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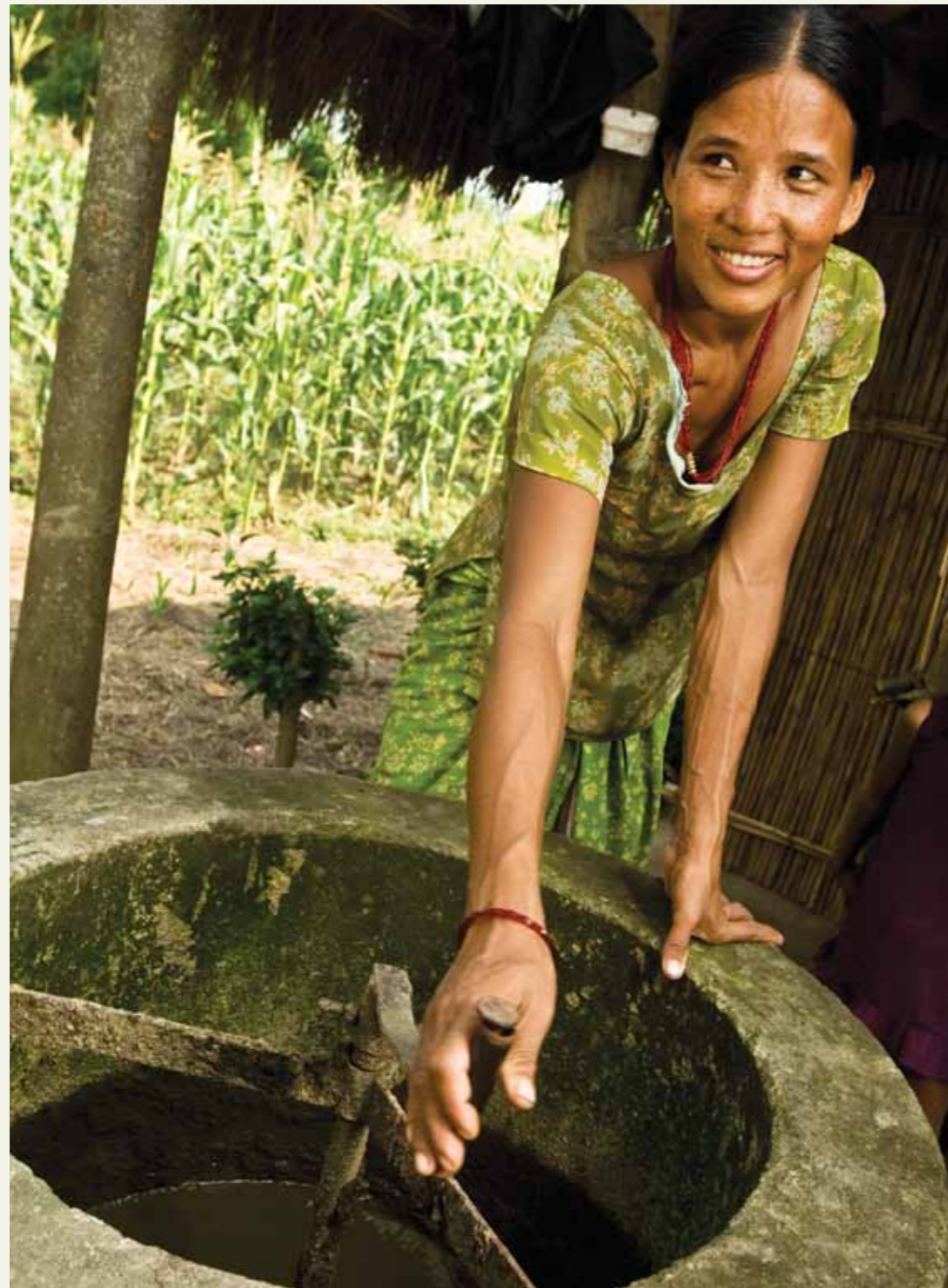
CAMPAIGN  
BRIEF

2013

# SEIZE YOUR POWER

INVESTING IN  
A SUSTAINABLE  
FUTURE





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Woman, Bio gas village, Chitwan, Nepal

# CRITICAL JUNCTURE

Humanity is waking up to the damage that fossil fuels inflict on our planet, and financial institutions are becoming aware of the economic unsustainability of our addiction to coal, oil and gas. This is taking place at a critical juncture, when investors' decisions will affect our world for generations to come. Against this backdrop, WWF is launching a global public campaign, challenging investors to commit in the next 12 months to an additional US\$40 billion for renewable energy by 2017 and to not invest in fossil fuels, particularly coal. This amount will come from new and influential actors as a starting point to go beyond business-as-usual investments.

**“INVESTING IN OIL, COAL, AND GAS IS NO LONGER AN ACCEPTABLE WAY TO FUEL GROWTH.”**

JOHN PODESTA,  
FOUNDER OF THE  
CENTER FOR  
AMERICAN PROGRESS

Major effort is required to reach the US\$1.4 trillion<sup>i</sup> worth of investments that must be made in renewable energy in the next four years, to help put our planet—and our financial systems—onto a course of sustainable recovery. WWF calls on financial leaders to publicly commit to this goal, and for everyone invested in the financial system to thoroughly scrutinize their energy investments.

It is a scientific reality that fossil fuels pose an unprecedented threat to nature and humanity alike. What is now being discussed is that renewable energy can meet the world's needs. Clean, sustainable energy can stabilize financial markets, significantly reduce volatility, create more jobs and increase global wealth in a more equitable way. Governments know this. So do energy companies, who are lobbying to protect their own – often misguided – financial interests in fossil fuels.

The window of opportunity for us to make investment decisions towards a positive, sustainable energy future is closing fast. The International Energy Agency (IEA)'s 2012 World Energy Outlook warns that if we do not take action quickly on our energy choices, all allowable CO<sub>2</sub> emissions could be locked in by existing fossil fuel energy infrastructure by 2017<sup>ii</sup>. Only significant energy efficiency advances could delay this lock-in to 2022. John Podesta, founder of the Center for American Progress, made this clear when he told WWF, “Investing in oil, coal, and gas is no longer an acceptable way to fuel growth. The only responsible course of action for our planet and our economy is a total transformation of global energy systems from highly polluting fossil fuels to clean, renewable energy. That transformation must start now.”

We cannot delay divesting from high-carbon fuels and investing in renewable energy. This urgency has inspired WWF to challenge targeted financial institutions, development banks and pension funds to commit by June 2014 to placing at least US\$40 billion of new investments – beyond business as usual – into renewable energy and the commitment not to invest in fossil fuels, particularly coal.



<sup>i</sup> Internal calculation, WWF. Based on original calculations from: Edenhofer O et al. Intergovernmental Panel on Climate Change. 2011. *Special Report on Renewable Energy Sources and Climate Change Mitigation*. Working Group III. ([http://srren.ipcc-wg3.de/report/IPCC\\_SRREN\\_Full\\_Report.pdf](http://srren.ipcc-wg3.de/report/IPCC_SRREN_Full_Report.pdf)). WWF considered the upper and lower limits of the two investment scenarios of the IPCC (IPCC SRREN Report 2011). From these two scenarios WWF built a simple average mean value of US\$3,650 billion for estimated decadal (2011 – 2020) global cumulative renewable energy investments. Calculating investments made to date and assuming increasing annual investments between 2013-2020, using a standardized growth rate, the necessary level of investment for the 2014 - 2017 period is US\$1.429 trillion.

<sup>ii</sup> International Energy Agency (IEA). 2012. *World Energy Outlook 2012. Executive summary*. 3 pp. (<http://www.iea.org/publications/freepublications/publication/English.pdf>)

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**“INVESTORS  
HAVE AN ASSET  
THAT THEY  
THINK IS WORTH  
TRILLIONS, AND  
IT’S NOT.”**

**MICHAEL LIEBREICH,  
CEO OF BLOOMBERG  
NEW ENERGY FINANCE**

This is an achievable goal, given the growing recognition of renewable energy’s greater value of sustainability. International investors have spent over US\$1 trillion on renewable energy, energy efficiency and smart energy technologies in less than a decade<sup>iii</sup>. More than a quarter of that was spent in 2011, the first year that renewable energy investments surpassed those in power plants for fossil fuels<sup>iv</sup>. While the scale of investments has remained steady, we must go much further.

Looking at the latest Intergovernmental Panel on Climate Change (IPCC) analysis, we calculate that US\$1.4 trillion of renewable energy investment is needed between now and 2017 to help curb dangerous climate change. Bloomberg New Energy Finance projects business-as-usual renewable energy investments of about US\$250 billion annually over the next four years. That will bring us only partway there. We believe that our goal of US\$40 billion, particularly if coming from new and influential actors, will help tip the balance, raise awareness, and take us closer to where we need to be in the next four years, while contributing to greater needs over the long-term. It is the responsibility of every financial decision-maker and stakeholder to carefully consider how their investments are shaping the direction of the energy industry. Investments in coal, oil, and gas are still growing and are four times greater than those in renewable energy – this balance has to change. We must substantially reduce and phase out those investments.

In addition to a deepening appreciation of renewable energy, concern is spreading within the financial community about fossil-fuel companies whose key assets – coal, oil or gas reserves – are already too plentiful to burn.



© GLOBAL WARMING IMAGES / WWF-CANON

Coal reserves at a coal fired power station in Nottinghamshire, UK

<sup>iii</sup> Bloomberg New Energy Finance. December 6, 2011. *Clean energy attracts its trillionth dollar*. Press release. (<http://bnef.com/Downloads/pressreleases/176/pdffile/>)

<sup>iv</sup> Frankfurt School of Finance & Management gGmbH 2012. UNEP Collaborating Centre for Climate & Sustainable Energy Finance. 2012. *Global Trends in Renewable Energy Investment 2012*. (<http://fs-unesp-centre.org/publications/global-trends-renewable-energy-investment-2012>)

## UNBURNABLE RESERVES

What happens when companies base their value on assets they cannot rationally or ethically use or sell? As Michael Liebreich, CEO of Bloomberg New Energy Finance said to us, it is simple:

“Investors have an asset that they think is worth trillions, and it’s not.”

The planet is facing a carbon bubble, or what he refers to as a “fossil fuel subprime asset problem.” In short, companies already own more reserves of high-carbon fuel than the world can possibly use.

*“It’s saying there’s a huge systemic risk there, that mainstream investors have to get a grip with it, no matter how hard it is. We simply cannot burn those reserves in order to derive a financial return, [because it] would dramatically destabilize the whole of the life support system of the planet. It’s just not something you can do.”*

James Cameron,  
Climate Change Capital



According to *Unburnable Carbon*, an influential report from the respected London-based Carbon Tracker Initiative, if the world is to stay within the internationally-accepted 2°C limit for global warming, we have already used more than one-third of our 50-year carbon budget in this first half-century<sup>v</sup>. Only 20 per cent of the remaining fossil fuel reserves can be burned safely, while the rest—a huge majority— must stay in the ground as stranded assets. The IEA announced similar findings, stating: “No more than one-third of proven reserves of fossil fuels can be consumed prior to 2050 if the world is to achieve the 2°C goal...<sup>vi</sup>” The assessment of reserves to be left untouched does not account for newly confirmed shale gas and shale oil resources<sup>vii</sup>, which add about 100 per cent and 20 per cent to the proven reserves of conventional gas and oil reserves respectively. Based on the limits of the atmosphere, they too must stay in the ground.

A recent HSBC Global Research report estimated that this posed a risk of up to 60 per cent of market capitalization—a number that could upend markets from London to Moscow<sup>viii</sup>. “We doubt the market is pricing in the risk of a loss of value from this issue,” the bank’s analysts wrote.

James Cameron, chairman of the investment manager Climate Change Capital, describes Carbon Tracker’s findings as a potential game-changer for investors. “It’s saying there’s a huge systemic risk there, that mainstream investors have to get a grip with it, no matter how hard it is. We simply cannot burn those reserves in order to derive a financial return, [because it] would dramatically destabilize the whole of the life support system of the planet. It’s just not something you can do.”

Cameron was one of the few asset managers, owners or insurance brokers who were prepared to discuss the danger of fossil fuel investments on record. He acknowledges it takes courage to invest in innovative companies with growth potential, noting that no renewable energy companies are yet large enough to provide the stability and dividend yields of fossil-fuel companies. Moreover, he adds, establishing a foothold in the energy industry is difficult: “These are long-term investments with a structure that favours those that are already there,” he said. “And it’s skillfully played by incumbents who are fantastically good at keeping out competition.”

<sup>v</sup> Carbon Tracker Initiative. 2011. *Unburnable Carbon – Are the world’s financial markets carrying a carbon bubble?* (<http://www.carbontracker.org/wp-content/uploads/downloads/2011/07/Unburnable-Carbon-Full-rev2.pdf>)

<sup>vi</sup> International Energy Agency (IEA). 2012. *World Energy Outlook 2012. Executive summary*. 3 pp. (<http://www.iea.org/publications/freepublications/publication/English.pdf>)

<sup>vii</sup> US Energy Information Administration. June 13, 2013. *Technically Recoverable Shale Oil and Shale Gas Resources: An Assessment of 137 Shale Formations in 41 Countries Outside the United States*. (<http://www.eia.gov/analysis/studies/worldshalegas/>)

<sup>viii</sup> Spedding, Paul, Mehta, Kirtan, Robins, Nick. HSBC Global Research. January 25, 2013. *Oil and Carbon revisited. Value at risk from unburnable reserves*. 4 pp. (<http://gofossilfree.org/files/2013/02/HSBCOilJan13.pdf>)

**“DO THEIR DUTIES LIE IN SEEING ALL THE RESERVES DEVELOPED BECAUSE THEY HAVE TO MAXIMIZE THEIR RETURNS? IF SO WE’RE GOING TO GO BEYOND 6°C.”**

**MARK CAMPANALE,  
CO-FOUNDER,  
CARBON TRACKER**

Jens Peers, CIO Sustainable Equities of Mirova (a division of Natixis, of French Group BPCE), avoids high-carbon investments, yet emphasized the influence that asset owners can take to the boardrooms of fossil fuel companies. “If you are an investor in these companies you should use your power as a shareholder to encourage the development of investment in clean alternatives by saying that you don’t want your money to be used to look for new reserves.”

He also said that regulators should push these companies to disclose the amount of carbon dioxide embedded in their reserves, so that investors can make better-informed decisions about what can or cannot be sold. “Those [reserves] that can’t shouldn’t be part of the valuation. That’s currently not the case today.”

Carbon Tracker’s co-founder, Mark Campanale, said fund managers are being forced to take a hard look at their role. “Do their duties lie in seeing all the reserves developed because they have to maximize their returns? If so we’re going to go beyond 6°C. And then they will face significant capital losses in other areas of their portfolio—their insurance exposure, agricultural investments, infrastructure investments. Particularly real estate, because at that level of warming you lose Manhattan and London.” If, on the other hand, their fiduciary duty is to maximize well-being and what Campanale called a world worth retiring into, pension fund managers and other asset owners should use their power to change the *status quo*. He said many are still waiting, “thinking they can jump off the train before it goes over the cliff.”

When economic and scientific analyses demonstrate that the existing reserves of fossil fuels are more than the planet can bear, it would seem hard to justify greater investment into expanding those reserves. Nonetheless, companies spent close to US\$674 billion in 2012 doing just that<sup>ix</sup>—money that could have been invested in developing alternative energies we will actually be able to use.



© WWF-CANON / SIMON RAWLES

Resident of Long Pahangai, and pipe connecting the village with the Micro Hydro Project, Borneo

<sup>ix</sup> Carbon Tracker Initiative. 2013. *Unburnable Carbon 2013: Wasted capital and stranded assets*. 4pp. (<http://carbontracker.live.kiln.it/Unburnable-Carbon-2-Web-Version.pdf>)

## THE ARGUMENT FOR RENEWABLES

**“WE NEED TO MORE THAN DOUBLE OUR CAPACITY IN ORDER TO BE ABLE TO PROVIDE ENERGY TO EVERYONE, AND TO ACHIEVE THAT WE WILL DEPEND LARGELY ON RENEWABLES.”**

**TARUN KAPOOR,  
NATIONAL SOLAR MISSION,  
GOVERNMENT OF INDIA**



“We envision a day in the not-so-distant future when humanity will no longer need to burn dirty and polluting fossil fuels,” said Jim Leape, WWF International Director General. “Abundant and clean energy sources like wind and solar can meet all of our

needs safely and cheaply for a future that is better for people and for the planet.” Indeed, the technical potential for renewables is substantially higher than the world’s energy demands, both now and in the future.

Renewables are still perceived to be more expensive than fossil fuels, but today that’s no longer the case in many regions. As technology and infrastructure improve, the costs keep falling. By 2020, wind energy is expected to be cheaper than conventional power generation, while solar power already is at par in parts of the world. Already in Australia, Bloomberg New Energy Finance notes, unsubsidized wind energy is cheaper than electricity from new-build coal- and gas-fired power stations\* – even before accounting for externalities such as cost of carbon and other pollution. Decentralized solar power is competitive in some regions, providing off-grid energy supply in many developing countries. Geothermal is already cost competitive with coal in the Philippines, a trend expected to accelerate in Southeast Asia.

Moreover, the market price of fossil fuels does not take into account the social or environmental costs, their effect on the climate, nor the huge subsidies they receive. When WWF spoke with Dr Fatih Birol, Chief Economist and Director of Global Energy Economics at the IEA, he said, “Worldwide we have over a half trillion US dollars in subsidies for fossil fuels. That means that in many countries, the prices of coal, oil and gas have been artificially lowered by governments, which makes it difficult for renewable investments to compete.” But when we look at the big picture of fossil fuel subsidies – including producer subsidies, carbon externalities, and artificially reduced value-added taxes globally – that figure is closer to US\$2 trillion annually, according to the International Monetary Fund (IMF), equivalent to almost 10 per cent of all state budgets.

The negative impact of investment in fossil fuels is increasingly clear. The World Health Organization estimates that climate change now causes more than 150,000 premature deaths each year<sup>xi</sup>. In 2012 alone, Hurricane Sandy had a price tag of US\$65 billion, while the US drought cost US\$35 billion<sup>xii</sup>. As the world starts to realize the long-term financial value of biodiversity, an analysis in *Nature* magazine should come as a further wake-up call: up to one-third of all animal species could be “committed to extinction” because of global warming<sup>xiii</sup>. With robust social and environmental safeguards, the world can ensure a sustainable energy source and avoid these impacts.

Dr Birol emphasized that governments must send the right message to investors so that they shift their money to renewables – by creating incentives, stable policy and finance

\* Bloomberg New Energy Finance. February 7, 2013. *Renewable energy now cheaper than new fossil fuels in Australia*. Press release. (<http://bnef.com/Downloads/pressreleases/276/pdf/276.pdf>)

<sup>xi</sup> World Health Organization. The Health and Environment Linkages Initiative (HELI). 2013. Climate change. (<http://www.who.int/heli/risks/climate/climatechange/en/>) Accessed July 2013.

<sup>xii</sup> AON Benfield. 2012. *Annual Global Climate and Catastrophe Report. Impact Forecasting – 2012*. 5 pp. ([http://thoughtleadership.aonbenfield.com/Documents/20130124\\_if\\_annual\\_global\\_climate\\_catastrophe\\_report.pdf](http://thoughtleadership.aonbenfield.com/Documents/20130124_if_annual_global_climate_catastrophe_report.pdf))

<sup>xiii</sup> Thomas CD et al. *Nature*. January 8, 2004. Jan 8. Extinction risk from climate change. Abstract. 427(6970):145-8. (<http://www.ncbi.nlm.nih.gov/pubmed/14712274>)

**“THE RIGHT PATH IS MOVING THE WORLD TO SUSTAINABLE AND CLEAN RENEWABLE ENERGY, WHILE ENSURING A FAIR AND JUST TRANSITION IS MADE FOR THE PEOPLE WITHIN INDUSTRIES MOST IMPACTED.”**

**SHARAN BURROW,  
GENERAL SECRETARY  
OF THE INTERNATIONAL  
TRADE UNION  
CONFEDERATION**

frameworks. Best known examples of these are carbon pricing and feed-in tariffs. There are strong policy reasons why governments would do so: renewable energy sources could offer long-term financial and environmental security, whereas fossil fuels do not. Moreover, local energy sources for net energy importers can give nations greater self-sufficiency, meaning less exposure to energy price volatility. This can mean lower costs for countries like Kenya and Tanzania that import power from fossil fuels, spending US\$2.1 billion<sup>xiv</sup> and US\$1.5 billion<sup>xiv</sup> each year respectively according to the International Renewable Energy Agency.

Switching to renewable energies will not limit market growth. Renewable energy provides more jobs per unit of energy. In fact, renewables already contribute to employment, accounting for close to six million jobs worldwide, reported in the Renewables 2013 Global Status Report. In India, Tarun Kapoor, Joint Secretary at the Ministry of New and Renewable Energy, reminds us that solar energy has created about 100,000 jobs in his country alone. In Germany, the *Energiewende* has secured about 350,000 jobs in the renewable energy supply chain, more than twice as many than in all other energy industries combined. In comparison, the 20 largest oil and gas companies employ 2 million people worldwide.

As John Podesta told us, “The fact that clean tech jobs are growing faster than other sectors – even healthcare – shows that an economy based on new ambitious investments in sustainable technologies is both practical and necessary.” Sharan Burrow, General Secretary of the International Trade Union Confederation, agreed that renewable energy will create jobs, telling WWF that “The right path is moving the world to sustainable and clean renewable energy, while ensuring a fair and just transition is made for the people within industries most impacted.”



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Technician fitting solar panel on a corrugated iron rooftop, Miono region, Tanzania, Africa.

<sup>xiv</sup> International Renewable Energy Agency. 2009. Renewable Energy Country Profile: Kenya. 1 pp. (<http://www.irena.org/REmaps/countryprofiles/africa/Kenya.pdf#zoom=75>)

<sup>xv</sup> International Renewable Energy Agency. 2009. Renewable Energy Country Profile: United Republic of Tanzania. 1 pp. (<http://www.irena.org/REmaps/countryprofiles/africa/tanzania.pdf#zoom=75>)

## SIGNS OF CHANGE

There is a definite momentum towards renewables. Several cities are leading the trend. This is significant as cities are responsible for more than two-thirds of carbon dioxide emissions<sup>xvi</sup>, but also because cities can swiftly change their investment strategies while also engaging their constituencies in driving that change.

**“IF WE CAN, AS A GOVERNMENT, ENABLE MORE RENEWABLE ENERGY INVESTMENT, THEN WE WILL. IN FACT, WE ARE.”**

**ELIZABETH DIPUO PETERS,  
ENERGY MINISTER,  
SOUTH AFRICA**



As former Toronto Mayor and incoming CEO of WWF Canada David Miller pointed out, “Cities are financial leaders in their own right. They can move their own investments, clean up their pension funds, and – perhaps most importantly – bring their citizens along.”

Many high-profile cities have chosen the renewable energy path. Ten American cities recently asked their pension funds to divest from fossil fuel companies<sup>xvii</sup>. This list includes Seattle, Ithaca, Richmond – home to an oil refinery that’s California’s biggest emitter of greenhouse gases – and San Francisco, which is working towards a goal of 100 per cent renewable energy within a decade<sup>xviii</sup>. Approximately 140 countries now have renewable energy targets, providing more certainty for investors.

The trend towards renewables has also been notable in emerging economies, which accounted for almost half of total clean energy investments in 2012. Developing countries need to power their growth, while considering that their energy choices will impact pollution, health, security, agriculture, water availability and the cost of frequent and extreme weather events.

Developing countries already seeing serious moves toward renewable energies include: China, India, Brazil, South Africa, Uganda, Madagascar, Tunisia, Mexico, Morocco and the Philippines<sup>xix</sup>. Even oil-rich Saudi Arabia is planning to harness power from the sun and wind. Many have spectacular potential to use alternative energy sources. South Africa stood out in 2012 by investing about 1 per cent of its national GDP into renewable energy<sup>xx</sup>. As Energy Minister Elizabeth Dipuo Peters told us, “If we can, as a government, enable more renewable energy investment, then we will. In fact, we are. South Africa has already committed to strong renewable energy policies – that means a strong future for all of us. South Africa will work hard to realize President Jacob Zuma’s call “to prove to the world and ourselves that Renewable Energy can be a base-load.””

China, the world’s highest emitter of greenhouse gases—and where heavy air pollution has made global headlines— was also responsible for one-quarter of global investment in renewable energy last year, close to US\$70 billion<sup>xxi</sup>. Michael Liebreich said that until recently the country was constructing twice as many new coal-fired power stations as it is now. “More than half of what China is building already is clean, and people don’t realize this.” Economics is the one reason for this trend—by investing in alternative energy the Chinese are positioning themselves to be competitive well into the future.

<sup>xvi</sup> C40 Cities. Climate Leadership Group. *Why Cities?* (<http://www.c40cities.org/whycities>) Accessed July 2013.

<sup>xvii</sup> Goldenberg S. The Guardian. April 25, 2013. *San Francisco and Seattle lead US cities pulling funds from fossil fuel firms.* (<http://www.guardian.co.uk/environment/2013/apr/25/us-cities-climate-divestment-fossil-fuels>)

<sup>xviii</sup> SF Environment. A Department of the City and County of San Francisco. *San Francisco Mayor’s Renewable Energy Task Force Recommendations Report.* (<http://www.sfenvironment.org/download/san-francisco-mayors-renewable-energy-task-force-recommendations-report>) Accessed July 2013.

<sup>xix</sup> Renewable Energy Policy Network – REN21. 2013. *Renewables 2013 Global Status Report.* (<http://www.ren21.net/REN21Activities/GlobalStatusReport.aspx>)

<sup>xx</sup> The PEW Charitable Trusts. 2013. *Who’s Winning the Clean Energy Race?* 2012 Edition. 18 pp. (<http://www.pewenvironment.org/uploadedFiles/PEG/Publications/Report/-clenG20-Report-2012-Digital.pdf>)

<sup>xxi</sup> Bloomberg New Energy Finance. January 14, 2013. *New Investment in clean energy fell 11% in 2012.* Press release. (<http://bnef.com/Downloads/pressreleases/260/pdf/1/>)

India has become the world's fourth largest carbon emitter<sup>xxii</sup>, but is also ranked fifth in the world for its renewable-energy based power capacity<sup>xxiii</sup>. "We need to more than double our capacity in order to be able to provide energy to everyone," Joint Secretary Tarun Kapoor of the Government of India's National Solar Mission explained, "and to achieve that we will depend largely on renewables."

For governments who are considering how to provide power to the 1.4 billion people around the world who currently don't have electricity<sup>xxiv</sup>, renewables offer a financially and environmentally sound road to a better future. The International Monetary Fund estimates that if we move just US\$50 billion annually into clean technology investments and support in developing countries, we will overcome energy poverty.

<sup>xxii</sup> Le Quéré C *et al.* Earth System Science Data. 2012. The global carbon budget 1959-2011. Discussion paper. 5, 1107-1157. 1132 pp. (<http://www.earth-syst-sci-data-discuss.net/5/1107/2012/essdd-5-1107-2012.pdf>)

<sup>xxiii</sup> Ramachandra TV, Jain R, Krishnadas G. Renewable and Sustainable Energy Reviews. 2011. *Hotspots of solar potential in India*. Introduction. 15, 3178-3186. ([http://www.ces.iisc.ernet.in/energy/paper/hotspots\\_solar\\_potential/introduction.htm](http://www.ces.iisc.ernet.in/energy/paper/hotspots_solar_potential/introduction.htm))

<sup>xxiv</sup> United Nations Development Programme. *Our work, Environment & Energy, Focus Areas, Sustainable Energy, Universal access to modern energy for the poor*. ([http://www.undp.org/content/undp/en/home/ourwork/environmentandenergy/focus\\_areas/sustainable-energy/universal-access](http://www.undp.org/content/undp/en/home/ourwork/environmentandenergy/focus_areas/sustainable-energy/universal-access)) Accessed July 2013.

## WWF'S PERSPECTIVE

**Climate change is threatening up to 1/3 of animal species with extinction. While the impacts of global warming are only just starting, the decisions that are influencing those impacts are being made now.**

Climate change threatens to undo everything that conservation organizations like WWF have achieved over the last half-century. Polar bears may make the headlines, but in reality very few species will be unaffected by a changing climate.

Many species could become extinct. Even entire ecosystems – such as coral reefs, mountain habitats, and large blocks of tropical rainforests such as the Amazon – could completely disappear. Some plants and animals that have adapted to their environment over millions of years are vulnerable to even slight changes in temperature and rainfall. Warming and acidifying seas threaten coral reefs and krill – the basis of the marine food chain in many parts of the world. Large mammals like whales may be forced to travel further in search of food, often leaving the safety of the protected areas that WWF and others have fought so hard to secure.

Exploration for oil, coal and gas – and the transportation and infrastructure associated with it – is also a threat to many species. These activities include coal port expansion on the Great Barrier Reef, oil exploration on the edge of the Congo's mountain gorilla habitat, and crude oil marine export off the lush west coast of Canada. In each of these places, we risk wildlife being a part of the price we pay for our current investment decisions. It doesn't have to be this way.

Human beings will not be immune to the consequences of a changing climate. WWF's mission is to protect the magnificent array of living things that inhabit our planet and to create a healthy and prosperous future in which humans live in harmony with nature. Solving the energy crisis is fundamental to this, whatever tough choices and challenges it brings.

# SEIZE YOUR POWER

Every day massive investments flow into various energy projects, and we will live with the consequences of where that money goes for decades to come. Right now we have the opportunity to put the brakes on climate change by choosing between renewable or fossil-fuel driven energy.

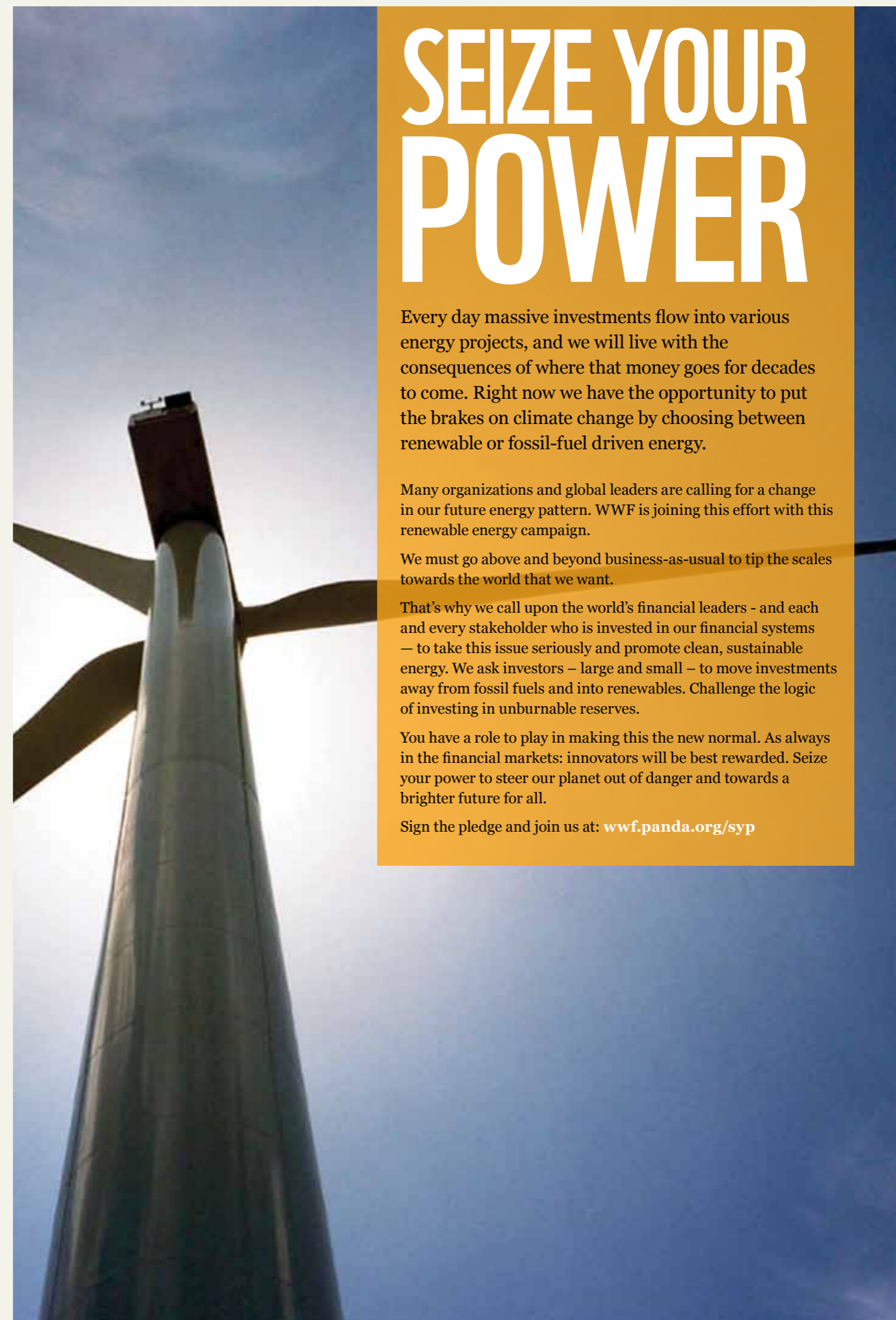
Many organizations and global leaders are calling for a change in our future energy pattern. WWF is joining this effort with this renewable energy campaign.

We must go above and beyond business-as-usual to tip the scales towards the world that we want.

That's why we call upon the world's financial leaders - and each and every stakeholder who is invested in our financial systems – to take this issue seriously and promote clean, sustainable energy. We ask investors – large and small – to move investments away from fossil fuels and into renewables. Challenge the logic of investing in unburnable reserves.

You have a role to play in making this the new normal. As always in the financial markets: innovators will be best rewarded. Seize your power to steer our planet out of danger and towards a brighter future for all.

Sign the pledge and join us at: [wwf.panda.org/syp](http://wwf.panda.org/syp)



# Why energy finance matters

100%  
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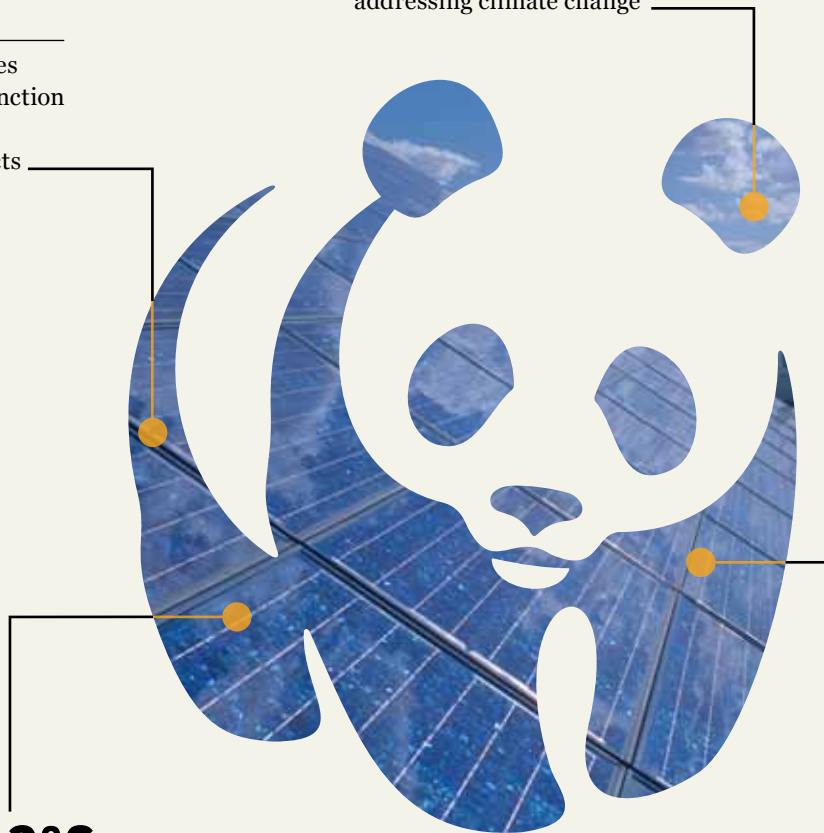


## US\$1.4 TRILLION

Approximate amount of renewable energy investments needed in the next four years to sufficiently start addressing climate change

## 1/3

Animal species at risk of extinction from climate change impacts



## 2°C

Levels of global average temperature rise beyond which scientists expect extremely bad and probably irreversible impacts of climate change

## 2/3

Portion of all remaining fossil fuel reserves must stay in the ground if we are to avoid dangerous climate change



### Why we are here

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

[panda.org](http://panda.org)