

# Putting together the clean energy puzzle in developing countries

*Climate 2020 interviews Rachel Kyte, Special Representative of the UN Secretary-General and Chief Executive Officer, Sustainable Energy for All (SE4All)*

**D**eveloping countries have the dual task of improving social and economic conditions for their people while also creating clean energy systems. Is this an impossible challenge or a historic opportunity?

Rachel Kyte, Special Representative of the UN Secretary-General and CEO at Sustainable Energy for All (SE4All), says that “there is real reason for hope” if policy and finance move in the right direction. Kyte previously served as the World Bank’s Vice President and Special Envoy for Climate Change, up to the Paris conference of December 2015. She then moved to

stations connected to the grid. The way forward is for them to embrace distributed power generation, improving efficiency and expanding the network, she explains.

On the other side, there are developing nations, which need energy to develop their economies. Today, 1.2 billion people, especially in sub-Saharan Africa and Asia, still lack electricity. This is a huge limitation to their prospects. The solution here is to reach, as fast as possible, isolated populations adopting disruptive technologies. All these changes will have to occur alongside each other, says Kyte. But that won’t be easy.

***Energy productivity is a challenge for both developed and developing countries. For poorer economies it means being smart and accelerating change***

SE4All, the body that brokers partnerships to turn the Paris commitments into action.

In this interview with *Climate 2020*, she explains what needs to happen to meet development and climate goals, and clarifies that there is no one-size-fits-all solution.

On one side, says Kyte, there are developed countries, which have to uncouple their economies from fossil fuels. This has been happening slowly due to inert energy systems based on large power

“The problem is that in many countries the planning mindset is still biased on large projects,” she explains. “Institutions that manage electricity systems are focused on grid connectivity. Their management is often not deep enough or is under-resourced. There are vested interests, and new business models or self-owned companies are usually not in the room when energy policies are made.”



## **Same horizon, different solutions**

Despite the difficulties and the different starting points, there is a common horizon for developed and developing countries, Kyte emphasises. “The task to create energy systems that provide affordable electricity and keep global warming below 2°C is universal. Even in the UK, energy poverty is on the rise because people do not have efficient homes and cannot afford to pay for the power to stay warm.”



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The difference is in the solutions. “We need to bring together different pieces of the puzzle,” she argues. For some countries, this may mean promoting policies for the decarbonisation of the economy, while for others it may be improving the grid or covering the access gap. Depending on the needs and the available resources, each country should determine its options. In some cases, the solution may be found at regional level. “For Kenya, for instance, it

may be cheaper to buy hydro from Ethiopia and gas from Tanzania, while developing geothermal within the country,” she suggests.

“A major piece of the puzzle, often neglected, is energy productivity,” she continues. “This is a challenge for both developed and developing countries. For poorer economies it means being smart and accelerating change, using less foreign reserves to buy oil and less cash for emergency situations.”

▲ Gujarat, India. A worker at a salt pan stands beside her shelter, powered by a solar panel

#### Funding new business models

But who is going to fund these transformations? The International Renewable Energy Agency (IRENA) estimates that to meet the Paris climate commitments and the Sustainable Development Goals, investment in renewable energy must double by 2020

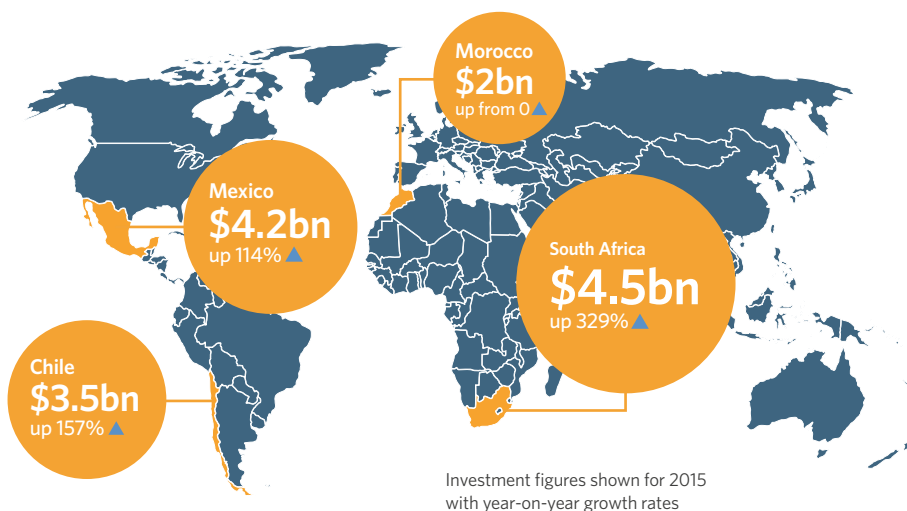
and more than triple by 2030. This means reaching \$500 billion per year up to 2020 and \$900 billion per year up to 2030. Developing markets with fast-growing energy demand will need the largest portion. Such scale of finance can only be supplied with public and private partnerships, and forging them is a goal of SE4All.

Kyte says that private capital will have to find new business models to support off-grid renewables, get the right risk profile and have the patience to deal with a new market. “We are listening very carefully to the demands of entrepreneurs. One of the biggest obstacles is access to finance in the local currency, a problem not unique to energy,” she explains.

Multilateral development banks have a role in helping the transition through the grid and supporting the creation of regional power pools. “All multilateral institutions have shifted their policies on fossil fuels, and coal is accepted only in exceptional circumstances,” Kyte says. There are also expectations from new development banks, like the Asian Infrastructure Investment Bank, which promises to be “lean, clean and green”.

Emerging economies with large coal reserves or a sizable portion of their energy coming from this fuel will be especially under pressure, as the Paris Agreement leaves

## Emerging markets for clean energy investment (2015)



Source: Bloomberg New Energy Finance

Coal is also not that cheap when the environmental costs and the growing risk of investment are taken into account. This is why development should be measured by indicators besides gross domestic product, says Kyte. She suggests natural capital accounting to assess the level of resources upon which economic activities are based, and accounting for carbon pollution too. “We have to put a price on carbon

\$329 billion. The increase was particularly significant in China, Africa, the US, Latin America and India. Countries like Mexico, Chile, South Africa and Morocco have recorded three-digit annual growth.

Kyte says: “There are many examples across the world of reforming investment in consideration of climate change. Some of the most innovative and promising evolutions are indeed in developing countries.” She mentions the United Arab Emirates, Chile, Morocco and Zambia as champions of innovation in structured finance; Kenya, Tanzania and India for new business models; Europe and North America for finance aggregators; Bangladesh for the scale of microcredit.

“The spread of renewable energy is decreasing its costs. From this perspective, technology has done us a huge favour. Now it is up to policy and finance to catch up,” she concludes. ●

## We cannot agree on the Paris ambition... and then continue as usual. For public institutions and the international community, this will be a real test

little room for fossil fuels in the energy mix. “Countries dependent on coal will need technological and financial support to ensure other viable options,” Kyte says. “We are in an energy transition, so there is a role for cleaner fossil fuels and efficient use of gas. But we cannot agree on the Paris ambition, promise to deliver nationally determined contributions to minimise carbon emissions, and then continue as usual. For public institutions and the international community, this will be a real test.”

and stop mismanaging the economy by subsidising fossil fuels,” she says. “Even under traditional parameters, we are not managing the economy for the outcomes we want.”

### Reasons for optimism

The road ahead is steep, but things are evolving fast and Kyte is optimistic. Analysis by Bloomberg New Energy Finance shows that in 2015 investment in renewables surged to unprecedented levels, reaching

*Sustainable Energy for All is a global platform created in 2011 by UN Secretary-General Ban Ki-moon to mobilise action and achieve three goals by 2030: “ensuring universal access to modern energy services; doubling the global rate of improvement in energy efficiency; and doubling the share of renewable energy in the global energy mix.”*