



Annual Activity Report

2015



REGIONS OF CLIMATE ACTION

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2015 was a successful transition year for R20. Considerable effort has been invested in the finalization of R20's portfolio of projects that started back in 2012. During four years of hard work (2012-2015), R20 was able to build a broad range of key demonstration projects relating to climate change and the SDGs, using different technologies. Located in its member regions across four continents, the R20 projects are of different sizes and cover several sectors: waste management and energy efficiency in Algeria and China, solar energy in Mali, LED street lighting in Brazil, community-based projects for access to renewable energy in Burundi and Nigeria.

The year 2015 was also a pivotal year for climate negotiations: COP21 was an important marker and the adoption of the Paris Agreement signalled a historical breakthrough. R20 has invested heavily in this process, particularly through the establishment of its R20 Paris office that played a crucial diplomatic role since R20's World Summit of Regions for Climate in October 2014. The Paris Agreement represents a political detonator which has the potential to unleash the green economy. All the conditions for change are being met and R20 is closely following up on the impact of the Agreement and preparations for COP22. The latter is expected to flag major progress from the "COP21 agenda of solutions" to the "COP22 agenda of commitments" and the implementation of effective measures.

Despite its different offices around the world, R20 remains a small organization whose strength lies in its regional teams, totally dedicated and focused on innovation. The leaders of R20's regional offices have worked outside the beaten path, exploring new forms of partnerships. Today, that effort pays off: R20 is one of the few world organizations that have managed the successful matching between political, industrial and financial spheres.

Building on these achievements, as of 2016, R20 starts its second phase of development by concentrating all of its efforts on the establishment of a value chain for the effective development of green infrastructure projects at the subnational level. In December 2015, in Paris, the R20 Bureau and General Assembly endorsed the 2016-2020 action plan which should create the conditions for scaling up the green economy transition – a step that is more than



ever necessary and desired.

In order to establish and maintain this value chain, R20 will channel its efforts on:

- Comprehensive training for “green economy managers” in order to shape a new generation of skilled partners who master green policies, technologies and finance, and can conduct feasibility studies;
- The establishment of Pre-Investment Facilities (PIF) centred on different topics and geographical areas, to provide funds devoted to feasibility studies in order to build portfolios of bankable green projects;
- Access to massive investments through the Green Investment Accelerator Fund (GIAF), a financial instrument that secures investor commitments for those bankable projects.

By acting on these leverage points that are the building blocks of the new green economy, R20 aims to shape the complex dynamic of economic and sustainability conditions on the ground. In this respect, R20 was recognized for its vision, concrete results and pragmatism: it was selected on behalf of the Office of the Secretary General of the UN, to host the Cities Climate Finance Leadership Alliance (CCFLA), in cooperation with FMDV, UNEP and UNDP. To achieve its objectives, R20 is already working with the largest French financial institution, the Caisse des Dépôts et Consignations (CDC) and the engineering company EGIS, to structure a large-scale Pre-Investment Facility for waste management.

During the next four years R20 will move decidedly forward, from its demonstration phase to the scaling-up of its model, looking ahead to showcasing concrete results by 2020, when the Paris Agreement is expected to enter into force.

Christophe Nuttall, PhD
Executive Director

CHAPTER I:
STRATEGIC REPORT

STRATEGIC REPORT

1.1. R20 Mission

R20 assists subnational governments around the world to develop and communicate low-carbon and climate resilient economic development projects. By connecting government policies with technology companies and finance, R20 helps identify, design and implement green infrastructure projects including renewables, energy efficiency, clean fuels, waste reduction, etc.

R20 mobilizes all stakeholders through a “bottom-up” approach that grants considerable leverage in the transition to the green economy. R20’s concrete projects and initiatives illustrate this approach. Scaling-up globally requires ambitious commitments from national and local governments, as well as matching investments from the public and private financial sectors.

1.2. R20 and the Global Climate Change Agenda

The year 2015 was crucial time for climate negotiations, with new Sustainable Development Goals (SDGs) for 2030 and a new international agreement adopted at the Paris Climate Conference in December. The “Solutions’ Agenda” promoted by the French Government ahead of COP21 was key to convincing governments that climate change constitutes an opportunity for development, enabling the creation of new green jobs, innovative technologies, greater energy security, a preserved environment and improved health for populations world-wide.

The adoption of the Paris Agreement at COP21, and the 2030 Sustainable Development Goals indicate an important evolution in the global response to the climate change threat. They demonstrate unanimous political commitment to reduce GHG emissions globally and they open a new era for climate action based on a new vision of sustainability and growth.

These international decisions recognise that current trends in favour of a clean energy transition will involve massive infrastructure transformations world-wide. Implementing the Paris Agreement will require stepping up the adoption

of low-carbon and climate-resilient solutions: a process which in the next decades should dramatically alter economic landscapes, both locally and at scale.

Implications for Policy Makers

For decision makers, both at national and subnational levels, major challenges lie ahead. There is increasing pressure to implement pro-green policies that encourage the creation of green jobs, clean technologies, greater energy security, a preserved environment and improved health for populations.

However, paradoxically, in many instances where the clean energy transition is high on political agendas, government officials still lack relevant information to make appropriate decisions, or their administrations are short of technical knowledge and access to funding, struggling with implementation and internal processes.

Implications for Technology and Project Development

In parallel, economic actors of the green economy are already competing for markets, continually innovating and developing new pro-green products and services. Today, applicable and affordable technologies exist and an increasing number of companies offer solutions for deployment and maintenance.

National and local decision makers have a vast choice of technologies for waste management, waste-to-energy, recycling, energy efficiency for new and old buildings, LED street lighting, renewable energy, clean mobility, etc. Yet, informed decisions demand a good understanding of the solutions, their viability under local conditions, a profitable cost-efficiency ratio and clear socio-economic and environmental impacts.

This type of detailed information is usually aggregated and presented in the form of pre-feasibility and feasibility studies describing the contextual and technical aspects of the proposed solution, as well as the benefits and costs involved.

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More importantly, state-of-the-art feasibility studies are not only prerequisite tools for decision makers, but they provide the overall project financial outlook and the necessary return on investment (ROI) information to attract investors, ultimately making a project “bankable”.

Implications for Financing

Within a global context affected by both the climate and economic crises, the world of finance is taking an increasing interest in shifting capitals from the carbon economy to the green economy. In doing this, public and/or private investors comply with various constraints and requirements expected to guarantee the amounts invested and the ROI. However, de-risking factors such as strong political backing, sound technical solutions and financial engineering (feasibility studies) are often insufficient, causing investors to claim that “good green projects” are scarce or non-existent.

Therefore, there is a solid opportunity for green project development, through partnerships with technology companies and with the support of policy makers, in order to minimize risks and unleash massive investments in the green economy.

1.3. The R20 Track Record and Vision

For R20, 2015 was a decisive time to demonstrate that concrete solutions exist and are being implemented today by national and subnational governments, private companies, as well as the financial sector. The year focused on delivering concrete project results, building on the first four years of R20 operations.

During its first implementation phase (2012 – 2015), R20 has demonstrated that by working simultaneously with decision makers, technology companies and investors, it can identify, design, finance and implement bankable projects. Examples include waste management in Algeria, production of solar PV electricity in Mali (50 MW) and LED public lighting in Brazil, with an overall cumulative CAPEX of \$1 billion.

PHASE I: Demonstration Projects (2012-2015) - Project Development Model

R20 plays the role of impartial facilitator between:

1. POLICY MAKERS
2. TECHNOLOGY COMPANIES
3. FINANCE

helping to remove barriers between sectors, building trust and aligning interests towards the shared **objective of developing bankable projects**.



BANKABLE GREEN PROJECTS

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1. Building the Project Partnership Base

At all stages of project development, R20 builds strong, long-term partnerships between decision makers, technology holders and investors, brokering agreements and managing relationships during the full project life cycle. R20 plays the role of impartial facilitator between stakeholders coming from different backgrounds. This is an essential task as it helps remove barriers within and between sectors of activity, builds trust and aligns interests towards the shared objective of designing and implementing bankable projects.

2. Securing the Political Base

At the policy level, R20 works with regional and national officials to secure political commitments. This is a crucial first step that guarantees appropriate legal frameworks for project development and deployment. R20 provides both policy advice and training to design pro-green policies at the subnational level.

3. Project Structuring (Technical Feasibility & Financing)

Based on adequate green policy, R20 can work with technical operators to produce portfolios of bankable projects in the beneficiary region:

a. Project pre-feasibility and feasibility studies are carried out through collaborations between R20 and the best-suited technology partners around the world. The R20 corporate partners' database offers a vast choice of technologies, while completed technical and financial feasibility guarantees project economic viability and positive socio-economic impacts.

b. Project development is achieved through the setting up of Pre-Investment Facilities (PIF) designed to finance pre-feasibility studies. The PIF's sources of finance include public funds (national, sovereign, bilateral or multilateral) and/or private funds (banks, private equities);

c. Pre-Investment Facilities (PIF) support the preparation of bankable projects in an efficient and cost-effective manner. Estimates indicate that initial funding for the pre-feasibility of a project can attract investments up to thirty times higher than the PIF amount.

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4. Project Finance & Realization

During project maturation, R20 identifies potential investors through its investment platform – the R20 Green Finance Network (GFN), a network of investors, sovereign bank funds, development banks and other financial institutions. Pro-green investor profiles and their preliminary consultation ensure that projects, thus determined as feasible, receive the projected financing. The fact that the investment platform is managed in parallel with project feasibility minimizes risk and secures the return on investment.

Finally, R20's financial scheme for scaling up, the Green Investment Accelerator Fund (GIAF), is designed to attract investments for projects developed under the PIF, thus unleashing billions from the R20 Green Finance Network or from additional investors and financial institutions (based on the widely-endorsed R20 Climate Finance Advisory Committee action plan of COP21).

PHASE II: Scaling Up (2016-2020) - Accelerated Financing and Training

In order to meet international commitments under the Paris Agreement, R20 is prepared to start implementing its Phase II Strategy (2016 – 2020) aimed at stepping up the transition to the green economy, by replicating and scaling up its successfully implemented demonstrative projects. To do this, R20 wants to use its project development model to build capacities and equip a new generation of professionals with the necessary skills for green project development, while also making available financing schemes to enable implementation.

Based on its demonstration projects, R20's Phase II strategy is aimed at unlocking the great potential for projects globally. In order to do so, two key enablers must be put in place:

1. An ecosystem of blended finance from philanthropies, bilateral and multilateral funds, private equities, pension and sovereign funds, debts/loans; and
2. A training and capacity-building programme for national and subnational leaders, designed to provide them with the knowledge, tools and skills necessary to catalyse the transition to the green economy.

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R20 Financial Instruments

1. Pre-investment Facilities (PIF)

As a first step, R20 is designing the concept of Pre-investment Facilities (PIF) to provide investors with a portfolio of bankable projects from different regions and different sectors: currently renewable energy, energy efficiency and waste management. The PIFs are structured as revolving funds with seed capital for pre-feasibility studies. Dedicated PIFs are under development for our large-scale initiatives: solar PV in Sub-Saharan Africa, waste management, faithful cities, etc. Each PIF ranges from US\$ 3 to 10 million.

2. Green Investment Accelerator Fund (GIAF)

To provide a dedicated source of capital for the projects developed under a PIF, R20 in parallel, is proposing the concept of Green Investment Accelerator Fund (GIAF). The GIAF provides seed capital that can align project developers with intermediaries that can de-risk transactions and ensure the bankability of projects. The GIAF acts as an accelerator, helping to jumpstart transactions and unlock access to important sources of capital. The GIAF proposes a target fund ranging from 200 million to 1 billion US\$.

3. A Global Institutional Multi-Stakeholder Framework: Cities Climate Finance Leadership Alliance (CCFLA)

CCFLA is an initiative of the United Nations Secretary General, managed by the Secretary-General's Climate Change Support Team. The CCFLA mission is to catalyze and accelerate additional capital flows to cities and regions, maximize investment in low-carbon and climate-resilient infrastructure, and close the investment gap in urban areas over the next fifteen years. As of January 2016, the Alliance is managed by a coalition of organizations including R20, the UN Environment Programme (UNEP), the UN Development Programme (UNDP) and the Global Fund for Cities Development -- Fonds mondial pour le développement des villes (FMDV).

The Alliance members (over 40 public and private banks, national and city governments and civil society organizations) collaborate on a range of activities in a coordinated effort to deliv-

er their mission. In broad terms, Alliance members consider that the currently inadequate flow of capital to underwrite investments in low-carbon and climate-resilient infrastructure can be stimulated and accelerated by pursuing three main outcomes:

- **Increased visibility:** Highlighting the current flows and existing city climate finance “investment gap” - namely the gap between current level of investment in low-carbon and climate-resilient infrastructure and that which is required to avert dangerous levels of climate change (i.e. beyond a 2°C global temperature rise). By increasing visibility and highlighting the city climate finance investment gap through, for example: multi-stakeholder dialogues with leading members of the international investment community; coordinated communications campaigns; and demonstrating the connection of the proposed investments to the goals of the UN Secretary-General, the Alliance can maximize global attention to this issue and stimulate additional investments.

- **Increased capacity:** Identifying barriers and promoting solutions (such as policy conditions, institutional arrangements, new skills and knowledge) necessary to facilitate additional large-scale capital flows of investment into climate resilient and low-emissions infrastructure. For example, by increasing the capacity of cities and regions to raise and receive investment through facilitating collaborations between support organisations and cities, to deliver training (e.g. in municipal green bonds), the Alliance can help build capacity and enable cities to become “investment ready”.

- **Increased supply:** Identifying and mobilizing existing and innovative new models of public and private investments in configurations that are scalable and replicable. For example, by working with supply-side actors (public and private investors) through multi-stakeholder dialogues; roundtables and meetings to stimulate new investments, the Alliance can help to increase the overall scale and volume of investments flowing into climate-resilient and low-emissions infrastructure.

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CCFLA Members as of December 2015:

- African Development Bank
- Bank of America Merrill Lynch
- Bloomberg Philanthropies
- Carbon Disclosure Project (CDP)
- C40 - Cities for Climate Action
- Citibank
- Cities Development Initiative for Asia (CDIA)
- Development Bank of Latin America (CAF)
- European Investment Bank (EIB)
- French Agency for Development (AFD)
- German Development Bank (KfW)
- Global Infrastructure Basel (GIB)
- Global Environment Facility (GEF)
- Johns Hopkins University School of Advanced International Studies (SAIS)
- Gold Standard Foundation
- ICLEI - Local Governments for Sustainability
- Japan Investment Cooperation Agency (JICA)
- The Inter-American Development Bank (IADB)
- R20 – Regions of Climate Action
- Standard & Poor's Ratings Services
- UCLG – United Cities and Local Government
- Government of the United States of America
- Le Fonds Français pour l'Environnement Mondial (FFEM)
- Meridiam
- UN-Habitat
- West African Development Bank (BOAD)
- World Bank Group
- World Resources Institute (WRI)
- Worldwide Fund for Nature (WWF)

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Training

An important aspect of R20's Phase II Strategy involves designing a new training programme for national and local decision makers, helping them to develop skills as potential bearers of green projects and effective facilitators in the transition to the green economy. The programme is structured as a one-year certifying training, delivering both a holistic approach to green economic development and in-depth teachings on project development (technical and financial feasibility). The overall objective of the training programme is to build knowledge and skills to accompany portfolios of green infrastructure projects that meet bankability criteria and accelerate the transition to the green economy.

1. Skills and Competencies to be Developed

Based on its project development model, R20 was able to identify the gaps to advancing green growth and accelerating the clean energy transition on a global scale.

a. There is an absolute need for working outside of silos, and within partnerships and networks. This requires **facilitation that brings together stakeholders** from different backgrounds to understand each other's needs and to address project development bottlenecks. Such partnerships will essentially include decision makers, technology companies and financial partners/investors;

b. Working together across these three sectors involves new skills such as **policy advice, technology and financial competencies**, delivered by professionals who have a deep understanding and a holistic vision of the public policies, technical solutions and funding mechanisms required to lead the transition to the green economy;

c. Accelerating the transition requires designing concrete infrastructure projects, where facilitators must be able to **closely accompany project development processes**, by identifying opportunities, selecting the appropriate technologies and ensuring matchmaking for businesses in support of new markets for renewable energy, energy efficiency, waste management, clean

mobility, etc.

d. Facilitators will have complete **knowledge of the financial mechanisms for carrying out pre-feasibility studies**, notably by setting up Pre-Investment Facilities (PIF). Whilst the funds needed for feasibility studies are a fraction of total project costs, they are absolutely essential to a project going forward.

e. Finally, one extremely important skill pertains to **understanding the financing world and making a project "investment-ready"**; the challenge is to ensure that bankable projects proposed to investors actually receive the projected financing and are implemented. Financial institutions (development banks, development agencies) and private investors often remain on the receiving end of the project development process, which can slow down the "green deal flow" and consequently the transition to the green economy.

2. R20 Training Courses

a. Theory and practice of green economic development

This first theoretical module is based on concrete case studies, to be delivered both by experienced academics and professionals engaged in developing and implementing green infrastructure projects. This module is structured under three main themes:

i) Public policies conducive to building an enabling environment for a particular project (i.e. renewable energy, energy efficiency, waste management, clean mobility, etc.);

ii) Existing technologies and services, market analysis, identification of project opportunities;

iii) Funding mechanisms for access to the capital needed for project feasibility on the one hand, and financing implementation on the other hand (green investments).

Upon satisfactory completion of the first theoretical module, the second module provides practi-

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cal “real-world” training.

b. Practical training on concrete infrastructure projects

The second module enables students to “learn by doing”. The challenge of the second module is to perform the feasibility study of a specific project which has been endorsed by the student’s employer institution. This work on a concrete project is a practical exercise backed by step-by-step professional support, gradually bringing the student to the final stages of project bankability and its submission to the investors.

Completion of the 2nd module is expected to result in specific projects on the ground, supported by feasibility studies and the necessary financing. Ultimately, the project will be expected to attract investors and be implemented under the full endorsement of the student’s employer institution (government entity, region, city, etc.)

The final degree (Mastère¹ degree) is obtained after completing both modules and successfully passing the written and oral examinations. In addition, completion of the second module will be evaluated on the quality of the project and its acceptance by the panel of investors solicited.

c. Beneficiaries

The proposed R20 training programme is primarily directed to government officials and decision makers employed at national, regional and city levels. It ensures that political commitments (Paris Agreement and 2030 SDGs) are translated into concrete action through the design, development and implementation of portfolios of green bankable projects.

Hands-on technical and financial project fea-

1. The Mastère Spécialisé, also called the Specialized Master or Advanced Master is a French post-graduate specialization degree created in 1986 by the French Conférence des Grandes Écoles.

sibility helps decision makers work out of silos and understand other stakeholders’ interests. If carried out to the satisfaction of the employer institution, the training programme is expected to create high socio-economic value (job creation) and deliver positive environmental impacts.

The training programme is equally beneficial to private sector professionals, project developers and financial analysts who want to gain expertise in building and financing green infrastructure projects. This allows them to better position their pro-green products and services in emerging markets and also help develop new markets in the new green economy.

d. R20 Partner Institutions

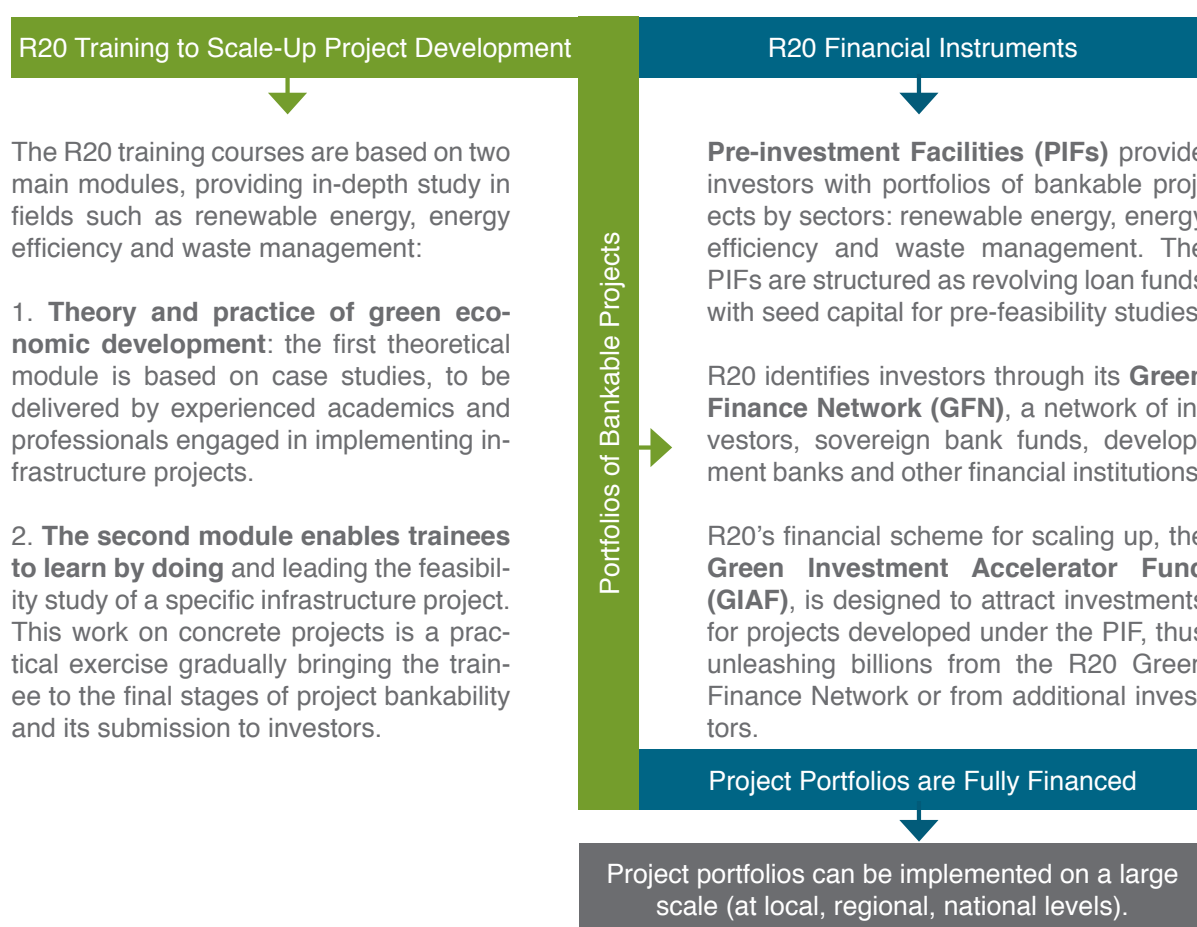
The training programme will be developed in close collaboration with certified training centres, and/or universities, skill centres, specialised networks and institutions working around the proposed themes and in strategic geographical areas (Africa, Brazil, China, Middle East, etc.).

R20 is in a position to mobilize the necessary expertise and contribute to the drafting of the modules, conducting training sessions and involving its professional staff, experts and networks. R20 can also secure the support of the United Nations agencies and institutions working around the proposed themes: UNITAR, UNOPS, UNDP, UN-HABITAT, UNEP, UNEP-FI.

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R20 ACTION PLAN FOR 2016 – 2020

In order to contribute to the Paris Agreement commitments, the R20 Action Plan for 2016 – 2020 aims to step up the green economy transition through R20's financial instruments, to enable effective project design and implementation on a large scale. Upstream, R20 relies on its project development model (Phase I: 2012-2015) to deliver theoretical and practical training, and build new skills for green economy managers.



CHAPTER II: PROJECTS

REGIONS IN ACTION

Europe

R20 Paris

Following the decisions made during the 2014 World Summit of Regions for Climate to establish an R20 affiliate office in Paris, Ms. Michèle Sabban, R20's President, with the support of Akuo Energy, secured office space in the heart of Paris, at 140, Avenue des Champs Elysées. Operating from the new R20 Paris office, Ms. Sabban joined France's special COP21 team, a 400-member squad mobilized to ensure the success of COP21 in December 2015.

In parallel, Ms. Sabban launched the new R20 initiative "Women Leaders for Climate Action", on the occasion of a roundtable dialogue led by Mary Robinson (UN Special Envoy for Climate Change) and Reta Jo Lewis (R20 Ambassador for Women). The initiative highlights the role of women in the three sectors that are being disrupted by the transition to the green economy: policy-making, technology and finance, in the run up to COP21 and beyond. With increasing recognition that women are key to tackling climate change, the Women Leaders initiative seeks to both inspire and support actions led by women from across the globe on climate and the green economy. The initiative has established a "Fund for Women in the Green Economy" aimed at supporting women in areas such as: innovation in the green economy; energy, and/or water and food security; action against food waste; social responsibility and sustainability education.

During the year, Ms. Sabban participated in several high-level political events championing subnational efforts to combat climate change, and promoting the role of women in the green economy:

Women's Tribune (29-30 May): Held by the Moroccan organization (Women's Tribune) and R20 in Skhirat, in partnership with UN Women, under the high patronage of King VI of Morocco, the event gathered prominent figures involved in the promotion of the role of women and climate change. The Tribune recognized the increasingly active and impactful roles and actions women have achieved in countering global climate change. Past themes for the gatherings have included women leading innovations in the green economy, societal sustainable development, and basic rights such as water and food. The

organizations involved in bringing this conference together are R20, ICLEI, M6 Foundation, ORU-FOGAR, FMDV, and the Mexico City Pact.



(Left) Ms. Michèle Sabban (R20) with First Lady Sylvia Bongo Ondimba (right)

New York Forum Africa (28-30 August): An event held under the High Patronage of Mr. Ali Bongo Ondimba, the President of Gabon, gathered economic and political world leaders in Libreville, Gabon to discuss the next stage of development of the great continent.

The event was the only pan-African summit to be held in Africa in 2015. It was held in conjunction with another important event, the first Climate South Initiative, to define the role of countries in the South in the fight against climate change, and to identify solutions ahead of COP21 in Paris.

Ms. Sabban participated on a panel with Mr. Etienne Massard, the Secretary General of the Gabonese Presidency, during which time she presented R20's projects and the R20 Fund for Women. **"We cannot overlook 49% of the world's population, so we want to help women who want to launch green businesses. We are talking about solidarity between women. We want to give women a platform to support other women,"** said Ms. Sabban on the Fund. The response to the announcement was so positive that President Bongo Ondimba, First Lady Sylvia Bongo Ondimba, and Ms. Sabban had a private meeting after the panel to discuss setting up a Fund in Gabon. The First Lady graciously offered her support to help set it up.

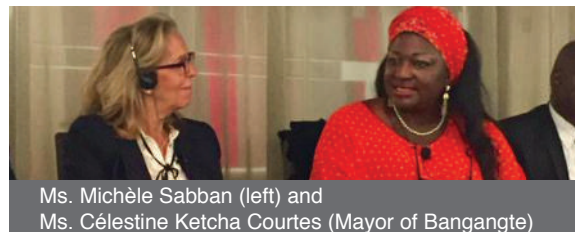
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Europe

R20 Paris



Bogota Climate Summit (20-23 September): Organized by the Mayor of Bogota, Mr. Gustavo Petro, Latin America’s largest event in preparation for COP21. Michèle Sabban addressed the hundreds of participants emphasizing the importance of empowering subnational governments so that they may proactively steer their regions towards the green economy. During a meeting with Ms. Sabban, the First Lady of Bogota (the Mayor’s spouse) expressed her support for R20 stating that Colombian women need initiatives like R20’s. Ms. Sabban detailed the inner workings of the R20 Fund for Women in the Green Economy during a meeting with women leaders and CEOs.



Ms. Michèle Sabban (left) and Ms. Célestine Ketcha Courtes (Mayor of Bangangte)

Climate Week NYC (24-29 September): In New York City, Ms. Sabban attended several side-events during Climate Week, where she met with Mr. Khalifa Ababacar Sall (Mayor of Dakar), Mr. Mpho Parks Tau (Mayor of Johannesburg) and Mr. Gustavo Petro (Mayor of Bogota). She held a meeting with Ms. Lakshmi Puri (Assistant Secretary General of the UN and Deputy Executive Director of UN Women), to discuss the R20 Fund for Women. In a side event on the social economy attended by President Francois Hollande of France, Ms. Sabban took the stage to affirm the important role that women play in the economy, and the tremendous positive contributions women make every day to counter climate change. The event was attended by the Chilean Minister of Social Development, the Ambassador of Chile, Ibrahim Boubacar Keïta (President of Mali), and the French Minister of Development.

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Europe

R20 Austria & EU



Just one year after its creation, R20 Austria & EU, with the financial support of the Austrian Ministry of Agriculture, Forestry, Environment & Water Management (BMLFUW), is making great progress in establishing a global energy hub in Vienna, Austria. In order to make this approach feasible, R20 Austria & EU are following up on the R20 Austria Conference 2014 and connecting with key stakeholders and energy experts from a broad range of national and international organizations.

An Austrian delegation, including the Austrian Minister for Environment, joined the World Summit of Regions for Climate in October 2014, where the Austrian Minister invited Gov. Arnold Schwarzenegger to be part of the Austrian delegation at COP 21 in December 2015. Monika Langthaler, as the Director of R20 Austria & EU, followed up to ensure arrangements for Gov. Schwarzenegger's address at the high-level ministerial meeting at COP 21, during the Austrian speaking slot. The keynote speech highlighted subnational actions to combat climate change and granted high visibility to R20 in front of over 100 ministers from all over the world.

In parallel, for the past 14 months, R20 Austria has been working on setting up a matching platform for the main stakeholders, aimed at designing instruments to remove barriers at the pre-project processing phase for renewable projects. Austria has a long tradition as a host of international organizations. In addition to the UN having a seat in Vienna, many other important energy

related organizations (UNSE4all, UNIDO, IIASA, OECD, OPEC and OPEF Fund etc.), have their offices in Vienna. This knowledge could be very useful for the Austrian and European business sector and also for the finance community starting to divest their portfolios from fossil fuels to renewable energy. The matching platform from R20 Austria & EU intends to make the know-how and the contacts of resident international and national energy and climate-related organizations and institutions available to companies and other relevant partners. At the moment we are looking for business partners to sponsor the creation of the first phase of this matching platform in Vienna under the umbrella of R20 Austria & EU.

One important goal of this platform will include education and training to provide national and subnational governments with the technical expertise needed to implement green projects in their home regions by learning from successful best-practice projects and academic partner organizations. The projected training program would cover the implementation of green economy policies and the adaptation of appropriate technologies as well as the financial tools needed to implement substantial change at the national and subnational level.

With the implementation of this project, Austria could not only further its own position as a leading country and hub for worldwide regional best-practice projects in the field of climate protection and renewable energy, but it could also enable other world regions to build strong sustainable economies and to make available clean and local sources of energy.

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Europe

Germany



R20 and Lebendige Stadt signed a Memorandum of Understanding to enhance cooperation between German regions and R20's members on sustainability projects. The agreement was signed by Christophe Nuttall, Executive Director of R20, and Alexander Otto, Founder of the Lebendige Stadt Foundation.

“We are very pleased to work with such an internationally operating and renowned organization such as R20 in the future. With their support, our Foundation’s best-practice projects can inspire other international projects and many cities will undoubtedly benefit from them,” said Alexander Otto.

The Lebendige Stadt Foundation is focused on illumination concepts, green areas and the creation and design of urban spaces.

The Foundation has initiated and supported a wide range of “best practice” projects and has provided a total funding volume of around 30 million euros.

Leading individuals from the worlds of politics, business, culture, science and the media have been involved in these projects on behalf of the Foundation.

Romania



The project “Green Cities – Green Regions”, launched on 1st April 2015 and implemented by TERRA Mileniul III Foundation in partnership with the R20 and the Romanian Municipalities Association (RMA), co-financed through a Swiss grant as part of the Swiss Contribution to the enlarged European Union, aims to develop a sustainable partnership between Swiss and

Romanian partners in view of contributing to the identification of adequate solutions for the transition towards a green economy.

Over the next two years, over 20 Romanian local authorities will benefit from technical assistance and expertise in the process of becoming green cities that manage their greenhouse gases so as to reduce the negative impact on the climate.

The projects specific objectives include:

- Increasing the awareness of Romanian local authorities with regard to the green economy, and their expertise in terms of low emissions urban development;
- Increasing the capacity of local authorities to elaborate and implement climate-friendly public policies;
- Increasing the cooperation between green

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Europe

Romania

municipalities and regions in Romania and Switzerland.

In 2015, a group of 20 municipalities benefitted from the know-how of Romanian and Swiss experts through seminars and training sessions, helping them develop realistic measures for reducing carbon emissions. A study tour Switzerland and an international conference are scheduled for 2016. The target group includes local decision makers, civil servants and employees of public services companies under local administrations.

Further on, they will act as information multipliers for communities around them, becoming a nucleus of green regions. In addition, a group of five municipalities will receive assistance for elaborating greenhouse gas emission inventories and action plans (SEAPs, under the Covenant of Mayors) for transitioning to a green economy. Transportation, residences, public buildings and public lighting infrastructures are areas in which local authorities can achieve a reduction in greenhouse gas emissions and significant energy savings. The materials resulting from these activities will be disseminated to the 109 members of the RMA, 103 municipalities and 6 sectors of Bucharest.

On October 1st 2015, R20 MED issued its second activity report covering the second year of implementation (Sept. 2014 – Sept. 2015) of the Framework Partnership Agreement, signed on June 25th 2013 between the Algerian Government and R20. The report is based on the action plan for the year 2014 – 2015, developed and implemented under the leadership the R20 MED steering committee and chaired by the Director of Environment of the Wilaya of Oran. The report closely follows the guidelines given by the Minister of Environment and the Wali of Oran, and summarizes the activities of R20 MED in collaboration with national, regional and local authorities.

During the year under review, actions were focused on the implementation of projects identified and subjected to feasibility studies during the first year of partnership. The topics include:

- “At source” household waste sorting in two districts of Oran;
- Composting;
- Energy efficiency of buildings;
- Solar energy;
- Development of training programs at various levels (local, national and Mediterranean) and the mobilization of stakeholders to create better conditions for project sustainability.

In accordance with commitments made in the Framework Partnership Agreement, the identification of major investments for waste projects was also a major focus during this second year. Moreover, all actions, integrating into the mandate of R20 MED, were developed in consultation with both local and national authorities, as well as Algerian and foreign partners.

The project at a glance – results achieved during the second year of operations:

- Waste sorting in two districts of Oran, involving 42,000 residents
- Sorting line of dry waste in operation: landfill of Hassi Bounif
- 113 tons of recyclable waste recovered within five months (instead of being buried)
- Operational composting center

Outlook for the third year of operations (2016 – 2017):

- Scaling up waste-sorting operations
- Increased mechanical sorting capacity of the Wilaya
- Increased composting capacity
- Implementation of a plastic-waste recycling center
- Implementation of an energy-recovery center for non-recyclable waste



Wali of Oran visiting the sorting lines

A brief overview of R20 MED activities for the year is provided hereafter:

I. HOUSEHOLD WASTE SORTING: OFFICIAL LAUNCH OF WASTE SORTING IN ORAN

In partnership with the Department of Environment of the Wilaya of Oran, the household waste sorting operation was officially launched on April 25th 2015 in two neighbourhoods (Akid Lotfi and AADL Pépinière), under the patronage of the Wali of Oran. The event was marked by the inauguration of the first sorting chain for recyclable dry waste at the Hassi Bounif landfill, in the outskirts of Oran. This was preceded by the organization of a five-day open doors event (23-27 April) in both residential areas. The event mobilized all local stakeholders and various groups trained by R20 MED: peer educators, neighbourhood committees, management bodies, association members, and students supervised by teachers from 13 schools. Taking ownership of the project, they conducted promotional events and distributed information packets to raise awareness about the need and benefits of household waste sorting.

In addition, a door-to-door awareness campaign on sorting was conducted in the Akid Lotfi neighbourhood, involving some 20 youths and members of the El-Moussalaha Association, trained by R20 MED, and covering nearly 1,000 households.

The first results are very encouraging, with ap-

prox. 113 tons of recyclable waste having been collected during the first five months of the operation. An increasing number of households already practice waste sorting and new behaviours are emerging, which raises high hopes for the spread of selective sorting throughout the Wilaya of Oran.

One-day study and consultation on household waste sorting at the People's Assembly of Oran

A one-day study and consultation on household waste sorting was held at the Wilaya of Oran in June 2015, in partnership with the Committee of Health, Hygiene and Environmental Protection of the people's assembly of the Wilaya of Oran. Some 60 participants, representing elected officials, the Department of Environment, the municipal assembly, associations and journalists, discussed a common vision on the issue of waste recovery through selective sorting.

Waste sorting: Three months later

Three months after the launch of the recycling project in Akid Lotfi and AADL Pépinière, there were already significant results, with citizens adopting new habits in terms of eco-citizenship. Thus, sorting is now widely practiced and significant quantities of recyclable waste are recovered in special containers. Approximately 90% is recycled in AADL Pépinière and over 50% in Akid Lotfi. Approximately 1.6 tons/day of dry recyclable waste is collected at the sorting chain for both neighbourhoods.



Extension to El-Ryad neighbourhood

Hasnaoui group (through its management company GIRYAD) initiated a waste sorting project over the course of one year in the El-Ryad neighbourhood, covering over 1,800 households. Within the framework of the project, GIRYAD decided to partner with R20 MED, in particular for joint action on training, public activities for residents, waste collection, etc.

Extension to Sidi El-Houari, IbnSina and Hai Es-sabah neighbourhoods

R20 MED planned to extend training and raising awareness in three new neighbourhoods in order to scale up the waste sorting project.

Job creation, employment and training

Project implementation has been accompanied by job creation around the sorting chain. In the Akid Lotfi district, the Oran Directorate for Employment has enabled the recruitment of a dozen young people for the management of containers dedicated to sorting, as well as monitoring operations on the ground. The extension of the project to other areas of the district will be accompanied by the creation of new jobs, through the same mechanism.

Securing private investments in waste management

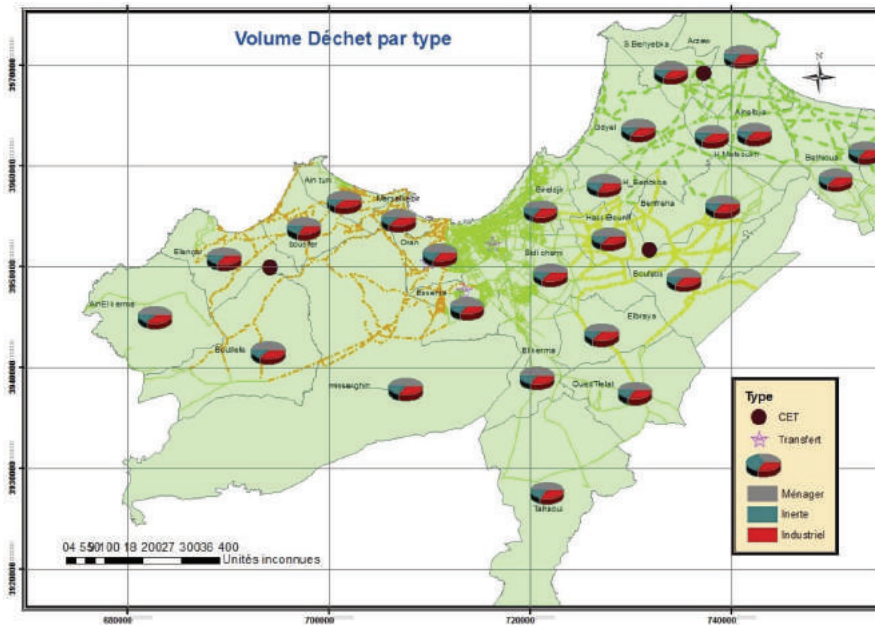
Thanks to the success of the waste sorting demonstration project, R20 has been able to identify a group of industrial companies and investors willing to implement a plastic sorting and recycling facility. The facility would have the capacity to recycle around 1'500 tons per month, and has a CAPEX of € 18M.

In addition, R20 met with a consortium of industrial partners willing to implement a waste valorisation centre in Oran. R20 hosted and attended a number of meetings with all entities of the consortium, to better integrate the project within the waste management plan of the Wilaya of Oran.

II. COMPOST: IMPLEMENTATION OF A DEMONSTRATION UNIT FOR ORGANIC WASTE COMPOSTING

A demonstration operation for the recovery of organic and green waste was prepared for implementation at the controlled landfill, Hassi Bounif (CET) in Oran. R20 supported the project feasibility study and training on the compost production technology, as well as the acquisition of the pilot plant equipment with two composting containers.

The compost is produced from the waste generated at the wholesale level in Oran (4-12 tonnes of waste of which 80% are organic fruit and veg-



GIS Map, Wilaya of Oran, Quantity of Waste per Category

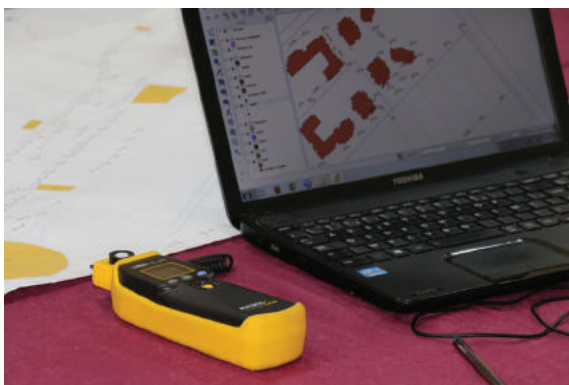
etables) and green waste. After collection and sorting, the waste was transferred to the CET to produce compost. As a preliminary measure, the company responsible for managing the wholesale market began sorting the waste it generates, thereby producing a significant amount of recyclable dry waste that is transported to the sorting line recently made operational in Hassi Bounif.

III. GIS: FIRST PROTOTYPE OF A GIS PLATFORM IN ORAN

Oran adopted a new decision-making support system: a geographic information system (GIS) dedicated to waste management and street lighting was developed for the benefit of the Wilaya of Oran, with the support of R20. The project was led by a team of national experts, in consultation with all stakeholders and potential users: EPIC CET and ERMESO, Es-Senia districts.

In collaboration with the Wilaya of Oran and the Department of Environment, the project *Map-*

ping the territory with inventory and analysis of opportunities related to waste management and street lighting in Oran was launched in May 2015. The platform uses a set of images and high-resolution satellite data, enriched with information that reflects the reality on the ground, (location of bright spots and electrical meters, etc.) to provide realistic simulations in various application areas, and specifically with regard to waste management and street lighting. Once operational, the first prototype of this platform is expected to be extended to the whole Wilaya of Oran and to other provinces of the country.



IV. LED: A TEST OPERATION FOR LED STREET LIGHTING IN ORAN

New LED lighting technologies for public street lighting are promising. These give more light power, a lifecycle five to 10 times longer than other lamps, with particularly low power consumption. LED street lights ensure substantial energy savings, and put less strain on the power grid, especially during periods of overload.

R20 MED began preparing the installation of LED street lights for demonstration purposes. This operation is conducted in partnership with the Wilaya of Oran (Bir el Djir Wilaya), the company responsible for the maintenance of public lighting in Oran (ERMESO) and PHILIPS Maghreb. Parallel to this, the local authorities decided to modernise a number of locations in Oran using LED lights. The new city garden built by the Wilaya along the Oran coastline is now partly equipped with LED lighting.

V. ECO-CONSTRUCTION: THE SETTING UP OF A CENTRE FOR ECO-CONSTRUCTION PROMOTION IN ORAN

Following its creation in December 2014 by a decision of the Wali of Oran, the centre for eco-construction was officially established by the Director of the Environment of the Wilaya, Mr. Mohamed Mekkakia. Initiated by the Network of Maghreb Enterprises for the Environment, Batimatec and R20 MED, the centre aims to encourage opera-

tors and stakeholders of the construction sector to integrate measures for ecological and energy efficiency for buildings. The centre has three main missions:

1. Organise consultations between the various local actors and institutions, the local government and national public and private organizations;
2. Initiate and develop demonstration projects in the field of eco-construction, organize meetings, seminars and workshops on issues related to policy on energy efficiency for buildings; and
3. Provide opinions and make recommendations on all projects submitted by the Wali of Oran.

Algeria



Training 15 women in household recycling

VI. TRAINING & EDUCATION

Over 50% of R20 MED's activities are focused on training and education, aiming to organise one-to-two courses per month.

Training of staff to monitor waste sorting in Akid Lotfi

Youth were trained in view of their recruitment for the waste sorting operation. The recruitment process was organized in partnership with the Oran Department of the Environment, the Directorate of Employment and the municipal assembly of Oran (El Menzah Sector).

Peer facilitators training

To strengthen the implementation of the household waste sorting project, R20 MED trained peer educators on sorting, socio-cultural activities and eco-citizenship. After two courses organized in September and December 2014, a third training session was organized in spring 2015 for 20 participants: students, pupils and officials of the Wilaya.

Training of wholesale market agents

Training and information sessions were organised for the benefit of maintenance technicians in the wholesale market for fruit and vegetables of El Kerma, on subjects including waste management, recycling and composting. Tours were held regularly to monitor this. This activity was part of a partnership with the EPIC wholesale market of El Kerma.



Training of El-Ryad agents (Hasnaoui Group)

With a view to sharing experiences and expanding recycling to the city El-Ryad, and in partnership between R20 MED and the management body of the Hasnaoui Group, training on waste recycling was organised for some 30 technicians.

VII. R20 MED PARTICIPATION IN NATIONAL AND INTERNATIONAL EVENTS

- Mediterranean Workshop on *Energy Efficiency for Building in the Mediterranean*, with a focus on social housing (June 1 and 3, Marseille, France)
- *Energy Saving*, 2nd Conference on Energy and Environment (June 8-9, Algiers, Algeria)
- National Conference on *Sustainable Cities & Energy* (June 10, Algiers, Algeria)
- Preparation for COP21 - Participation in MEDCOP21 (June 4-5, Marseille, France)
- Preparation for COP21 - World Summit Climate & Territories (July 1-2, Lyon France)
- Paris Climate Conference 2015, COP21 (December 4-10, Paris, France)

REGIONS IN ACTION

West Africa

Mali



In October, R20 and Akuo Energy announced the signing of the contract between the Government of Mali and Akuo to install a 50MW photovoltaic solar power plant in Kita.

This contract follows the first agreement signed in March 2013, between R20 and the Government of Mali to work on renewable energy projects; and a second agreement was signed by Gov. Arnold Schwarzenegger (Founding Chair of R20) and Eric Scotto (CEO of Akuo Energy) in June 2013 in the presence of Manuel Barroso, former President of the European Commission.

The latter agreement was to conduct feasibility studies for the 50 MW solar PV project in Kita, Mali. These two initial agreements linking the government with the corporate sector and investors, have enabled the final approval and signing of the contract to launch the construction of the Kita solar power plant.

These agreements and contract now enable R20 and Akuo Energy, along with other developers, to scale up this type of project to the whole of West and Central Africa, deploying as much as 1 GW of solar energy, and thus responding to the goals of the United Nations Sustainable Energy for All (UNSE4All) agenda.

Nigeria



The R20 team assisted Delta State with promoting their Integrated Territorial Climate Plan (ITCP). This included fundraising efforts to replicate and scale up some of the successful pilot projects that were identified in the ITCP, such as household biogas digesters and household biosand water filters. The R20 team not only drafted funding proposals, but also created in-house marketing and communications materials, including biogas and water filter case studies. In addition to helping Delta State to promote their ITCP, the R20 team also made sure that Delta State joined the global Compact of States and Regions, making it the first Sub-Saharan African observer of the Compact. The Compact is a commitment by states and regions to set GHG reduction targets and to publicly report on those targets annually.

In line with R20's 2016 Nigeria strategy, the R20 team also branched out into other Nigerian states. So far, three additional states have requested an R20 inception mission for waste management and to conduct waste audits. These requests were turned into formal proposals and are currently awaiting approval by the respective governors. The R20 team was also in discussion with a major Nigerian bank (Bank of Industry - BOI) regarding the replication of successful R20 projects. To this end, a proposal was sent to BOI to replicate R20's solar bakery project (Burundi) in several Nigerian states, using a social entrepreneurship model. In addition, R20 was approached by a new Nigerian clean-

REGIONS IN ACTION

West & East Africa

Nigeria



tech company that is requesting R20's help to install tidal turbine projects in southern Nigeria. In order to make this happen, R20 has been in discussion with a French company called Hydrotube Energie, and plans to connect the two companies in order to bring the best tidal turbine technology to Nigeria.

Last, but not least, R20 has welcomed the Ogun State of Nigeria as an official new R20 member. R20 president, Michèle Sabban, first made the connection with Ogun State through an existing forestry project that is being sponsored by LafargeHolcim. The R20 team was instrumental in helping Ogun State and LafargeHolcim to present their project to an international audience this past December at the Cities and Regions Pavilion at COP21 in Paris. R20 will continue to explore other opportunities for Ogun State as 2016 unfolds.

In summary, R20 looks forward to following up on the aforementioned requests and to helping different Nigerian states build the green economy in 2016.

Burundi



In 2015, activities related to the solar bakery project in Burundi included presenting the Integrated Territorial Climate Plan concept for Gitega City and surroundings to the Gitega Governor and other local authorities, visiting other renewable energy pilot projects in Gitega City, and interviewing the women bakers on the impact of the solar bakery. The interviews were conducted successfully, and the beneficiary women provided positive feedback about the project. Key highlights include:

- A qualitative survey revealing that the bakers are generally much happier to be working in the bakery now that they are no longer exposed to harmful indoor smoke from using a wood-fired oven;
- The bakers also appreciate not having to walk long distances to collect firewood; and
- The bakers earn 30% more than they did when they worked as farm laborers during the temporary closure of the original bakery.

A significant amount of time was spent on the ground to collect project data. One of the deliverables produced for the fifth phase was a technical case study, including information on: implementation, technology, early results, challenges and solutions, conclusion, next steps. This case study can be presented to potential parties looking to replicate in other regions in the African continent.

Burundi



All reports (deliverables and financial) related to the mission were submitted to the [Energy and Environment Partnership of Southern and East Africa \(EEP S&EA\)](#), the organization funding the 24-month project. Due to local unrest in the country following the election of the President for a 3rd mandate, and various government officials fleeing the country, the EEP agreed to extend the existing contract between R2D and the Finnish Ministry of Foreign Affairs. The sixth phase of the project saw the completion of all project activities. The following was achieved:

1. Production of Final Integrated Climate Plan for Gitega City, integrating all feedback from the local stakeholders;
2. Workshop for South-South collaboration, with a goal to share best practices between Nigeria and Burundi;
3. Workshop to review findings from the business plan, to produce a social and financial impact leaflet for the renewable energy and climate finance conference; and
4. Promotional material for COP21.

The first activity produced the final version of the Integrated Territorial Climate Plan for Gitega City. New information was added to the plan:

- **The Hyogo Report:** Report on its progress on activities related to climate change under the Hyogo framework for action;
- **REDD Project:** Burundi's interest in becoming one of the countries in the REDD project of the Forest Carbon Partnership Facility;



- **Netherlands Embassy's 'Pitch & Bid':** Key focus areas that Burundi can count as climate contributions; and
- **INDC Mitigation:** Data gathered from the Intended Nationally Determined Contribution (INDC)/Burundi, 2015.

The second activity produced the *South-South Best Practices* report, which included:

1. Bakery Structure
2. The Villager Sun Oven
3. Impact
4. Key Learning

The third activity produced two documents outlining key experiences and guidelines from the project that can be used to replicate in other regions:

1. A step-by-step guide on how to implement a solar bakery;
2. A solar bakery business plan guide, with a one-page summary on key areas to focus on when implementing a solar bakery project.

The fourth activity produced a project fact sheet for COP21, highlighting the main elements of the solar bakery project: project description, technology description, project location, total project budget, project partners, and project impacts.

REGIONS IN ACTION

East & South Africa

Ethiopia



Following previous meetings between Pegasus Capital Advisors (R20 official Partner) and African Power Initiative Limited (API), a biofuel company, a meeting was held in July between R20 and the Minister of Environment of the Republic of Ethiopia.

R20 staff attended the meeting and formally introduced R20 to the Minister. Craig Cogut (Founder of Pegasus Capital Advisors), Marcos Bitew (founder of API) and the Ministry of Environment team were also present at the meeting. The Minister was keen to partner with R20 and an MoU was proposed to the Ministry of Environment and Forests (MEF) and the Ministry of Foreign Affairs (MFA) of Ethiopia. The objective of the MoU is to develop an action plan to build a green economy for the regions of Ethiopia. Discussions were held with the Ministry of Finance and Economic Corporation to clarify the financing of bankable projects. The Ministry of Environment is providing technical support to identify the first R20 projects that will be targeted, as agreed upon in the signed MoU.

Tanzania

R20 was invited to attend the [2nd Knowledge Exchange Forum \(KEF\)](#) that took place on December 3rd in Tanzania, organized by the Energy and Environment Partnership Programme (EEP) in Southern and East Africa. The main focus was on sharing experiences and knowledge between project developers, and to gain exposure to other EEP projects and the EEP team. R20 was invited in its capacity as project developer of the Burundi Solar Bakery project, funded by EEP. Jini Sebakunzi represented R20 and networked with other EEP project developers across the region, looking into opportunities to replicate the Solar Bakery project in Tanzania. After meeting with several potential local organizations identified as local partners, a replication project proposal was submitted to EEP in order to launch a similar project in Tanzania.

South Africa

Following the meeting in Dapeng (China) between the Mayor of Tshwane (political capital of South Africa) and the R20 Executive Director Christophe Nuttall, it was decided to explore opportunities for partnership between R20 and the municipality of Tshwane. Elisabeth Vosloo, R20's focal point for South Africa, met with the Mayor's cabinet to further explore prospects and discuss modalities for future cooperation.

Smart Cities Initiative

R20 and Seventh Generation Advisors (SGA) introduced their global network of partners, governments, companies, financial institutions, and academic institutions to the future of the Smart City. The process was launched with the city of Santa Monica (USA) and followed by the City of Vancouver (Canada) and other cities: Milan (Italy), Richards Bay (South Africa), Hermosa Beach, CA and Charlotte, N.C. (USA).

There is a tremendous opportunity for municipalities across the world to adopt sustainable, modern solutions to improve conditions for both the city and their citizens. Because this is a new trend, there is no definitive guide for a city to become “smart.” For this reason, R20 USA researched and analyzed solutions and case studies, and shared them with the appropriate stakeholders with the goal of developing real projects through R20’s global network. To assist cities, R20 works with city representatives to conduct an inventory (Smart City Survey) of current practices from which we can then identify potential avenues of collaboration.

In the second half of 2015, R20 USA entered a partnership with the [Global City Teams Challenge](#), a collaborative platform of the Internet of Things (IoT) action clusters led by US Ignite and the US National Institute of Sciences and Technology (NIST). This partnership aims to introduce smart and sustainable solutions to cities around the world by sharing best practices and advancing demonstration projects.

“Global City Teams Challenge is delighted to partner with R20,” said Sokwoo Rhee, associate director of Cyber-Physical Systems Program, NIST. **“We believe it is essential to bring the opportunity of the GCTC to the R20 network of partners and communities to identify and apply successful and sustainable solutions that best-fit their needs. I look forward to our collaboration with R20 in GCTC 2016.”**

By participating in the GCTC, R20 Smart Cities has an opportunity to showcase smart technology and leadership and access resources pro-

vided by GCTC’s corporate and government partners. To support the Smart Cities program, R20 USA has designed toolkits and packages that guide interested cities towards smarter development. The process is broken down into the following four steps:

1. Research and survey city practices and initiatives;
2. Analyze information by city sector;
3. Suggest key smart city projects for implementation; and
4. Assist the city in project development.

R20 is currently in dialogue with several cities about how to implement Smart Cities solutions.

Chicago Infrastructure Trust

R20 USA has been working closely with the city of Chicago’s *Infrastructure Trust* which was created in 2012 by executive order of Mayor Emanuel and the City Council resolution. The purpose of the Trust is to assist the people of Chicago, the City government and its sister agencies in providing alternative financing and project delivery options for transformative infrastructure projects. R20 is working with Trust officials on two projects: waste optimization and street lighting.

R20 waste experts created a proposal and spreadsheet, which outline potential solutions and scenarios to illustrate the value proposition of waste reduction and recycling in the city. R20 met with the Mayor and he confirmed the city’s commitment to developing a roadmap for the city to manage their waste.

In addition, R20 will be presenting the Department of Transportation and the Chicago Infrastructure Trust with innovative technologies on street lighting that we hope will be included in their future requests for proposals (the city has 250,000 streetlights).

Waste Tire Recycling

R20 USA is working with several US-based technology companies to develop projects in the Gulf of Mexico region and New York State, which can be models for all R20 regions.



Street Lighting

The Brazil LED streetlight retrofit project has made steady progress, with R20 Brazil's Country Director, Jorge Pinheiro Machado, working with over a dozen cities on retrofitting their streetlights to energy-saving LEDs. In December 2014, the Brazilian city of Nova Friburgo inaugurated our first pilot project to replace LEDs in the city – starting with Dermeval Barbosa Moreira square. The city's energy savings have reached 50%, and the cost of maintenance was cut by 40%. The project was a result of a partnership between R20, the State Department of Environment and the city of Nova Friburgo. **“We will soon be taking this initiative to the greatest possible number of municipalities”**, said Carlos Portinho, the State Secretary for the Environment.

As part of the project, R20 Brazil signed close to 70 MOUs with medium and small cities to study the feasibility for implementing R20's model. The process involved identifying potential suppliers adapted to the Brazilian market, and able to provide affordable technology, in order to secure feasibility. On the financing side, discussions were held with development banks in order to satisfy every stakeholder involved in the project. The negotiations are expected to conclude in 2016, followed by full implementation of the project in Brazil, and possibly extending the model to Argentina.

Details of the R20 financial instruments enabling the LED street lighting project in Brazilian cities

In 2013, R20 invested \$500,000 in philanthropic funds to the LED lamp energy efficiency project in Brazil. This amount was used to:

- Provide LED training to municipal managers and establish the lighting inventory of the cities to assess their potential to switch to LED;
- Invite LED manufacturers to Brazil to set up production in the country;
- Negotiate with the main electricity supplier and the municipality to test and approve new LED products; and
- Identify an interested member of the R20 Green Finance Network (GFN), and structure a Special Purpose Vehicle (SPV), which will provide a US\$ 500 million revolving loan fund to 13 cities to retrofit 1.5 million lamps. With the SPV, cities borrow money to replace lamps and repay the SPV through energy and maintenance savings.

With 5,600 cities in Brazil, this plan is expected to grow well beyond the initial investment. The model can be replicated in other countries, so that every US\$ 1 invested by R20 unblocks US\$ 500,000 in the SPV, and could unlock billions if the program is replicated.

Clean River Program

This new project is developed by R20 Brazil following the signing of an MOU with the municipality of Caceres in the state of Mato Grosso.

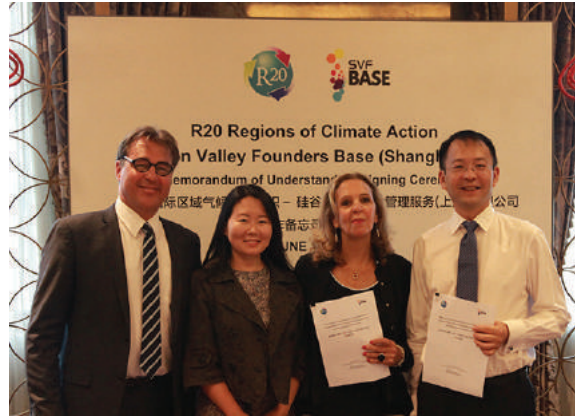
The municipality is still not equipped with a sewage collection and treatment system, and is keen to use the [“float flux” technology](#) to clean the three small rivers of the city. This initiative is crucial to contributing to the maintenance of the Pantanal environment, and uses a Brazilian technology which is tailored to the Brazilian situation and needs.



Reforestation Project

The state of Sao Paulo solicited R20's help in implementing the Nascentes Project, a reforestation initiative for the borders of the rivers and springs of the state of Sao Paulo. R20 entered into a partnership with [FUNBIO](#), signing an MOU during COP21 and subsequently presenting the project to the state of Sao Paulo. The primary objective is to reforest 10,000 ha in the next five years, with each hectare holding 1.6 thousand trees. The total project amount is approx. US\$ 50 million. Project planning established 10 lots of 1,000 hectares and for each lot a minimum of eight months for implementation. In 2016 the project could be extended to the state of Mato Grosso. Following approval by Sao Paulo, R20 will be responsible for project fundraising and Funbio will be responsible for implementation. R20's fundraising strategy involves holding three main events; which have been programmed and approved: Palo Alto (California), Berlin (Germany) and London (UK).

China



Dapeng New District, China

Following the signing of the contract in December 2014, R20 worked on operational and project planning for the Dapeng New District in Shenzhen. Throughout 2015, R20 collaborated closely with the Dapeng local government on an integrated municipal solid waste management project, in partnership with Swiss engineering company, Energy8. Since the completion of data collection activities on landfills, construction and demolition waste, organic waste, as well as household waste, R20 and Energy8 have been drafting a pre-feasibility study. The study provides an analysis of the current municipal waste situation in Dapeng, as well as opportunities for improvement. Towards the end of 2015, R20 started working on feasibility studies for three projects generated from the pre-feasibility study.

During her keynote speech at the Third Shenzhen International Low-Carbon City Forum in Shenzhen (China) on June 18th, R20's President Michèle Sabban urged China to make strong commitments to curb greenhouse gas emissions ahead of the UN Climate Conference (COP21) in Paris. The event gathered high-level officials from the China National Development and Reform Commission, leading private sector CEOs, local and international mayors, as well as other global economy stakeholders, to discuss and showcase means of achieving a low-carbon future in China.

In June, in China, R20 signed an MOU with the Silicon Valley Founders Base (Shanghai), Inc. The collaboration will establish a *Low-Carbon Incubator* in China, consisting of a full value chain of best technologies and engineering companies that can provide solutions for Chinese cities and abroad, to make the existing technologies and engineering more cost-effective and feasible for large-scale deployment worldwide. The collaboration will also target the *One Belt, One Road* Chinese national strategy to develop projects within the *Silk Road Economic Belt* and *Maritime Silk Road*, as well as to supply projects for Asia Infrastructure Investment Banks.



The Candlenut Biodiesel program that was initiated in 2013 is now fully up and running - with a first plantation covering 38,000 Ha that will begin producing biodiesel in 2019. The program is designed to provide a clean and renewable alternative fuel that emits 85% less CO₂ than fossil fuels, is not a food crop and is non-toxic.

“The R20 model for the candlenut program is suitable for the region. Since candlenut cultivation does not require land clearing, the existing 9 million Ha of forest will be preserved. The program will also be beneficial for the local economy as labour will be needed to tend to the plantations”, said Governor Cornelis of West Kalimantan.

Governor Cornelis has allocated a total of 120,000 Ha of land spread over 12 kabupaten (regencies) to the program. According to the technical assessment, said Nico Barito (Director of R20 Asia Pacific), one hectare will produce 85 barrels of biodiesel a year. **“We are looking at 10.2M barrels of biodiesel per annum over the next 10 years and onwards.”**

The candlenut biodiesel project is a collaborative initiative by R20 Indonesia headed by Nico Barito, Governor Cornelis of West Kalimantan, as well as the Minister of Environment & Forestry and the Minister of Energy & Mineral Resources of Indonesia. Visit the [R20 INDONESIA website](#) to find out more about the project and its benefits.

FINANCE IN ACTION



THE CITIES CLIMATE FINANCE LEADERSHIP ALLIANCE (CCFLA)

The Cities Climate Finance Leadership Alliance (CCFLA) is a coalition of over 40 public and private banks, national and city governments and civil society organizations launched by UN Secretary-General Ban Ki-moon at the Climate Summit he convened in September 2014. The aim of the Alliance is to accelerate investment in low-emission, climate-resilient infrastructure in cities, and to close the investment gap in urban areas over the next fifteen years. The new secretariat for the CCFLA was announced during COP21 “Cities Day” by Gov. Schwarzenegger, the R20 Founding Chair. As of January 2016, the Alliance will be managed by a coalition of organizations including R20, the UN Environment Programme (UNEP), the UN Development Programme (UNDP) and the Global Fund for Cities Development -- Fonds mondial pour le développement des villes (FMDV).

The Alliance recently issued its first report, *The State of City Climate Finance*, which identifies policies and measures to mobilize investment in climate-smart infrastructure for cities. It was launched by the UN Secretary-General and other Alliance members, plus the Mayors of Johannesburg, Rio de Janeiro and Ulan Bator, at the Climate Summit for Local Leaders at Paris City Hall on December 4th 2015. Following the CCFLA transfer to Geneva, the alliance members are working on a plan to help translate the report recommendations into action. Regional investor meetings organized by CCFLA in Johannesburg and Bangkok during 23-27 November contributed suggestions on practical steps forward to boost investment in climate action in cities.

THE R20 PRE-INVESTMENT FACILITY (PIF): EFFICIENTLY FILLING THE GREEN DEAL PIPELINE

R20 has established a PIF to provide investors with bankable, low-carbon economic-development projects at scale with superior risk-adjusted returns to ensure that “trillions not billions” are moving into the green economy. It is structured as a revolving loan fund with seed capital for design, development, and due diligence of projects where success or transaction fees from completed projects replenish the R20 PIF so it can continue funding new feasibility studies and project plans. Given the success of R20’s hands-on model, the small capital infusion in the pre-investment phases unlock billions of dollars of project capital for development projects. R20 therefore created the PIF Fund with the following characteristics:

- Fund size: \$10m (USD)
- Fund Source: Program Related Investment (“PRI”)
- Target ROI: 5% IRR after 10 years
- GHG Reductions: Priority given to projects that provide the most GHG reductions per dollar invested by the PIF Fund over the shortest timeframe.
- Fund Type: Revolving (funds deployed as described below; returned from success fees on completed projects to re-deploy after repayment of initial PRI).

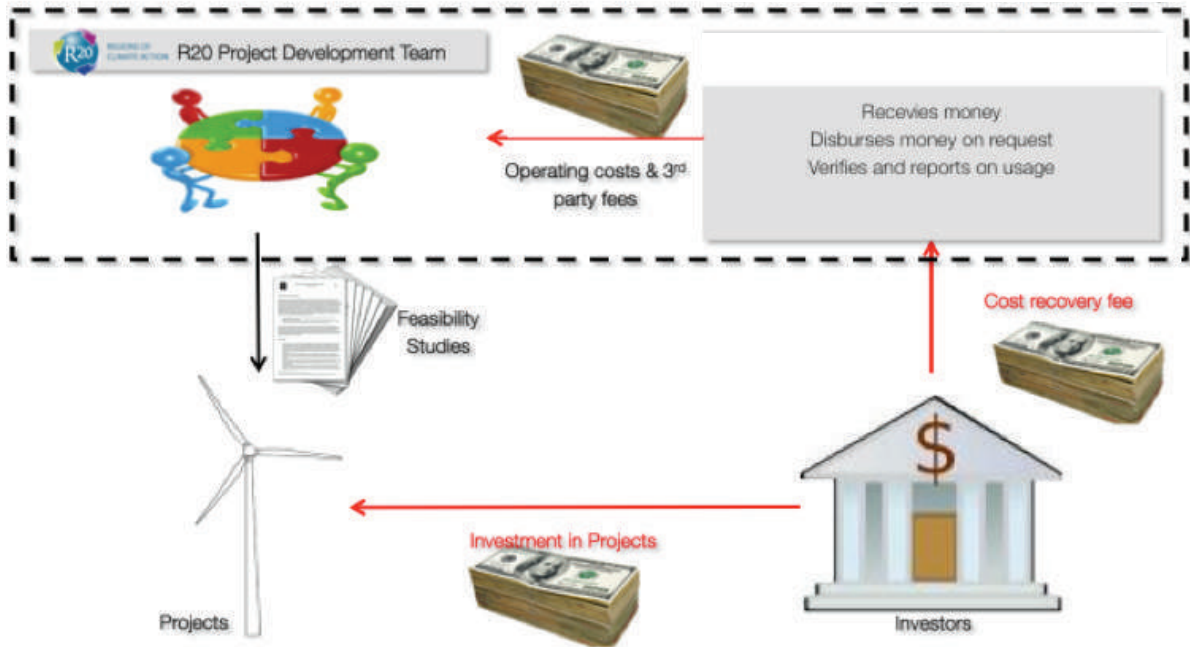
Project Types & Target Geographical Distribution:

- Energy efficiency: streetlight retrofits based on Brazil model; Central & South America.
- Renewable energy: solar energy based on Mali model; West/Central regions of Africa.
- Waste reduction: zero-waste campus projects based on Algerian model; Bahrain; Asia and North America.

The target geographies listed reflect where R20 has staff and inquiries from current government members, however it is not meant to be an exhaustive list. The goal is to find projects that meet our criteria and can be implemented as quickly as possible, which creates reference projects for

FINANCE IN ACTION

R20 Pre-Investment Facility



Project development team: will identify projects, prepare feasibility studies

Investors: will invest in projects and pay a cost-recovery fee to the R20 Trust Account

R20 Trust Account: will provide good governance and transparency in use of funds, it will receive cost-recovery fees and will pay operating costs of the project development team

subsequent jurisdictions that may take longer to design and permit.

The R20 Pre-Investment Facility: Highlights of Results to Date

- Africa: First 50 MW solar PV structure ready for implementation, leading to a 1 GW renewable energy initiative.
- Brazil: \$500m special purpose finance vehicle with utility giant, Eletrobras, to retrofit 1.5 million streetlights with LEDs across 13 cities.
- Algeria: Zero-Waste expertise leading to a Zero-Waste Campus to convert 90% of waste (now going to landfills) to resources and products.

- China: Zero-Waste Initiative is now leading to an Asian Zero-Waste Campus in Shenzhen.

Example of Pre-Investment Facility: 1GW Renewable Energy for West and Central Africa

During 2015, R20 completed the structuring of the Pre-Investment Facility for the 1GW solar energy initiative in West and Central Africa, raising funds to finance the set-up of this platform. The platform has started operations working on the development of the first project, the 50MW project in Kita, Mali. R20's "1GW Renewable Energy for Africa Initiative" (PIF of Initiative) aims to bring 1GW of renewable energy capacity to countries across the West and Central African region by identifying, preparing and arranging the financing of bankable renewable energy projects. The Initiative consists of a project de-

FINANCE IN ACTION

development team based in Senegal, and a Trust Account, administered by the United Nations, to manage the flow of money that will finance the team's activities.

The team of African experts has a track record in renewable energy project development, grid connection and operation. The team will develop projects with the support of technical and industrial partners (project developers, equipment suppliers etc.) and will arrange for their investment with the support of investors. Partners will be selected by a transparent, and whenever possible, by a competitive process.

R20 will take a cost-recovery fee from investors in projects that will replenish the Trust Account to pay the ongoing expenses of the project development team. The Initiative is therefore financially self-sufficient (evergreen) and is expected to mobilise at least US\$ 1.7 billion in project finance and enable the avoidance of more than 6 million tonnes of carbon.

CLIMATE FINANCE ADVISORY COMMITTEE (CFAC): Mandate for Climate Finance: A Status Report and Action Plan

The mandate for R20's Climate Finance Report and Action Plan came as a result of a meeting in late 2014 between R20 Founding Chairman Gov. Schwarzenegger, French President Francois Hollande, French Foreign Minister Laurent Fabius, and policy experts from France and R20. President Hollande identified climate finance (and the gap between need and committed resources) as a critical element to a new, meaningful global agreement at COP21.

R20 therefore pledged to the President to establish a Climate Finance Advisory Committee (CFAC) to address these climate finance gaps by:

- Creating a comprehensive database of existing public and private climate finance efforts around the world, including an evalua-

tion of the results of such initiatives;

- Evaluating national GHG-reduction goals (and subnational programs that can support such national goals) and related development projects, and the attendant finance that will be needed to achieve such goals;
- Establishing a mechanism to identify and align (and match/leverage) donors and investors from all sources within realistic timelines for capital infusions equal to those national aspirations; and
- Highlighting the finance gaps and barriers to securing those missing resources.

The CFAC will work to address the identified gaps by:

- Designing "Best/Fastest Available" approaches to new funds and project development mechanisms, and by working with innovative developers and de-risking mechanisms;
- Working to open existing green funds to regional government projects and needs; and
- Sharing information through co-hosting conferences, work groups, events, and sharing results of this effort online.

The initial findings and recommendations related to this mandate are included in R20's Report and Action Plan, which is also serving as the basis for implementation of climate finance solutions after COP21.

GLOBAL INITIATIVES

THE “FAITHFUL CITIES” PROGRAM

The partnership between R20 and the Alliance of Religions and Conservation (ARC) launched the “Faithful Cities” initiative, which aims to promote and develop the greening of pilgrimage cities of the spiritual world. Given that over 300 million pilgrims travel each year to various cities around the world, making such destinations influential and touristic, R20 believes that such an initiative can have a major impact. The initiative seeks to mobilize religious and spiritual leaders across all faiths, to call on their believers to lead environmentally healthy lives and limit their own carbon footprints. The initiative seeks to establish a long-term program to turn holy cities into eco-cities.

The Faithful Cities program (formerly Green Faith in Action) was launched in Paris during the Summit of Conscience (July 21, 2015) to design, develop and implement low-carbon and climate-resilient infrastructure within these cities, as a spiritual demonstration of the commitment of religious institutions, faith and spiritual organisations. Potential projects include: waste management, biological sanitation, renewable energy, energy efficiency (LED street lighting, energy positive buildings), e-mobility, organic food and reducing food waste, access to water, etc. Targeted beneficiary cities include Amritsar, Bodhgaya, Gaya City, Varanasi (India), Makkah & Medina (Saudi Arabia), Touba (Senegal), Lourdes (France), Fatima (Portugal), Aparecida (Brazil).

The program is implemented by a consortium of three partners: R20, ARC (a UK-based foundation working on awareness, education and projects among religious and faith institutions), SUSTAINIA (Danish sustainability think tank), with political support from the Prince Albert II of Monaco Foundation, established in Monaco by H.S.H. Prince Albert of Monaco, aimed at developing an ecological campaign to implement and support concrete projects.

The Global Green Group (GGG), representing the interests of a number of private investors, has pledged USD 10.3 million to the program, an R20 instrument that will manage and deploy funds to develop low-carbon projects worth USD

1 billion, in targeted pilgrimage cities around the world. A technical agreement was signed in Monaco on June 29th by the R20 Executive Director and Mr. Parthiv Balsari (representing GGG) in the presence of H.E. Bertrand Fautrier representing the Prince Albert II of Monaco Foundation.

R20 and its partners will identify, design, structure and implement low-carbon and climate-resilient infrastructure projects. In order to do so, inception missions will be conducted in each city, aiming to:

1. Assess and understand the needs expressed by local and religious authorities and civil society representatives;
2. Agree upon immediate project opportunities, medium-term bankable projects and long-term investment projects; and
3. Obtain the alignment and commitment of all relevant parties, be they religious leaders, political decisions makers, representatives of civil society, technology holders, or investors, etc.

Based on gathered data and upon request, a Sustainable City Master Plan will be developed for each city, including project feasibility studies, taking into account all social, environmental and economic impacts, in order to reduce technical, economic and financial risks. The Master Plan and project structuring will be followed by project financing and implementation. The consortium expects to implement at least five infrastructure projects in each pilgrimage city in the next five years. Approximate costs for each project (CAPEX) are estimated between USD 5M and USD 50M.

GLOBAL INITIATIVES

R20 FUND FOR WOMEN IN THE GREEN ECONOMY



In agreement with the outcomes of the UN climate change conferences, including Rio+20, and in line with Women's Empowerment Principles, as well as the Solution's Agenda for COP21, R20 proposed the establishment of a Fund for Women in the Green Economy aimed at providing financial support in the form of grants to businesses, start-ups and small and medium size enterprises led by women, world-wide. The objectives of the R20 Fund for Women are to:

- Support low-carbon projects led by women (developed as private businesses and enterprises), which contribute to advancing the role of women in the green economy;
- Support projects led by women (developed as private businesses and enterprises) aimed at creating new green jobs and expanding the green economy markets;
- Support women entrepreneurs who want to deliver pro-green products and services that improve the community's quality of life, health, access to energy, etc.;
- Build women's political, technical and financial capacities and strengthen their green entrepreneurship in response to current climate challenges;
- Raise awareness about the challenges and opportunities of the green economy from a gender perspective, and about the solutions

to be achieved through women's empowerment and entrepreneurship.

Selected projects must demonstrate women's capacities to become leaders in sustainability and/or the decarbonisation of human activity. The Fund will assign grants ranging from US\$ 25-100K to women entrepreneurs who have submitted their proposals.

President Michèle Sabban has been actively advocating the initiative, obtaining political support from high-level figures such as Mary Robinson, the UN Special Envoy for Climate Change, Anne Hidalgo, Mayor of Paris, and Laurence Tubiana, the French Ambassador for international climate negotiations, responsible for COP21. In Africa, Michèle Sabban secured support from the Ministers of Environment of Morocco and Ivory Coast, while in China she discussed options for organizing a major fundraising event in Shanghai, with support from Silicon Valley Founders Base (Shanghai) Inc.

GLOBAL INITIATIVES

THE COMPACT OF STATES AND REGIONS

The Compact of States and Regions represents a commitment by global state and regional government networks, including nrg4SD, R20 and The Climate Group, and CDP, to provide an annual assessment of the commitments (i.e. GHG reduction targets) and progress towards those commitments (i.e. GHG inventory data) made by state and regional governments around the world to support international climate governance processes. The assessment will include two components that partners believe will provide increased clarity on the current contributions being made by global state and regional governments:

- A single account of greenhouse gas (GHG) reduction targets made by participating state and regional governments; and
- GHG emissions data for all participating governments, reported annually to the Compact in order to assess progress towards stated targets, and standardized in order to enable comparability across regions.

While the Compact will collect a standard set of GHG data, it will not endeavor to create a common methodology for collecting and reporting this data, instead recognizing the various methodologies currently being used by participating governments around the world.

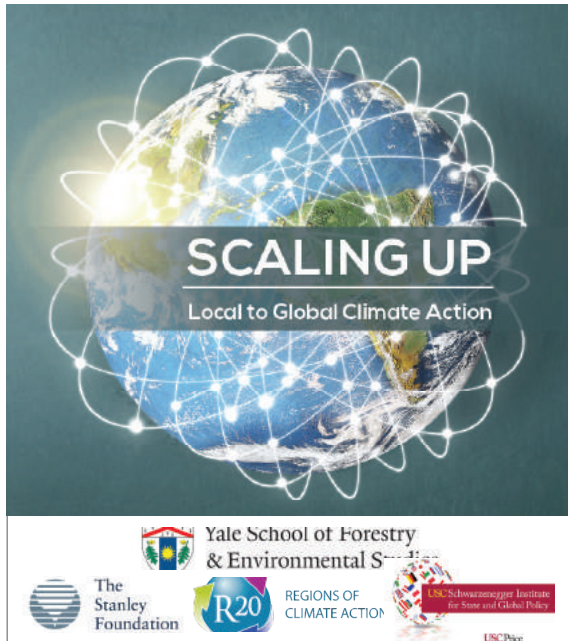
In September, R20 announced that one of its most active members, the Delta State of Nigeria, is one of the first Observers to join the Compact from Sub-Saharan Africa. By joining the Compact as an observer, Delta State will have two years to develop and publically announce their GHG emissions target and to build a GHG inventory.

Dr. Ifeanyi Okowa, Executive Governor of Delta State, said: **“On behalf of the people of Delta State, I want to congratulate the Compact of States and Regions for the unparalleled drive in emission reduction. With the assistance of R20, our State has been able to establish projects focused on climate change mitigation and adaptation and creation of green jobs in line with the SMART agenda of my Administration.”**

The governments which have so far signed up to the Compact represent over 10% of GDP and 220 million people. The plans, which will be achieved through a combination of measures including renewable energy and energy efficiency programs, will:

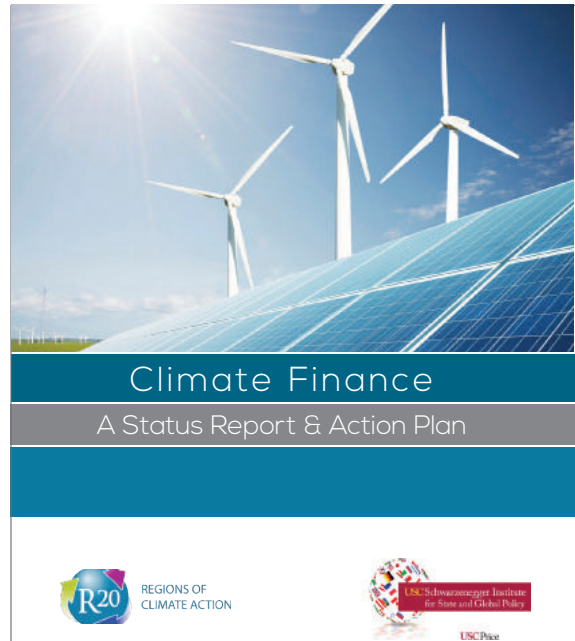
- Cut emissions by 2 GtCO₂e by 2020 relative to business-as-usual; and
- Cut emissions by 7.9 GtCO₂e by 2030.

PUBLICATIONS



“Scaling Up - Local to Global Climate Action”

R20 collaborated with Yale University, the Stanley Foundation and the USC Schwarzenegger Institute, to create a report entitled “Scaling Up - Local to Global Climate Action” which provides examples of states/regions/cities that have taken measures to cut GHG emissions and show that when scaled up nation-wide, such actions can achieve ambitious national reduction targets. The report demonstrates the potential for subnational action to contribute towards, and raise the ambition of, national climate efforts. The report compiles nine in-depth case studies of subnational climate mitigation programs that exceed or lead national policy directives. From California to Rajasthan, India, these case studies reveal a range of local partnerships that exhibit strong climate leadership. The report was launched at COP21 in Paris during “Cities Day”, and is available [here](#) to share and use as a tool to highlight the impact of subnational action.



“Climate Finance: A Status Report and Action Plan”

R20 and USC Schwarzenegger Institute launched “Climate Finance: A Status Report and Action Plan” at COP21 in Paris. The Climate Finance report offers a comprehensive roadmap to effectively tackle the climate finance challenge. It provides examples of supportive governments in various regions around the world (at the subnational and national level); mature low-carbon technologies; and substantial amounts of capital, and also points out that intermediaries are needed to align interests and develop projects. The Report concludes by proposing concrete solutions and will also serve as the basis for the implementation of climate finance solutions post-COP21. It can be accessed [here](#). In addition, the report was chosen by Big Path Capital as one of the “Top 10 smartest reports on the intersection of climate change and finance”. It was featured in The SmarterMoney Review Winter issue, a special edition featuring articles by well-known leaders within the impact investing community.

PUBLICATIONS

“Transition Through Innovation: How Innovation can contribute to building a low carbon economy at an affordable cost”

The “Transition Through Innovation” report was commissioned by R20, and drafted by Corporate Value Associates and Observatoire du Long Terme. The report lists affordable green innovations “covering all sectors, regions and types of companies”, and provides policy recommendations. To access the report please [click here](#).

R20 CASE STUDIES

R20 developed and published four case studies detailing the Biosand Water Filter and Biogas Digester projects in Nigeria, the Integrated Solid Waste Management project in Oran, Algeria, and the Burundi Solar Bakery project. To access the case studies [click here](#).



CHAPTER III:
PARIS CLIMATE CONFERENCE 2015
COP21

COP21



Cities and Regions Pavilion – Transformative Actions Program (TAP) 2015 at COP21

R20 actively participated in the Cities and Regions Pavilion – TAP2015 at COP21, at Paris-Le Bourget, France, partnering with ICLEI for the event. The Pavilion, managed by ICLEI, was the headquarters for the Transformative Actions Program (TAP) – a long-term action plan which aims to support investments in urban areas and contribute to the elaboration of new finance mechanisms for climate actions led by local and subnational governments.

In all his speeches in Paris, whether in front of the COP21 negotiators, at the “cities day”, or at the French National Assembly, Gov. Arnold Schwarzenegger clearly highlighted the power of subnational governments and their crucial role in reducing emissions and in taking bold decisions to build the clean energy future. At the closing of COP21 on December 12th, as the world saluted the adoption of the Paris Climate Agreement, a new era opened for subnationals, with even higher expectations for the delivery of concrete, sustainable solutions.

COP21 HIGHLIGHTS

COP21: Governor Arnold Schwarzenegger launched two global reports on climate financing

On December 5th, Gov. Schwarzenegger, Yale University, and the Stanley Foundation, in collaboration with R20 and USC Schwarzenegger Institute, released [Scaling Up: From Local to Global Climate Action](#) (previously summarized).

“I have always said that our states, provinces, and cities are where the action is. We proved it in California and many of our policies have been adopted by our federal government. This report proves the value of sub-national governments all over the world taking action and not waiting for their national leaders or international institutions to help us solve the world’s most pressing challenge - - climate change,” declared Gov. Arnold Schwarzenegger.

In concert with this report, R20 and the USC Schwarzenegger Institute also released [Climate Finance: A Status Report and Action Plan](#) (also summarized previously) which gives tangible, concrete examples of how to expedite the transition to a low-carbon economy based on proven technologies and projects all over the world, such as those described in “Scaling Up”.

COP21



COP21: Governor Arnold Schwarzenegger’s address before the French National Assembly and the Inter-Parliamentary Union

Gov. Arnold Schwarzenegger gave a keynote speech at the French National Assembly, addressing over 600 parliamentarians and parliamentary officials at a joint IPU-French Parliament meeting. Setting a new track in efforts to harness global political action, highlighting the important role of subnational leadership, Gov. Schwarzenegger stressed the need to mobilize parliamentary action on climate change to help deliver results.

On this occasion, Gov. Schwarzenegger signed an agreement between IPU, R20 and the USC Schwarzenegger Institute for State and Global Policy, launching a joint plan of action that will strengthen parliaments’ capacities and abilities to tackle the growing threat of climate change. Project initiatives will include raising awareness among parliamentarians to the challenge of climate change and building cross-party support for action, including legislation and overseeing the implementation of international and national commitments to reducing greenhouse gas emissions. IPU, R20 and the USC Schwarzenegger Institute will also work together to boost parliamentary input into global processes such as the Paris Climate Agreement, the Sustainable Development Goals, the Sendai Framework for Disaster Risk Reduction.

COP21: Governor Arnold Schwarzenegger’s address before the UN climate negotiators

On December 7th, Gov. Arnold Schwarzenegger addressed the negotiators at the high-level ministerial meeting at COP 21, during the Austrian speaking slot. Gov. Schwarzenegger, an ardent advocate for the empowerment of subnational governments in tackling climate change, emphasized the crucial role that cities and regions play in advancing the low-carbon economy. **“No matter what you (negotiators) do, do not forget the power of subnational governments. 70% of emissions can be controlled with state and local policies. Cities and states hold tremendous power and we must never forget it,”** said Gov. Schwarzenegger.

Recognizing subnational action in the climate deal will ensure that local governments are given the support they need to implement their climate change mitigation plans, and that national emissions targets are met. According to Scaling Up: Local to Global Climate Action, the new report released at COP21: “Rajasthan’s installed solar capacity is the largest among all the states in India, accounting for more than one-quarter of the country’s total. If Rajasthan’s rate of solar energy expansion were scaled to the national level, India’s carbon dioxide emissions would decrease by approximately 19 percent of the nation’s total carbon dioxide emissions in 2012.”

COP21



COP21: Governor Schwarzenegger addresses students at Sciences Po University

On the evening of December 7th, in an address to the faculty and students of Sciences Po, France's leading political science institute, Gov. Schwarzenegger called on climate communicators to shift awareness raising efforts away from spelling future doomsday scenarios, to present-day dangers that are affecting humanity now. **"We are wired through thousands of years of evolution to focus on the here and now on survival. Our over-use of fossil fuels impacts us right now. The fumes from dirty energy are killing us. We cannot accept 7 million premature deaths every year with a clear conscience. We want to be cutting edge. We know that a green economy is a growing and smart economy. That's the story we have to tell,"** stated Gov. Schwarzenegger.

R20 General Assembly meeting

On December 7th, R20 held its Governing Board and General Assembly meetings at its new R20 Paris office in Champs Elysees. The meetings, presided by R20 President Michèle Sabban, gathered over 30 R20 members and partners coming from regions around the world. The Governing Board and General Assembly members unanimously re-elected Ms Sabban as President of R20.

R20 Executive Director Christophe Nuttall used these examples to demonstrate R20's successful business model over the past three years of bringing together decision makers, technical expertise, financial partners and investors,



thereby enabling the deployment of projects on the ground. In particular, Dr. Nuttall highlighted R20's ability to leverage millions of dollars for investments in projects, first by using seed funding to build Pre-Investment Facilities, which in turn provide funding for project development, and then by attracting the appropriate investments to implement the projects. Over the next five years, R20 will harness its resources to scale up the projects through its Green Investment Accelerator Fund, that will deploy billions of US dollars in investments.

The event was a great opportunity to hear the latest news from the R20 affiliate offices in Algeria and Brazil, which were represented by the Governor of Mato Grosso, Jose Pedro Goncalves Taques, and the Wali of Oran, Abdelghani Zaalane; respectively Vice Presidents for Latin America and North Africa on the R20 Board. Both spoke of R20's accomplishments in their regions and expressed their wish to expand the on-going energy efficiency and waste management projects.

Positive results were also reported by Aboubacar Savadogo, former President of the Northern Regions of Burkina Faso, R20 China Director Yufu Cheng, and Eric Scotto, CEO of Akuo Energy, who introduced the 50Mw solar power plant in Kita Mali.

Terry Tamminen, Strategic Advisor to R20's Founding Chair, Gov. Schwarzenegger, presented R20's work on financing, especially through the publication of two major reports: *Scaling Up: Local to Global Climate Action* and *Climate Finance: A Status Report & Action Plan*.

COP21



“Cities Day” at UN Climate Conference

On December 9th, at an event marking “cities day”, Gov. Schwarzenegger greeted all subnational officials present before citing best practice examples from California and around the world. He described R20’s role as an action-oriented organization that links subnational governments, technology companies and the finance sector. He underscored the importance of working together, welcoming the partnership between subnational governments and initiatives launched by the UN, citing the Under 2 MOU, the Compact of Mayors and the Cities Climate Finance Leadership Alliance (CCFLA).

“Many cities and states are thriving, and are leading the march towards a smart and clean energy future,” said Gov. Schwarzenegger. **“Subnational governments hold tremendous power. We are the perfect laboratories of reform for the larger/slower national governments. Cities, states and provinces provide a launchpad for the most innovative green energy policies. When we succeed, we provide a blueprint to the rest of the world.”**

Meeting with Christiana Figueres

On December 8th, Gov. Schwarzenegger had a private meeting with Christiana Figueres, Executive Secretary of the UNFCCC, to discuss the current status of the climate negotiations. Gov. Schwarzenegger informed her of his participation at the French National Assembly held in partnership with the Inter-Parliamentary Union (IPU) on Saturday 5th, his speech to students at



Sciences PO on Monday 7th, and his speech at the ministerial plenary session.

They both agreed that communication to the public and media about climate change should be broken down into simple messages for actions that people can understand and easily apply, in order for all citizens to adhere to this “green crusade”.

Meeting with French Prime Minister Manuel Valls

On December 8th, Gov. Schwarzenegger’s delegation, Michèle Sabban (R20 President), Terry Tamminen (R20 Strategic Advisor), Bonnie Reiss (USC Schwarzenegger Institute Director), and Craig Cogut (private investor) met French Prime Minister Manuel Valls at the Hotel de Matignon (PM’s office) to present the two white papers mentioned above. The Prime Minister praised the papers for revealing effective means of mobilizing public private financing for subnational climate action.

Meeting with Laurent Fabius, Minister of Foreign Affairs, France

During the high-level meeting held on December 8th, Gov. Schwarzenegger reassured that subnational governments will support and lead the deployment of green infrastructure projects in order to implement the intergovernmental agreement on climate change mitigation. He added that 70% of actions are taken at the local level. He emphasized the role of subnational governments not as being opponents or alternatives to national authorities, but rather as complementa-

COP21



ry stakeholders who are well placed to identify, design and deploy projects.

R20's new publications were presented to Minister Fabius: *Scaling Up - Local to Global Climate Action and Climate Finance: a Status Report & Action Plan*. Minister Fabius fully agreed that public policies and funds could unleash much larger private funding from a wide variety of finance institutions and private investors.

Egis and R20 sign a partnership agreement for sustainable waste management

On December 5th, R20 signed an agreement with the international consulting and engineering firm, Egis, a branch of the Caisse des Dépôts et Consignations (CDC), to create a Pre-Investment Fund (PIF) for waste management projects. The Fund will support the different actors of sustainable waste management (national and local governments, industry and investors) in their decision-making processes necessary to implementing infrastructure projects. The signing took place in the presence of Christophe Nuttall, Executive Director of R20, Terry Tammimen, Strategic Advisor to R20, Pierre-René Lemas, CEO of CDC, and Nicolas Jachiet, CEO of Egis. In parallel with the COP 21 agreement, this partnership focuses on developing waste-to-energy projects in emerging countries. The pre-investment funds will enable Egis and R20 to bring to maturity the waste management market in emerging and developing countries.

To this end, the PIF will finance two important initiatives:

1. **A training program for national and local waste management decision makers.** The program will focus on three critical decision-making areas:

- Public policies needed for waste management;
- Existing technologies on the market today;
- Economic models and financial mechanisms necessary for the sustainability of a waste management project.

2. **Feasibility studies in the cities considered mature**, to identify, develop, and structure projects that are likely to achieve the objectives in the eyes of public and private investors. The joint experiences of the two partners in waste treatment projects (Algeria, Maldives, Morocco, China), reveal that R20 and Egis share not only the same approach, vision and goals, but also the same values regarding economic opportunities yielded by waste management: promoting social values, active participation of the population, creation of direct and indirect jobs, and safeguarding the environment (particularly through sorting, recycling and energy cogeneration). This approach is part of the long-term commitment of the Caisse des Dépôts et Consignations.

COP21



R20 signed an agreement with INESA / Feilo for 1 billion LEDs

A new agreement was signed between Ms. Sabban and Ms. Linyu Wang, President of Hawaii LED LLC, representing Feilo Acoustics Ltd, to establish an R20 Pre-Investment Facility for the installation of one billion LED streetlights in hundreds of cities across the world.



New R20 Member: Ogun State, Nigeria

On December 8th, R20 announced that Ogun State joined R20 as a Member. Ogun State's work is a great example of subnational commitment and climate leadership - one that is driven by collaboration between local governments, the technology and finance sectors. Senator Ibikunle Amosun (Governor of Ogun State) and Christophe Nuttall (R20 Executive Director) signed the Memorandum of Understanding during a ceremony held at the Cities and Regions Pavilion.

CHAPTER IV:
EVENTS IN 2015

EVENTS IN 2015



Delhi Sustainable Development Summit (DSDS), 5-7 February in New Delhi

R20 played a key role in the Delhi Sustainable Development Summit, with R20 Founding Chair, Gov. Arnold Schwarzenegger, giving a keynote speech, pointing to several examples of successful actions that have already been led by local governments to mitigate climate change. The summit organized by TERI, headed by Nobel laureate Dr R.K. Pachauri, drew together representatives from over 35 countries as well as high-level corporate executives to address climate change and identify solutions. Among the dignitaries were Laurent Fabius (French Minister of Foreign Affairs), Mary Robinson (UN Special Envoy for Climate Change), Paul Polman (CEO of Unilever).

51st Munich Security Conference, 6-8 February

The 51st Munich Security Conference welcomed Gov. Schwarzenegger, who called on leaders to do more against climate change. Over 400 renowned decision-makers in international politics, including about 20 heads of state and government, and more than 60 foreign and defense ministers came together at the Munich Conference to discuss current and future issues in foreign and security policy. The conference, which debuted in 1963, continues to be a platform for heads of state and policymakers to address “the most pressing security issues of the day”.

University of Southern California Environmental Student Assembly, February 18, Los Angeles

Gov. Schwarzenegger attended the University of Southern California Environmental Student Assembly where he delivered a powerful speech to over 500 students. **“The environment isn’t a political issue. It’s a people issue. There isn’t conservative air or liberal air and water - we all breathe the same air and drink the same water. Politicians on both sides of the aisle need to keep climate change front and center”**, said Gov. Schwarzenegger. To find out more about the event, visit [USC Schwarzenegger Institute](#).

Energy Efficiency Global Forum – Washington D.C., US, May 12-13

This conference convened hundreds of high-level industry professionals, members of academia, and policy-makers looking to create partnerships, discuss the latest technologies, and develop best practice policies and strategies for global implementation of energy efficiency. Through the activities and people involved, the EE Global sessions offered essential insights from business, policy, and environmental leaders leading the global energy efficient movement.

EVENTS IN 2015



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Global Sustainable Electricity Partnership's (GSEP) Summit, June 1, Rio de Janeiro, Brazil

Terry Tamminen, Strategic Advisor to R20's Founding Chair, attended the Global Sustainable Electricity Partnership's (GSEP) Annual Summit in Rio de Janeiro, in June. The event, hosted by Brazil's largest electric utilities company, Eletrobras, brought together the heads and representatives of the largest electricity companies around the world. Terry Tamminen opened the Summit with a speech on the green economy, progress so far and the remaining challenges for the energy sector. The summit closed with the transfer of the GSEP Chairmanship to State Grid Corporation of China for 2015-2016, whose theme will be "Roadmap for Energy Future - Moving from Today's Power Systems to a Global Energy Interconnection". The GSEP also issued its 2014-2015 Annual Report, summarizing a year of building capacities to foster stakeholder engagement through its capacity-building activities.

MED COP21 Conference, June 3-4, Marseille, France

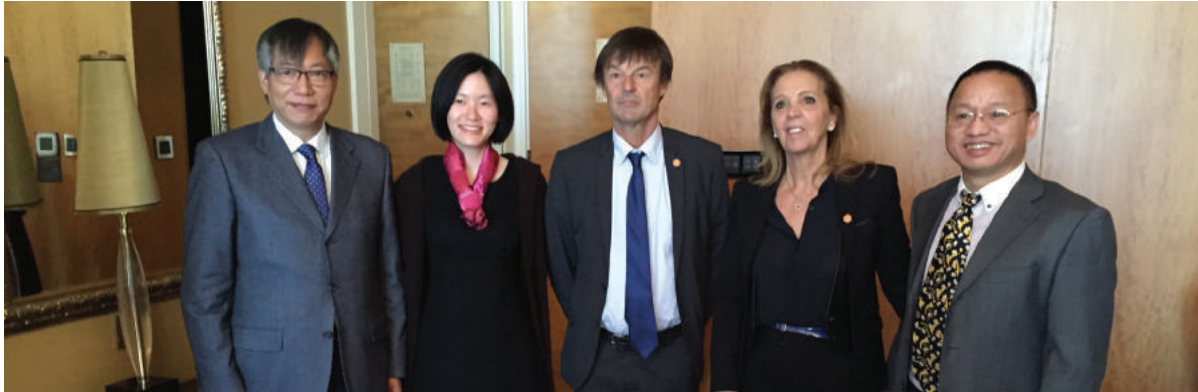
R20's President, Michèle Sabban, and R20 MED Director, Rachid Bessaoud, attended the MEDCOP21 conference that was held in Marseille. The event, held under the high patronage of French President Francois Hollande, was a meeting of Mediterranean stakeholders gathered to highlight the common commitment to climate action; and to showcase contributions by local authorities, associations and businesses catalysing sustainable development. During

the roundtable discussions Ms. Sabban spoke of R20's work to "transform words into actions" through its various projects in Brazil and Algeria, as well as upcoming projects in China. Ms. Sabban also referred back to the Women's Tribune held in Morocco on May 29-30, which highlighted the crucial role of women and education in the fight against climate change, and where the R20 Fund for Women in the Green Economy was officially announced.

Paris Climate 2015 Forum on Oceans, June 8, UNESCO, Paris, France

Ms. Sabban, attended the Paris Climate 2015 Forum on Oceans organised by the Intergovernmental Oceanographic Commission of UNESCO (IOC UNESCO) with the Ocean and Climate Platform, to celebrate the UN's World Ocean Day. The Forum was attended by Ségolène Royal (French Minister of Environment), Laurent Fabius (French Minister of Foreign Affairs) and Prince Albert II of Monaco. The Forum launched the Call of the Ocean for the Climate, representing the starting point of a broad mobilization to encourage the public and decision-makers to give a greater consideration to the oceans in climate negotiations. The event was concluded with speeches by Jean-Michel Cousteau, President of the Green Cross France, and Ms. Sabban. A Declaration calling for increased attention to the health of oceans as well as measures to preserve them was drafted and signed by the participants.

EVENTS IN 2015



Third Shenzhen International Low-Carbon City Forum, June 17-18, Shenzhen, China

Ms. Sabban attended the 3rd Shenzhen International Low-Carbon City Forum organised by the City of Shenzhen. The forum provided fresh perspectives on issues relating to sustainable development, addressing the role which cities and private companies play in realizing a low-carbon future. The forum's themes explored these issues and the role which technology (China's Internet Plus strategy), city planning, renewable resources, and the future of urban transportation play in supporting this development.

World Summit Climate & Territories, July 1-2, Lyon, France

R20 participated in the World Summit Climate & Territories in Lyon, France. The event gathered subnational authorities, NGOs, associations, economic actors as well as scientists and technical experts. Organised by the French region of Rhône-Alpes, under the high patronage of the French President, the event demonstrated that cities and regions are at the frontlines of the fight against climate change. Ms. Michèle Sabban spoke of the role of women in climate action and the R20 Fund for Women in the Green Economy. R20 MED, represented by Ms. Zhor Bereksi presented R20's household waste sorting project in Oran, Algeria. The Summit concluded with a Declaration of local authorities, the most widely supported climate declaration, signed by 50 networks of subnational and local governments, and civil society organisations representing more than two-thirds of the world population, in

which cities and regions commit to cut emissions by 1.5 billion tons by 2020.

Summit of African Regions and Cities on Climate, June 24-25, Yamoussoukro, Ivory Coast

The Summit organised under the high patronage of the President of Ivory Coast, Mr. Alasane Ouattara, was as a major milestone on the Road to Paris 2015. The Summit illustrated that a strong mobilization of regions and cities is essential to encouraging the adoption of a global agreement at COP21. The Summit discussed climate change impacts, mitigation and adaptation strategies, financing mechanisms, and international technical and financial partnerships for local development. The final Declaration of Yamoussoukro reaffirmed subnationals' commitment to pursue good governance, renewable energy and energy efficiency, sound natural resources management, sustainable urbanization and an enabling environment for investment. Ms. Sabban signed an MoU with the Association of Regions of Ivory Coast to secure their membership at R20.

EVENTS IN 2015



Arnold Schwarzenegger for the Summit of Conscience (July 21, 2015 - Paris)

The Summit of Consciences, Paris, 21 July

The Palais de l'Élysée, in collaboration with R20, Bayard Presse and the Alliance for Religions and Conservation (ARC), organised an unprecedented event in Paris gathering luminaries, religious figures, spiritual leaders, and high-level officials to make their moral case for climate action. The Summit of Conscience was opened by French President François Hollande, who stated that **“we must give new meaning to progress”** and ensure ambitious commitments at the Paris Climate 2015 Conference (COP21) so as to secure humanity’s future. Gov. Arnold Schwarzenegger addressed the audience by video, calling upon all present to inspire congregations, churches, mosques, temples and followers to fight for a clean energy future.

The Summit was a unique event blending the scientific and institutional reasons for fighting climate change, with the very real and mostly unspoken need for compassion, love and solidarity for all our fellow human beings.

Among the high dignitaries were HSH Prince Albert II of Monaco, Mr. Michael Higgins (President of Ireland), former UN Secretary General Kofi Annan, Patriarch Bartholomew (Ecumenical Patriarch of the Orthodox Church of Constantinople), Mary Robinson (UN Special Envoy for Climate Change), Segolène Royal (French Minister of Environment), Laurent Fabius (French Minister of Foreign Affairs). Spiritual figures included Reverend Takayuki Ashizu (Chief Priest



of the Shinto Munakata Grand Shrine), Sheikh Khaled Bentounès (Muslim spiritual leader of the Sufi brotherhood Alawiyya), Bishop Nathan Kyamanywa (Anglican Bishop in Uganda), Mr. Cheikh Lô (celebrated Senegalese musician), Rabbi David Rosen, Bishop Frederick Onaël Shoo, (nicknamed the “Tree Bishop”), Mr. Jatendar Ji Giani Gurbachan Singh (religious head of the Sikhs), Archbishop Peter Turkson (Cardinal of the Catholic Church), Master Zhang Gaoheng (vice president of the China Daoist Association), as well as representatives of the Kechua people of Ecuador.

At the behest of Nicholas Hulot, President’s Hollande Special Envoy for the Safeguard of the Planet, who led the event, a global call to conscience was launched. This declaration of sorts was whole-heartedly adopted and signed by all participants. It was sent to all the delegations attending COP21 to look inside their hearts and minds and answer the question “Why do I care?” before deciding on humanity’s fate. R20’s Executive Director Christophe Nuttall, announced the new R20 initiative called “Faithful Cities” aimed at the greening of a number of pilgrimage cities around the world.

CHAPTER V:
NEW MEMBERS & PARTNERS
R20 STAFF

NEW MEMBERS & PARTNERS



African Power Initiative Limited, API (Addis Ababa/Ethiopia) (www.api.co.ug/)

Atelier d'Architecture Malisan & Epicuria Architectes (Paris/France) (www.epicuria-architectes.com)

Bakman Sustainable Communities Foundation, USA (www.bakmanwater.com)

Bauminas Group (Campinas/Sao Paulo, Brazil) (www.bauminas.com.br)

Biotec Development Network (Boji-Boji Owa/Delta State, Nigeria)

Caisse des Dépôts et Consignations (CDC), (Paris/France) (www.caissedesdepots.fr)

Chamber of Euro-African Partnerships of Belgium, CPEAB, (Brussels/Belgium) (www.cpeab.org)

Construction21 International (Paris/France) (www.construction21.org)

Dodoma Region, Tanzania (www.dodoma.go.tz)

DT Engenharia de Empreendimentos LTDA (www.dtengenharia.com.br)

Environment and Development Society (EDS) (Kathmandu/Nepal)

FUNBIO (Rio de Janeiro/Brazil) (<http://www.funbio.org.br>)

Grades of Green, USA (www.gradesofgreen.org)

Green Global Group (GGG) MR. International Inc. (Tampa, Florida/USA)

Green Retirement Inc. (Alameda, USA) (www.greenretirement.com)

Hawaii LED LLC, representing INESA / Feilo Acoustics Ltd (Hawaii/USA)

Institute of Sustainable Development (Blantyre/Malawi)

Inter-Parliamentarian Union, IPU (www.ipu.org)

Lebendige Stadt Foundation (Hamburg/Germany) (www.lebendige-stadt.de)

Ogun State, Nigeria (www.ogunstate.gov.ng)

Organization for Protection of the Environment (Bujumbura/Burundi) (www.odeb-dev.org)

Prince Albert II of Monaco Foundation (www.fpa2.com/home.html)

Research Institute for Spiritual Environments [R.I.S.E.] (Seoul/South Korea)

Silicon Valley Founders Base Inc. (Shanghai/China)

Sustenersol (Tanzania) (www.sustenersol.com)

Youth Leadership Development Foundation, YLDF (Sana'a/Yemen) (www.yldf.org)

R20 STAFF

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Liliane Ursache
Operations Director

John Tidmarsh
Chief Investment Officer

Denise Welch
Director of Research & Technical Initiatives

David Albertani
Program Director

Qiuping Li
Director for Asia (HQ)

Jini Sebakunzi
East Africa Programme Manager

Carla D.G. O'Donnell
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R20 Director for Brazil

R20 China

Yufu Cheng
R20 Director for China

R20 Indonesia

Budi Santoso
R20 Director for Indonesia

Rizki Fauzi
Assistant Secretary

R20 MED

Rachid Bessaoud
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