE FELLOWSHIP PROGRAMME (AFFP)**

Recent climate change research has generated evidence regarding the magnitude of additional investment and financial flows needed for adaptation. The FS-UNEP Centre and the FS International Office have jointly set up the Adaptation Finance Fellowship Programme (AFFP) together with The International Development Research Centre (IDRC) and the Thailand Development Research Institute (TDRI) to build up capacities and enhance knowledge in developing countries in this emerging field.

The AFFP supports and promotes exceptional individuals during two consecutive program-cohorts. The participants’ origins from climate adaptation related fields in developing and emerging countries join together for an 18-months programme through one of three streams: business, policy or research.

This interdisciplinary exchange contributes to building leadership in adaptation finance across multiple sectors. The aim is to enhance sharing of knowledge and best practices and to enable the development of relevant climate solutions. At the end of each programme, the AFFP-fellows will be equipped with the necessary tools to allow them to mobilise finance for resilient development in their respective countries.

From April 26th to April 28th 2017, the first fellows, 18 selected mid-career professionals from five continents, visited Frankfurt School to kick-off the first cohort of this programme.

The first AFFP fellows at Frankfurt School for the Kick-off in April 2017

The opinions, findings, interpretations and conclusions expressed in this newsletter are those of the Frankfurt School and do not necessarily reflect the views of UN Environment, the German Ministry for the Environment, Nature Conservation and Nuclear Safety or other donors. Neither of the above mentioned institutions and bodies nor any person acting on their behalf may be held responsible for the use which may be made of the information contained in this newsletter.