MOMENTUM for CHANGE

Annual Report 2013
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Take a look at how Momentum for Change showcased the 2013 Lighthouse Activities at the Warsaw Climate Change Conference.

Looking Forward
In 2014, Momentum for Change will continue to showcase concrete climate action.

ICT Solutions
Launched in 2013, Momentum for Change’s newest focus area will showcase information and communications technology (ICT) solutions.
One of the questions I struggle with on a daily basis as Executive Secretary of the United Nations Climate Change Secretariat is: how can we scale up and speed up the transformational change needed to tackle climate change?

By “we” I mean all of us. And by “transformational” I mean game-changing. The world’s top scientists tell us that we need to transform the way we use the planet’s natural resources – from forests and soil to oil and water – to avoid the worst impacts of climate change.

It may sound like a Herculean task. But the reality is that transformational change is already underway. It may not be happening on the scale or at the speed we need, but it is happening.

There are thousands of examples of people, businesses, governments and institutions around the world already making the shift to a low-carbon, highly resilient future. The problem is that these good news stories are often eclipsed by negative news about the state of the planet.

That’s why I decided to establish the Momentum for Change initiative in 2011. I wanted to celebrate all of the good work being undertaken across the globe to address climate change and sustainability, in order to inspire others to do the same.
Each year, Momentum for Change recognizes game-changing initiatives that not only tackle climate change but also other challenges like poverty and natural resource use. Winning initiatives, called Lighthouse Activities, are celebrated at the annual year-end United Nations Climate Change Conference.

From a powerful, women-led climate campaign in Australia to a ground-breaking effort to build climate-smart housing in Mexico, the 2013 Lighthouse Activities are true beacons of hope, demonstrating what happens when innovation and passion come together to address the biggest challenge and opportunity of our time.

Momentum for Change’s Advisory Panel, an expanding group of experts from various fields and countries, selected the 2013 Lighthouse Activities. Each of these activities is achieving real results in one of three focus areas: action by and for the urban poor; action that fosters women’s leadership and empowerment; and action that is financing climate friendly investment.

THE YEAR IN REVIEW
Momentum for Change made great strides forward in 2013. The Advisory Panel selected 17 outstanding Lighthouse Activities from a record number of 252 submissions. Momentum for Change expanded its reach in raising awareness about how these activities are crucial to meeting the climate challenge through more press coverage, celebrity endorsements, op-eds, videos and social media buzz than ever before – drawing more attention to the Lighthouse Activities and strengthening Momentum for Change’s brand and reputation.

Inspired by the innovation shown by the Lighthouse Activities, we had a few new ideas ourselves. We generated a series of advertisements that greeted delegates at the Warsaw airport during the United Nations Climate Change Conference. We hosted a series of live Google Hangouts throughout the year. We designed a new logo and revamped our website. We even joined forces with Hollywood actor Mark Ruffalo to push climate solutions forward. You can hear Mark’s voice in a terrific animated video that explains what Momentum for Change is all about.

Our new focus areas, launched at the end of 2012 (Women for Results and Financing for Climate Friendly Investment), came into their own in 2013. We received impressive applications for both of these new focus areas.

Our Advisory Panel continued to grow, with eight new members coming on board in 2013. That growth was not just limited to numbers – the Advisory Panel took on additional responsibilities, helping to shape and refine the selection criteria, as well as provide strategic advice and guidance for the years ahead.

In 2013, we enhanced the benefits package for Lighthouse Activities to include media training and communications support. This had direct spin-off effects on the Lighthouse Activities, helping them expand and scale up the work they do.

LOOKING FORWARD
Momentum for Change is looking to build on its success in 2014. We will still shine a light on small, entrepreneurial solutions that are changing communities, as well as large activities that are transforming cities, businesses and governments. But we are also looking to highlight initiatives with a bigger impact than ever before. Effectively addressing climate change requires action from all levels of society and from every sector, with efforts that are both small and large.

I am also excited about Momentum for Change’s new partnership with the Global e-Sustainability Initiative to underscore the critical role information and communications technology (ICT) plays in tackling climate change. ICT will be the fourth focus area for Momentum for Change, and I can’t wait to celebrate an even more robust package of Lighthouse Activities at the 2014 Climate Change Conference in Lima, Peru.

None of our success in 2013 would have been possible without the generous support from our partners – the Bill & Melinda Gates Foundation, The Rockefeller Foundation and the World Economic Forum. Also, we would not be able to showcase climate solutions without our dedicated Advisory Panel. And there would be no solutions to shine a light on without you.

Thank you for helping build momentum for change. Together, we are catalyzing change for good!
SHINING A LIGHT ON CLIMATE SOLUTIONS

Lighthouse Activities are true beacons of hope, showing that transformational action on climate change is not only possible but that it is already happening. The 2013 Lighthouse Activities are achieving results in three key areas: Urban Poor, Women for Results and Financing for Climate Friendly Investment.

### Climate Resilience
Reducing risk and building resilience to the effects of climate change
- Addressing extreme weather in vulnerable communities in Bangladesh
- Building flood-resilient and affordable homes in India
- Putting community-led adaptation activities into action in Mozambique
- Creating opportunities for vulnerable women in Kenya

### Energy
Tapping into clean, renewable sources of energy
- Funding clean energy projects in the Philippines
- Deploying solar farms around the world
- Bringing solar energy to Bangalore’s slums in India
- Using low-smoke cook stoves in Sudan
- Supporting low-carbon growth with innovative finance in China

### THE 2013 LHIGHTHOUSE ACTIVITIES
ARE ACHIEVING REAL RESULTS IN THREE FOCUS AREAS:

- **Urban Poor**: Activities that address climate change while improving the lives of the urban poor in developing countries.
- **Women for Results**: Activities that celebrate the critical leadership and participation of women in tackling climate change.
- **Financing for Climate Friendly Investment**: Activities that showcase successful financial innovations that cut carbon emissions and build resilience.
**Lighthouse Activity**
The 17 Lighthouse Activities in 2013 are spread across four continents.

**Eligible Activities**
Momentum for Change received 123 eligible applications in 2013.

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**Sustainable Cities**
Switching to climate friendly solutions in urban areas
- Financing sustainable housing in Mexico
- Fostering sustainable sanitation in Liberia
- Empowering women to take action in Australia

**Land Use**
Managing the natural environment in a sustainable way
- Investing in agriculture around the world
- Building resilience through food and trees in South Africa
- Improving lives with trees and fuel-efficient stoves in Guatemala

**Transportation**
Reducing emissions with better transportation
- Building bamboo bicycles in Ghana

**Waste**
Converting waste into low-carbon business opportunities
- Reducing landfill waste in Ghana
Although urban centres are often ill-prepared to meet the basic needs of rapidly expanding populations, the urban poor are incredibly resourceful people, with their own networks and the proven capacity to save and invest in the betterment of their communities. Climate change creates a stimulus to improve and transform some of the most vulnerable urban communities. These Lighthouse Activities address climate change while improving the lives of the urban poor in developing countries. This focus area is implemented with the generous support of the Bill & Melinda Gates Foundation.
In the crowded city of Kumasi, Ghana, garbage is a major problem. The government sanitation systems do not reach the slums. But the young people of the Recycle Not a Waste Initiative (Recnowa) are turning the waste into a low-carbon business opportunity. The social enterprise employs local artisans and street youth in poor urban communities to take recyclable waste out of landfills and off the streets, reducing emissions at the same time.

Ten plastic waste mobilization centres, which process between 80 to 100 tonnes of plastic each month, are managed by groups of trained street youth. The plastic collectors earn money for every 50 kilograms of plastic they remove from the streets, markets and waste bins. By converting waste materials into eco-friendly goods, the initiative has already cut carbon emissions by more than five million kilograms. Recnowa has also created 30 direct jobs and 100 indirect jobs (such as plastic waste collectors, sorters and transporters), with workers earning a higher wage than most other Ghanaians in similar positions.
From plastic waste... to beads
Recnowa transforms recyclable waste into products for sale, while creating employment opportunities and financial independence for young people.

1 Collecting
Street youth receive money for every 50 kg of plastic they remove from the streets.

2 Melting
Trained street youth manage the 25 plastic waste mobilizations centres.

3 Mixing
Upcycling maintains health and well-being of workers as it does not release toxic fumes and CO₂.

4 Wrapping
Each week, Recnowa produces 250–300 items for sale.

5 Drying
Upcycling is improving living standards as well as reducing the incidences of waterborne disease such as typhoid, cholera, malaria and dysentery caused by dumping waste.

6 Beading
The World Bank estimates that 1 percent of the urban population in developing countries earns a living through waste collection and/or recycling.

144 jobs created*
720 people benefiting

144 jobs created* 720 people benefiting

5 million kg of CO₂ emissions avoided

80 to 100 tonnes of plastic processed each month

5 million kg of CO₂ emissions avoided

25 x less emissions than incineration

25 x less emissions than incineration

25 x less emissions than incineration

65,000 assorted items made so far

65,000 assorted items made so far

65,000 assorted items made so far

2.5 kg of CO₂ per kg plastic

2.5 kg of CO₂ per kg plastic

2.5 kg of CO₂ per kg plastic

* 44 direct, 100 indirect jobs
In the slums of Bangalore, children cannot do their homework after the sun sets. Families use polluting kerosene lamps, and the fuel eats up a significant percentage of their humble incomes. Pollinate Energy trains members of the local community to distribute and install solar lighting systems as micro-entrepreneurs, or what the organization calls “Pollinators.” These Pollinators are armed with the best solar systems on the market and sell them to families within their communities.

This activity has two key benefits: it gives communities access to cheaper, renewable energy, providing alternatives to the expensive and toxic kerosene lamps that many of them use; and it gives community members the opportunity to earn extra income through a micro-entrepreneurship programme.

**BRINGING SOLAR ENERGY TO BANGALORE’S SLUMS**

**Savings per household**

<table>
<thead>
<tr>
<th>Firewood</th>
<th>Kerosene</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,560 kg per year</td>
<td>68 litres per year</td>
</tr>
</tbody>
</table>

**Savings per household**

<table>
<thead>
<tr>
<th>Firewood</th>
<th>Kerosene</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 kg per week</td>
<td>1.3 litres of kerosene* per week</td>
</tr>
</tbody>
</table>

453,988 kg of CO2 emissions saved since 2012

* 173,215 litres of kerosene in total (as of 5 May, 2014)
1. Pollinate Headquarters in Bangalore finds the best and most affordable products and manages supplier relationships. These products are then made available to the Pollinators to sell.

2. The Pollinator is the link between Pollinate Energy and the communities. They build trust with the community’s members and sell the various products provided by Pollinate’s HQ.

3. A Worker Bee is a member of a community who helps the Pollinator in generating interest and sales within their community. They earn a commission for any sales they help close.

4. The customer is the end user, typically a family living in a tent with no access to electricity. With the help of a five-week payment plan, they are able to purchase products that dramatically improve their living standards.

5. Pollinate Energy is set to replicate its model across India. It has the potential to operate across 50 major Indian cities with a network of 20 Pollinators per city, servicing a total of around 35,000 communities.
The Mahewa ward of Gorakhpur, India, is prone to flooding during the monsoon season, affecting more than one million people in Uttar Pradesh. Many of the people who live in this community are poor and marginalized and are therefore more vulnerable to the impact of climatic hazards, such as floods, cyclones, altered rain patterns and heat-waves.

Community-Based Micro-Climate Resilience helps urban poor communities in Gorakhpur adapt to climate change by designing and building new types of flood-resilient, affordable houses.

Locally available bricks are used, with technologies and techniques that make building walls less energy intensive. This building method is more environmentally friendly than conventional practices, both in terms of optimization of resources and energy efficiency.
Building energy-efficient brick walls
Locally produced bricks are used in construction, which reduces greenhouse gas emissions associated with transporting bricks long distances.

New houses are more resilient to the impact of climatic hazards such as floods, cyclones, altered rain patterns and heat-waves.

This building method is more environmentally friendly than conventional practices, both in terms of optimization of resources and energy efficiency.

Climate friendly construction uses 19% fewer bricks.

Climate friendly construction uses 54% less cement mortar.

Climate friendly construction uses 54% less cement mortar.

DESIGNING AND BUILDING FLOOD-RESILIENT AND AFFORDABLE HOMES TO HELP THE URBAN POOR ADAPT TO CLIMATE CHANGE.
Since the civil war ended in Liberia in 2003, many areas of the capital of Monrovia still have damaged sewer infrastructures. Fecal sludge in latrines is left untreated, which is causing health problems and emitting methane, a potent greenhouse gas. Fostering Innovative Sanitation and Hygiene (FISH) is the first initiative by the Government of Liberia since the civil war to provide fecal sludge management services to unsewered poor areas. FISH reduces greenhouse gas emissions while providing new or improved access to sanitation for 800,000 people.

The initiative will also collect and treat fecal sludge along with the controlled capture of biogas to produce reusable products and fertilizer. The activity is creating health benefits by reducing people’s vulnerability to waterborne diseases that result from open defecation and septic tank overflows.
Improving health with improved sanitation and hygiene

800,000 people provided with new or improved access to sanitation, 15 businesses and 55 new jobs created for the urban poor

30% of the new businesses will be owned by women

Treating fecal sludge reduces methane emissions, which have 25 times more greenhouse impact than CO₂.

1. Using septic tanks with biodigesters

2. Connecting public toilets to the sewer system

3. Improving the toilet facilities (at home or in marketplaces)

Controlled capture of biogas to produce reusable products and fertilizer

Reducing vulnerability to waterborne diseases that result from open defecation and septic tank overflows
Public Private People Partnerships for Climate Compatible Development (4PCCD) empowers people living in urban poor neighbourhoods in Maputo, Mozambique, to design and implement activities to adapt to climate change. These activities include improving and maintaining drainage channels, protecting the water supply, managing local waste and establishing awareness and communication channels between citizens and relevant institutions.

The activity focuses on producing local plans and engaging municipal and national government institutions, which are developing strategies to tackle climate change. 4PCCD also gets citizens involved in decisions that increase their resilience to climate change and the future sustainability of their neighbourhoods.
Four-Step Process
Learn how 4PCCD works to address climate change.

1. Establish criteria to assess public-private-people partnerships

2. Create an action plan for urban communities to define strategies for climate resilience

3. Tackle climate change by inspiring citizens, governments and businesses to work together to put plans into action

4. Disseminate findings to contribute to a nation-wide climate change strategy

4PCCD shows that businesses, governments and communities can work together to address climate change through local partnerships.

Because of its coastal location, Maputo is exposed to severe climate risks, such as flooding, cyclones and sea-level rise. The area was often flooded after it rained.

By building ditches that drain the water...

...the roads are kept dry and flooding is better controlled.
WOMEN FOR RESULTS

Women are disproportionately impacted by the effects of climate change such as droughts, floods and other extreme weather events. These Lighthouse Activities recognize the critical leadership and participation of women in addressing climate change. This focus area is implemented with the generous support of The Rockefeller Foundation.
1 Million Women started with just one woman.

76,000 women joined 1 Million Women.

Within three years, 1 Million Women grew to 15,000 members.

Enjoy the journey and the destination
In Australia, the average car is driven 15,000 km per year. We can make a difference by choosing to walk, cycle, take public transportation or share a ride.

Small Steps Add Up to a Big Difference
In Australia, women are building a movement to take action on climate change in their homes, offices and communities. The organization 1 Million Women has a simple goal with a big impact: get one million women to pledge to take small steps in their daily lives that save energy, reduce waste, cut pollution and lead change.

Since 2009, 1 Million Women has grown to become Australia’s largest women’s environmental organization. Finding ways to make 1 Million Women an organization that engages women and girls everywhere is central to its development plans for the next three years.

**Save electricity**
1 Million Women found that it was surprisingly easy to save 20% of their members’ household electricity consumption by just turning off their lights.

**Consume less**
Just deciding not to spend AUD 100 on stuff we don’t need can save 100 kg of greenhouse gas pollution.

**Waste less, save more**
Simply cutting food waste in half can help families save AUD 500 and cut 500 kg of greenhouse gas emissions a year.

**Recycle, repair, share**
Aluminium cans made by recycling old ones only require 5% of the energy that is needed to make brand new ones.

When the campaign reaches its ultimate target of one million women members and cutting more than one million tonnes of carbon emissions, it will be equivalent to taking 240,000 cars off the road for a year.
Climate Change Adaptation and Disaster Risk Reduction in Bangladesh is a women-centred initiative that helps communities in Bangladesh adapt to climate change by addressing extreme weather conditions such as cyclones and flooding, as well as the consequence of increased salinity conditions in agriculture in Bangladesh.

The initiative, which is implemented by ActionAid Bangladesh, brings together groups of women who lead vulnerability assessments of climate risks and then develop action plans. These plans are later implemented by the same groups of women brought together by the initiative. The initiative also facilitates dialogue between communities and the local government to ensure that the good practices piloted by the women-led groups are scaled up.
Increasing Resilience to Climate Change

More profit thanks to diversification

Larger crop diversification on embankments helps 441 farmers reduce costs and increase profits.

Farmers plant a wide variety of crops, from rice to peanuts to garlic.

The community contributes 25 per cent of the investments.

- **Improved cook stoves installed in 110 households** has reduced carbon emissions by 40% compared to traditional stoves.
- **10 provisory dams built** to preserve fresh water and prevent salinization.
- **Building bunkers and shelters**
- **Homestead gardening and roadside fruit tree plantation generating additional income and contributing to better nutrition**

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**Costs vs. Profit**

- **USD 220 thousands total crop revenue**
- **Felon dal**
- **Rice**
- **Sunflower**
- **Peanut**
- **Chilli**
- **Sweet potato**
- **Garlic**
- **Khera**
- **Water melon**
- **Wheat**

**Profit Margin**

- Costs
- **Profit Sell value**

**Contributed by community**

**Total investment for embanking USD 1,747.50**

**Contributed by AAB**
La Alianza Internacional de Reforestación (AIRES), or Alliance for International Reforestation, promotes tree planting to sequester carbon and improved farming techniques, such as preventing erosion, improving yields and increasing crop diversity. The activity also builds efficient brick stoves with chimneys that reduce both the negative health impacts caused by smoke inhalation and the need to cut down trees for fuel.

The women-led AIRES offers training and tools to women farmers in Guatemala. The trees planted by the women prevent mudslides and soil erosion, clean the air, provide shade and sequester carbon, which helps mitigate climate change.

Positive results
In 2014 alone (January to May 2014), AIRES has planted 355,900 trees in Guatemala to:
- prevent erosion
- improve crop yields

Thousands of trees planted
400
355,900
191,404
0
2008 to 2014
**Planting Trees, Changing Lives**

Over 500,000 tonnes of CO₂ emissions have been sequestered since 2000.

- 4 million trees in 10 native species planted to:
  - sequester carbon
  - improve farming techniques
  - prevent mudslides and soil erosion

- 538,515 kg CO₂ emissions have been sequestered.

- 1,348 farmers currently in training
  - Men: 15%
  - Women: 85%

- 820 new stoves built

- 150 villages have benefited from this activity.

- AIRES works in a total of 42 villages and schools in Guatemala.

- Deforested mountain slopes cause soil erosion and dangerous mudslides, endangering villages.

**Empowering women farmers**

A large majority of the farmers receiving training and tree nurseries are women.

**Building efficient stoves**

AIRES builds efficient stoves that reduce the use of firewood by half and conserve an average of five trees per year per stove.
Propelled by women’s leadership, the Ghana Bamboo Bikes Initiative is tackling climate change by building high-quality bamboo bicycles. The initiative has double the climate benefits: it reduces emissions not only from the transportation sector but also from the bicycle production process. Compared to traditional steel bicycles, making bamboo bicycles releases far fewer emissions, requires less electricity and uses no hazardous chemicals.

The Ghana Bamboo Bikes Initiative is improving the lives of many rural Ghanaians not only by delivering a non-polluting and affordable form of transportation that satisfies local needs, but also by creating employment opportunities for women and stimulating economic growth. Producing stable, more affordable and reliable bikes in Ghana is helping the country reduce its dependence on fossil fuels while increasing economic opportunities for rural Ghanaians.
High-quality Bamboo Bicycles
Compared to the production of traditional metal bicycles, bamboo bikes require less electricity and no hazardous chemicals.

Bamboo frames
Growing bamboo helps prevent soil erosion and improves water and air quality. Bamboo trees that are not cut to produce bike frames help sequester carbon dioxide.

Comfortable yet sturdy
A square inch of bamboo can carry a weight of 230 kilograms, and its tensile strength is 28,000 newtons, compared to 23,000 for steel.

Bamboo generates up to 35% more oxygen than an equivalent stand of trees.

Bamboo saves 5 kg of carbon emissions compared to the production of conventional steel frames.

Employment opportunities
30 jobs created (20 bike assemblers and 10 farmers) for young people, especially women.

4,798 beneficiaries
Both the production of bamboo bikes and bamboo charcoal briquettes benefit many rural Ghanaians.

The Ghana Bamboo Bikes Initiative benefits thousands of people and helps the local economy by creating jobs.
The BOMA Project helps women living in extreme poverty in Kenya’s arid lands adapt to climate change by starting small businesses in their villages, which enables them to develop a diversified livelihood. Its Rural Entrepreneur Access Project (REAP) targets the poorest and most vulnerable women in each community, most of whom live on less than USD 1.25 per day. REAP builds resilience to climate change because it enables women to own productive assets, which generate income and are not tied to the drought-threatened livestock industry.

REAP provides a start-up grant, sustained business-skills and savings training. It also provides hands-on support by local BOMA village mentors.
Second grant (USD 50)
Provides additional capital to help the business grow.

Formation of BOMA savings association
Mentors assemble savings groups (three to eight REAP groups).

Access to credit
REAP businesses and individuals make regular contributions to the savings pool, which is then used as a source of credit, with established guidelines and lending rules, for business expansion and individual interest-bearing loans.

BOMA helps women generate income so they’re not tied to the drought-threatened livestock industry.
Food & Trees for Africa (FTFA) fosters women’s leadership to address climate change. The initiative carries out activities such as planting trees to sequester carbon and raises public awareness about climate change. Its six programmes also enhance food security, alleviate poverty, teach women skills and create a healthier and more sustainable environment. Thousands of schools, women’s groups and other community organizations have benefitted from the planting of millions of trees and thousands of organic food gardens.

There are increasing numbers of organizations that are planting trees to mitigate climate change based on the FTFA model and are developing permaculture training, educational material and gardens.

INCREASING NUMBERS OF ORGANIZATIONS ARE PLANTING TREES.
Trees for Homes
This programme provides trees, training, awareness and income to thousands of communities across South Africa.

- **4.2 million**
  - trees planted to date, resulting in 105,000 hectares of forest

- **More than 1.5 million**
  - tonnes of carbon sequestered

Farmer Eco Enterprise Development (FEED) Programme
Hundreds of tonnes of organic vegetables produced by community farmers. FEED is growing food and fortunes.

- **10,000**
  - community educators trained

Food Gardens for Africa
This programme is essential for ensuring food security and sovereignty in the future.

- **Thousands of women benefiting**
  - from FTPA’s programmes every year

- **Thousands of permaculture food gardening projects created**
  - Fruits and vegetables are used in feeding schemes and sold by communities.
Given our planet’s growing environmental and resource challenges, the imperative for shifting development onto a more sustainable pathway is increasingly clear. Governments can use strategically targeted public funds and policies to address the risks faced by private investors, resulting in a significant increase in private capital flows for climate friendly development. These Lighthouse Activities showcase successful financial innovations for climate change adaptation and mitigation. This focus area is implemented in partnership with the World Economic Forum.
The China Clean Development Mechanism Fund (CCDMF) is a national climate fund that supports low-carbon growth and climate resilience in China. It is a revolving fund that receives regular capital from levies collected by the government on Clean Development Mechanism (CDM) projects in China.

The Fund provides support for climate mitigation and adaptation projects in China, including energy efficiency and clean energy projects, and leverages private sector investments into these areas. It also supports policy studies, capacity building and public awareness raising activities.

Government representatives from Brazil, Viet Nam and Cambodia have already visited CCDMF to learn more about this type of climate financing.

1. Managing the revenues collected from CDM projects through the CCDMF ensures that all collected levies are used to directly support projects that address climate change in China.

2. Project developers must ensure the whole process of project planning, implementation and assessment meets all social and environment safeguards requirements.

3. The revenues are mainly used to finance investment programmes to leverage additional resources from the private sector in China. By the end of 2013, CCDMF invested around USD 1 billion into more than 110 projects, with the leverage ratio over 1:5.
4. CCDMF provides grants for projects that support activities related to policy studies, research, capacity building and public awareness related to climate change. By the end of 2013, more than USD 110 million in grants has been committed to support more than 364 climate-focused projects.

5. The CCDMF focuses particularly on leveraging private sector engagement to finance climate actions by bridging the government and the market.

6. It introduces, innovates and reproduces climate finance tools and sparks great ideas.

Direct reduction of over seven million tonnes of CO₂ equivalent through funding enterprises, mobilizing market capital and achieving verified emission reductions.
Rapidly expanding cities in Mexico are bringing with them increased energy demand and inefficient transport patterns. Mexico’s residential sector currently accounts for about 16 per cent of total energy use and 26 per cent of total electricity use. But sustainable housing requires investment. The ECOCASA initiative is helping Mexico tackle climate change by unlocking financing to build low-carbon housing and increasing the amount of mortgages for this housing.

Providing financing to build more sustainable houses will help lower energy consumption and spending, cut greenhouse gas emissions and strengthen government policies and initiatives.

THE ECOCASA INITIATIVE REDUCES GREENHOUSE GAS EMISSIONS AND STRENGTHENS GOVERNMENT POLICIES AND INITIATIVES.
In its first 7 years, ECOCASA will help build 27,600 houses and sell 1,700 green mortgages.

ECOCASA Total: USD 302.4 million

Private Sector USD 86 million

Inter-American Development Bank (IDB) (Financing green mortgages) USD 50 million

Clean Technology Fund USD 51.6 million

KfW (German international cooperation) USD 114.8 million

Build support for the development of public policies for low-carbon housing

Strengthen the capacities of the housing industry and housing finance institutions

Increase public awareness of low-carbon housing

Natural ventilation strategies

- Improved thermal envelope
- Double-pane glass in windows

MEXICO

MONTERREY
Solar panels traditionally require a significant up-front investment and a long-term payback period, but what if you could rent them short-term? Redavia leases cost-effective, convenient and clean solar farms without up-front capital investment or long-term obligations. The farms in turn reduce consumption of diesel fuel by generators, improve access to electricity and reduce emissions and power costs in communities around the world.

Redavia enables customers to replace diesel power with solar power during the daytime, thereby reducing energy costs, locking in a fixed power price over a flexible contract period while avoiding carbon and other harmful emissions.

» REDAVIA’S FAST TRACK SOLAR (FTS) SYSTEM IS THE FIRST, PRIVATELY FINANCEABLE, SUBSIDY-FREE, SCALABLE SOLAR FARM PRODUCT IN THE WORLD.
Hybridization saves money and reduces CO₂ emissions

Diesel fuel prices are likely to increase further in the coming years, but for every MWh of diesel power replaced with solar energy, it cuts 40 per cent of costs and reduces CO₂ emissions at large energy plants.

**The cost of oil is increasing**

Dollars per barrel of oil

<table>
<thead>
<tr>
<th>Year</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>87</td>
</tr>
<tr>
<td>2010</td>
<td>120</td>
</tr>
<tr>
<td>2015</td>
<td>150</td>
</tr>
</tbody>
</table>

*Source: Thomson Reuters*

**Solar hybridization reduces costs**

- 40% net savings
- Solar farm rental fee
- Generator backup costs

*Source: Redavia*

**Solar hybridization also reduces CO₂ emissions**

- Shanta phase 1: 661,500 metric tons
- Shanta phase 2: 15.7 million metric tons
- Shanta phase 3: 21 million metric tons

*Amount of CO₂ emissions reduced at three mining sites in Tanzania using FTS.*
Smallholder farmers make up a significant percentage of global land users, but they are a challenging group to reach, and they often lack access to investments, knowledge and information. The Adaptation for Smallholder Agriculture Programme (ASAP) channels climate finance to smallholder farmers so they can access the tools and technologies that help build their resilience to climate change. Launched by the International Fund for Agricultural Development (IFAD) in 2012, ASAP is the world’s largest climate change adaptation programme for smallholder farmers, reaching millions of smallholders worldwide.

ASAP empowers smallholder farmers and community-based organizations to make use of new climate risk management skills, information and technologies and combine them with tried and tested approaches to sustainable land and water management.

As of May 2013, ASAP investments have been approved for Bangladesh, Bolivia, Djibouti, Ghana, Kyrgyzstan, Mali, Mozambique, Nicaragua, Nigeria, Rwanda, Viet Nam and Yemen. Twenty-three additional countries have ASAP investments under design.
Smallholder farmers are a challenging group to reach, and they often lack access to investments, knowledge and information.

**Mobilizing climate financing for smallholder agriculture**
As of 1 February 2014, the total commitments from eight donor countries (Belgium, Canada, Finland, Netherlands, Norway, Sweden, Switzerland, and United Kingdom) amounts to USD 353 million. Of this amount, USD 298 million are available for programming and up to USD 50 million are in the form of conditional finance.

**Climate Impacts**
- Increasing exposure to extreme weather events
- Increasing need for adaptive capacity
- Increasing sensitivity of livelihoods to water stress, land degradation and loss of biodiversity

**ASAP in Action**
- Scaling up of multiple-benefits adaptation approaches
- Putting smallholder farmers on the climate finance map
- Enhancing climate risk management in agricultural landscapes
- Improved weather station networks are providing farmers with more reliable seasonal forecasts.
- Mapping technologies are helping farmers to better understand and monitor landscape use in a changing environment.
How the Sustainable Energy Finance (SEF) Program mobilizes climate financing in the Philippines

1. The SEF Program provides advisory services to local private banks to help their clients invest in energy efficiency and renewable energy projects.

Bank loans to implement energy efficiency and renewable energy projects

- Energy efficiency: 81
- Renewable energy: 37
- Total number of loans: 118

Amount of approved loans as of May 2014

- Energy efficiency: USD 195 million
- Renewable energy: USD 245 million
- Total value of loans in USD: USD 439 million

2. Bank-hired technical experts evaluate prospective clients for energy efficiency and renewable energy potential at their respective facilities.

Developers repay the loan. Energy savings in energy efficiency projects can pay for the loan.
About the Sustainable Energy Finance Program

The groundbreaking Sustainable Energy Finance (SEF) Program is paving the way for more private sector investments in energy efficiency and renewable energy projects. These projects are improving energy security, reducing greenhouse emissions and boosting economic development in the Philippines by helping provide an adequate supply of less expensive energy. The SEF is an advisory programme being implemented by the International Finance Corporation (IFC) in different regions around the world.

The Philippines SEF Program supports private banks through capacity building, technical evaluation and product development to help them finance energy efficiency and renewable energy projects. In some cases, the IFC can also provide local banks a 50 per cent risk share guarantee for qualified projects.

An SEF-funded project in the Philippines captures methane from pig manure to produce clean energy.

With enhanced knowledge and an understanding of the business case, local private banks are more confident to lend to project developers and proponents.

Developers borrow money to implement recommended technologies, which enable them to reduce energy expenses by as much as 30% and cut CO₂ emissions.

Financing for energy efficient technologies can reduce a company’s operating and energy expenses by as much as 30%.

Collecting pig manure for biogas also addresses solid waste management issues.

Pig manure is collected in a waste tank.

Fermentation generates heat, which powers electric turbines.

Electricity is used for climate control, providing cool air inside the building.

Overall CO₂ reduction 1,053,701 tonnes per year

Total energy savings USD 135 million

Overall CO₂ reduction 1,053,701 tonnes per year

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Financing for energy efficient technologies can reduce a company’s operating and energy expenses by as much as 30%.
Using Low-Smoke Cook Stoves

The Low Smoke Stoves Project is delivering health and economic benefits to households in the strife-torn region of Darfur, Sudan, where climate change, drought and desertification are a fact of life. The project provides a transformational financing scheme to reduce greenhouse gas emissions by replacing traditional wood and charcoal stoves with energy-efficient liquefied petroleum gas (LPG) cook stoves.

Burning charcoal and firewood for cooking contributes to thousands of deaths each year due to smoke inhalation. The Global Alliance for Clean Cookstoves notes that cooking with LPG stoves reduces most key pollutants by more than 95 per cent and reduces energy consumption by 50 to 70 per cent in comparison to dirtier fuels. Additionally, cooking with LPG stoves is a cheaper alternative to firewood and charcoal, making it a more sustainable option for households.

Fully funded through carbon finance and co-managed by local women’s networks, this activity aims to deliver 10,000 cook stoves, which will cut more than 300,000 tonnes of carbon dioxide equivalent over 10 years.

Social benefits for women

- 92.5% women have more time for income generating activities.
- 72.5% women acknowledge that their kitchen and house is cleaner since beginning to use LPG.
- 40% women consider themselves to have a better social status since installing the new cook stoves.

The First Ever Carbon Credit Programme to be Registered in Sudan.
85% of households acknowledged that the use of LPG has improved indoor air quality.

1,827 stoves distributed between 2011 and 2013

Improved stoves have a lifetime of 5 to 10 years

$\times 1,000$ kg tonnes CO$_2$ reduced

Total number of stoves distributed

Costs per household per month

- Charcoal
- LPG
Momentum for Change made great strides forward in 2013. The following pages tell the story of our success in numbers. They introduce the Advisory Panel and explain how they selected 17 Lighthouse Activities from a record number of 252 submissions. These pages also take a look at some of the events and activities that helped draw attention to the Lighthouse Activities and strengthened Momentum for Change’s brand and reputation. Finally, they show how Momentum for Change generated more media coverage than ever before in 2013.
The Momentum for Change Advisory Panel, made up of experts from various fields and countries, selects the annual Lighthouse Activities. The Advisory Panel also provides guidance on the selection process and the development of the selection criteria. In 2013, the Advisory Panel selected 17 Lighthouse Activities, each one demonstrating innovation, scalability and potential for long-term transformative change.

**MESSAGE FROM THE CO-CHAIRS**

On behalf of the Momentum for Change Advisory Panel, we were pleased to select 17 inspiring and innovative Lighthouse Activities in 2013. After receiving 252 worthy applications, we had the challenging task of selecting a small group from among them that stood out as true beacons, shining light on solutions that address both climate change and wider economic, social and environmental challenges. These activities also demonstrate the potential to replicate and scale up similar action around the world.

**APPLICATION PROCESS**

- **January**
  - Financing for Climate Friendly Investment
  - Women for Results
- **February**
  - Urban Poor
- **March**
  - January
  - February
  - Financing for Climate Friendly Investment
  - Women for Results
  - Urban Poor
- **April**
  - January
  - February
  - March
  - Financing for Climate Friendly Investment
  - Women for Results
  - Urban Poor
- **May**
  - January
  - February
  - March
  - April
  - Financing for Climate Friendly Investment
  - Women for Results
  - Urban Poor
- **June**
  - January
  - February
  - March
  - April
  - May
  - Financing for Climate Friendly Investment
  - Women for Results
  - Urban Poor
**SELECTION CRITERIA**

**IN ORDER TO BE CONSIDERED ELIGIBLE, ALL 2013 ACTIVITIES NEEDED TO:**

- Be scalable or replicable
- Already be implemented or in the course of implementation
- Demonstrate innovation and potential for longterm transformational change
- Address climate change mitigation or adaptation
- Not be registered or have the intention to register as a clean development mechanism or joint implementation
- Be the result of an innovative partnership, which aims to achieve scalable, long-term results
- Deliver verifiable social and environmental benefits to an identified community that has been appropriately engaged in the development and implementation process

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**EVENTS:**

- Advisory Panel selects the Lighthouse Activities
- Lighthouse Activities announced
- Lighthouse Activities celebrated at United Nations Climate Change Conference

**DATES:**

- **18th**
- **6th**
- **20th**
Momentum for Change showcased the 2013 Lighthouse Activities during a series of special events at the Warsaw Climate Change Conference. Here are some of the highlights.

**NOVEMBER 13**

**Google Hangout with Christiana Figueres**
UNFCCC Executive Secretary Christiana Figueres hosted a live Google Hangout to celebrate the launch of the 2013 Momentum for Change Lighthouse Activities.

**NOVEMBER 18**

**Women’s Leadership on Climate Change**
This event showcased shining examples of climate action led by women, for women.

**NOVEMBER 20**

**United Nations Secretary-General Ban Ki-moon Rides a Bamboo Bicycle**
United Nations Secretary-General Ban Ki-moon and Christiana Figueres rode on and posed with two bamboo bicycles made by the Ghana Bamboo Bikes Initiative, a 2013 Lighthouse Activity.
A reduction of 16.5%

ICT has potential to reduce global GHG emissions by 9.1 GtCO2e by 2020

NOVEMBER 20
Financing for Climate Friendly Investment Event
This event showcased activities that are paving the way for more private financial sector investment in sustainable energy projects.

NOVEMBER 20
Showcase Event to Celebrate and Recognize the 2013 Lighthouse Activities
This exciting evening event was an Oscar-like celebration of the 2013 Lighthouse Activities with powerful videos, photography and a recognition ceremony.

NOVEMBER 21
Climate Solutions by and for the Urban Poor
This event showcased climate action by and for people living in poverty in urban centres.

NOVEMBER 21
Launch of ICT Solutions
This event launched a new partnership between the United Nations Climate Change secretariat and the Global e-Sustainability Initiative (GeSI) to underscore the critical role information and communications technology (ICT) plays in tackling climate change.
IN THE NEWS

The Momentum for Change initiative and the 2013 Lighthouse Activities received extensive media coverage in 2013. Here’s a snapshot.

**The New York Times**
Climate Crisis: Who Will Act?

**The Huffington Post**
’Momentum for Change’ is Building for Climate Solutions

**theguardian**
Seven African Climate Action Projects Honoured at UN Climate Summit

**International Business Times**
UN and Deutsche Telekom: Harnessing Technology Will Help Us Tackle Climate Change

**Thomson Reuters**
Local Action Against Climate Change a Beacon of Hope

**Dhaka Tribune**
Lighthouse Activities Honoured at COP19

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1. China’s CDM Fund Recognized by UN as Lighthouse Activity
   **Want China Times**

2. Project for Vulnerable Women to Adapt to Climate Change
   **News Afrique Informations**

3. IT Industry and UN Launch Fresh Drive to Tackle Climate Change
   **Business Green**

4. COP 19 y Momentum for Change
   **Excelsior**

5. Climate change: ICT is Latest Initiative to be Recognised by UNFCCC
   **News Afrique Informations**

6. African Water Facility Project Recognized During UN Climate Talks in Warsaw
   **All Africa**

7. UN Powers Tech-led Green Initiative
   **Business Cloud**

8. Women Stand up for Climate Change in Warsaw
   **Eco-Business**

9. Ban Ki-moon Gets on his Bike at Climate Talks
   **BBC**

10. Australian Company Wins U.N. Prize For Bringing Solar Power To The Poorest In India
    **Think Progress**
11. Bamboo Bikes Address Gender, Equity, Poverty and Climate Change  
*Huffington Post*

12. IFC Philippines’ Sustainable Energy Finance Program Wins UN Award for Climate-Change Innovations  
*Climate Investment Funds*

13. UN Climate Change Secretariat announces 2013 lighthouse activities  
*News Afrique Informations*

14. Momentum for Change: How a Groundswell for Climate Action is Building  
*Huffington Post UK*

15. ActionAid Bangladesh Wins UN Award  
*Dhaka Tribune*

16. Helping Women by Saving the Planet  
*The Daily Beast*

17. Interview with Christiana Figueres on the 2013 Lighthouse Activities  
*CNN: Quest Means Business*

18. IFAD Honoured With 2013 Momentum for Change Award for Climate Finance for Smallholder Farmers  
*All Africa*

19. Australian Mum’s Journey From the Skincare Trade to Internationally-awarded Climate Action Leader  
*Newsmaker*

20. From Mobile Solar to Low-risk Homes, Climate Action is Underway - UN  
*Thompson Reuters Foundation*

*Women News Network*

22. La ONU Premia Proyecto de Casas Sustentables en México  
*CNN Mexico*

23. Why COP 19 Rocked  
*Huffington Post UK*

24. BOMA Project Recognized by UN  
*The Manchester Journal*

25. UN Gives Recognition to Philippines Massive Financing Scheme on Sustainable Energy  
*Philippine Network of Environmental Journalists*

26. African Water Facility Liberia Sanitation Project Selected by UNFCCC as one of 2013 Outstanding Climate Innovations  
*Sierra Express Media*

27. Climate Change Impacts on Small Scale Farmers  
*This Day Live*

28. Dorset nonprofit gets U.N. recognition  
*Rutland Herald*
From small, entrepreneurial solutions to large-scale activities, each of the 17 Lighthouse Activities is a shining example of innovation, scalability and potential for long-term transformative change.

**Climate change initiatives around the world**
Momentum for Change received 252 applications in 2013. Of those applications, 123 were considered eligible. From the 123 eligible applications, 17 were selected as Lighthouse Activities.

**Record number of online visitors**
More than 280,000 people visited the Momentum for Change website in 2013, an increase of almost 300% since 2012. Momentum for Change launched a redesigned website in September, which has resulted in a steady increase of web traffic each month.

**Dramatic spike in news coverage**
Momentum for Change and the Lighthouse Activities received a record amount of media coverage in 2013. Increased communications and outreach efforts resulted in more press coverage, op-eds and social media buzz than ever before.
Strong focus on both mitigation and adaptation
A successful response to climate change must be twofold: the world needs to cut carbon emissions to reduce the threat of climate change and create highly resilient communities that are able to adapt to its effects. The 2013 Lighthouse Activities strike a good balance of initiatives that address mitigation or adaptation or both at the same time.

Distribution of 123 eligible activities by area of focus
Eligible activities in 2013 addressed climate change in several areas and sectors, including land use, energy, sustainable cities, transportation, water, waste and climate resilience. For more on how each of the 17 Lighthouse Activities cover these areas and sectors, please see their corresponding page number.
Momentum for Change will continue to recognize concrete solutions to address climate change in 2014. A new partnership with the Global e-Sustainability Initiative will underscore the critical role information and communications technology (ICT) plays in tackling climate change. ICT will be the fourth focus area for Momentum for Change and will be part of an even more robust package of Lighthouse Activities at the 2014 United Nations Climate Change Conference in Lima, Peru.
Momentum for Change’s newest focus area, Information and Communications Technology (ICT) Solutions, implemented in partnership with the Global e-Sustainability Initiative (GeSI), will underscore the critical role ICT plays in tackling climate change. Beginning in 2014, people, companies, institutions and governments can submit examples of how ICT addresses climate change and builds resilience. The most inspiring, innovative and successful activities will be selected as Momentum for Change Lighthouse Activities.

The increased use of these technologies can reduce energy use, cut greenhouse gas emissions and build resilience to the effects of climate change. According to GeSI’s recent report, SMARTer 2020, ICT can slash global greenhouse gas emissions by 16.5 per cent, saving USD 1.9 trillion in energy and fuel costs and cutting 9.1 gigatonnes of carbon emissions. This can be achieved in a variety of ways, including:

- Increasing the energy efficiency of telecommunications networks and data centres;
- Enabling smart grids, including enabling sources of renewable energy to connect with the utility grid;
- Reducing travel and transportation by substituting and optimizing existing travel and transportation systems;
- Using smart farming techniques, including weather monitoring and livestock management.

ICT has an essential role to play in putting the world on a low-carbon path. The way we do business and provide critical services is shaped by mobility and connectivity. As urban populations grow, ICT can help ensure that growth occurs in the most sustainable way possible.