


Tackling poverty through renewable energy

NEW ENERGY

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THE QUARTERLY MAGAZINE FROM RENEWABLE WORLD



PROFESSOR ERIC ODADA FROM THE
UNIVERSITY OF NAIROBI ON THE ROLE
OF RENEWABLES IN AFRICA

RAM PUMP TECHNOLOGY TO BRING
CLEAN WATER TO NEPALESE
COMMUNITY

CHALLENGE YOURSELF IN 2011
AND SIGN UP FOR A RENEWABLE
WORLD EVENT

...and more



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Renewable
World

tackling poverty through renewable energy

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Friends

of Renewable World



editorial

Making our vision a reality in 2011



Neil Jeffery, CEO at Renewable World outlines the organisation's vision to scale up its work in 2011, providing renewable energy to more areas of market failure in Africa, Asia and Latin America.

NEIL JEFFERY

- RENEWABLE WORLD
- CHIEF EXECUTIVE
- OFFICER

Renewable World has had an extremely full, successful and rewarding year: 2010 was a year of positive transition for the organisation with the establishment of programmes in Central America, East Africa and South Asia that have transformed our ability to achieve change in the lives of extremely poor rural communities. In 2011 we look forward to working more effectively and with greater results, ensuring we are able to enhance, improve and multiply the benefits that affordable renewable energy can bring to isolated poor consumers.

I would like to pay tribute to the impressive contribution of Jo Kelly, Programme Development Director, and Melanie Matthews, Marketing Manager, and the other Renewable World staff in achieving this incredible leap forward in the organisation's thinking and practical activities on the ground. The staff have worked with determination and enterprising skill to define and enact appropriate and inspiring programme activities in the developing world.

Renewable World has a unique contribution to make to provision of affordable energy in Africa, Asia and Latin America, which is highlighted by Professor Eric Odada in his thought-provoking analysis on the opportunities for renewable energy in the future development of the African continent. We seek to work in communities and with

populations where private companies would be unable to provide energy because they cannot charge a price that would enable them to recoup their up-front development and marketing costs.

This situation is one of 'market failure': Renewable World seeks to stimulate market activity by covering the up-front capital cost of establishing small scale off-grid wind, hydro or solar systems and allowing the 'owners' of that system (a community, cooperative or individual) to charge for electricity at a price point that is appropriate for poor isolated end-users, typically \$2-3 a month. 100% of that income can then be used for the maintenance and upkeep of the electricity source, thus guaranteeing its sustainability over a 20-25 year life time. We are working hard to achieve this vision and this edition's programme section highlights this fact by describing our new programme activities in South Asia, with local partner CRT.

I would like to finish by saying that none of the achievements of 2010, nor the implementation of our transformative vision, would be possible without the support of our Friends and supporters in the renewable energy industry. Most notable has been the incredible contribution to Renewable World of Louis FitzGerald, former co-owner of Airtricity, and trade associations RenewableUK and EWEA, headed by Maria McCaffery and Christian Kjaer respectively, who have worked tirelessly to take the organisation to a position where it can achieve real impact in the lives of poor communities.

I call upon all those involved in the industry to emulate their contribution in 2011. Please read on about the many ways that you or your company can play a role in our enterprising and inspiring work.

MORE INFORMATION...



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Renewables in Africa



Eric Odada is Professor of Geology at the University of Nairobi and Director of the United Nations Regional Centre for Integrated Water Resources Management (IWRM). He is currently undertaking research for two UN departments, UNEP and FAO on the impact of environmental change on water resources and agriculture in Africa.

PROFESSOR ERIC ODADA

UNIVERSITY OF NAIROBI
PROFESSOR OF GEOLOGY

WHAT DO YOU SEE AS THE ROLE OF RENEWABLES IN AFRICA?

Africa has enormous potential for renewable energy and energy efficiency technologies. It has abundant sources of biomass, geothermal, hydro, wind and solar power which can be exploited for benefits which promote both economic growth and development. Yet the vast majority of African people continue to live without access to clean, modern energy supplies.

Most of Africa's population live in rural areas and uses various forms of biomass (mainly firewood and charcoal), which not only deplete natural resources but produce fumes which are responsible for thousands of respiratory related deaths a year. Deployment of micro generation renewable energy systems could provide a viable solution to rural energy poverty.

WHAT OPPORTUNITIES COULD RENEWABLE ENERGY PROVIDE?

Renewable energy offers great opportunities for employment in Africa, through building a critical mass of locally trained man power with relevant skills such as the analytical expertise to provide comprehensive evaluations of available renewable energy sources in the region and options for utilising them.

Renewable energy also offers an opportunity to develop appropriate local solutions, using locally available resources which will help to support health and education services and well as households and enterprises. For example, community-based renewable energy systems like the ones Renewable World promotes could provide sufficient energy to power freezers in the fishing villages on the shores of Lake Victoria. This would allow fishermen to preserve

their catch for longer, enabling them to negotiate better prices at market and improve their economic development beyond subsistence levels.

DO YOU THINK THE GOVERNMENT HAS A ROLE TO PLAY?

All African governments need to pursue innovative policy options for the promotion of renewables. Such policies should be designed to demonstrate the economic and environmental benefits of renewable technologies and propose short and medium term policy initiatives that would engender large scale dissemination of renewables. Priority should be given to highlighting the real and tangible economic benefits such as job creation and income generation that renewable energy programmes can deliver to the region.

The African Union has an energy initiative that aims at developing the vast African energy resources in a sustainable manner to ensure increased productivity, wealth creation and improved quality of life for all Africans.

WHAT IS NEEDED TO MAKE RENEWABLE ENERGY INITIATIVES A REALITY IN AFRICA?

Renewable resources and technologies remain largely unexploited in Africa due to financial capacity and political and market based barriers. Aside from supportive policy frameworks, new and flexible financing mechanisms need to be established. Such innovative and sustainable financing programmes for renewable energy projects could be delivered through a modest tax on fossil fuels to credit schemes specifically aimed at developing renewable energy agencies. UNFCCC mechanisms implemented under the Kyoto Protocol such as CDM could also provide valuable project funds.

Renewable World hopes to draw on the expertise of Professor Eric Odada to scale up its work in Africa and focus on its plans to bring renewable energy to rural communities in Kenya in future editions.

“RENEWABLE RESOURCES AND TECHNOLOGIES REMAIN LARGELY UNEXPLOITED IN AFRICA DUE TO FINANCIAL CAPACITY AND POLITICAL AND MARKET BASED BARRIERS.”

NEWS

RENEWABLE WORLD AGM

On the 8th November, Renewable World held its first AGM at the Norton Rose offices in London. The Chair of Trustees Ray Thomas provided an overview of progress during the year, and then headline figures from the accounts were summarised by Michael Bullock, Treasurer.

Jo Kelly, Programme Development Director, Melanie Matthews, Marketing Director and Neil Jeffrey, CEO gave more detailed presentations on the plans for the coming year, in the context of the 2011-2016 Strategic Business Plan. Subsequently there was an opportunity for the donors, fundraisers, volunteers and supporters present to ask questions of the board.

LIME SEARCH SUPPORTS RENEWABLE WORLD

Energy executive search specialists Lime Search have decided to make a difference in 2011 by pledging a percentage of their profits to Renewable World and allowing their employees to volunteer their time and expertise on a regular basis which will provide valuable support for the organisation's work tackling poverty through renewable energy.

Director Nasim Shakoori explained, "Giving back to the world and the community in which we work is central to our beliefs. We want to make a difference by contributing to a sustainable future. Supporting Renewable World provides us with a perfect opportunity to do this".



RENEWABLE WORLD MEETS WITH NICARAGUAN MINISTRY OF ENERGY

Renewable World CEO Neil Jeffery and Programme Development Director Jo Kelly, met with the Nicaraguan Ministry of Energy and Mines on a recent visit to the country to discuss the role of renewable energy in rural electrification.

Renewable World completed a solar-wind project in central Nicaragua last year, and plan to scale up work in the isolated Atlantic Coast area, a decision which was given full support by the Ministry who are committed to improving energy supply in the country and see renewables as a key part of rural electrification.

COUNTRY PROFILE

Nepal

Capital: Kathmandu

Population: 29,852,000

Life expectancy: 67.5 years

Population living on less than \$2 a day: 77.6%

Percentage of households without access to electricity: 49%

Adult literacy rate: 56.5%

All figures from UNDP Human Development Report



Back-breaking w Life-changing tec

Water is essential for life, yet many people around the world still do not have access to a clean, reliable source. This results in over two million deaths from water related illnesses every year.

Thanks to companies and individuals who bought our Christmas e-cards or made a donation to our Christmas appeal, Renewable World was able to sign an agreement with Nepalese partner Centre for Rural Technology (CRT) to carry out a project to provide clean water to two communities in the Dhading district of Nepal.

Two thirds of Nepal's population live in mountainous regions that are remote and sparsely populated and cannot easily be served by conventional piped water systems. Alternative systems using diesel engines or electrical or solar driven pumps are too expensive for rural communities to

install, fuel and maintain. Therefore communities still rely on collecting water manually from distant sources. The main burden of water collection falls on women and children, who often spend several hours each day carrying water along steep and dangerous slopes. The time spent on water collection reduces the time that women and children have to carry out other activities like providing for their families or going to school.

The hydraulic ram pump (sometimes known as the hydram) is an appropriate, renewable technology invented in the 18th century. It uses the energy from water flowing down through a drop of a few meters

Renewable World Project Partner wins BBC News Technology Award

The Alternative Indigenous Development Foundation (AIDFI) has won an award voted for by BBC World viewers for their ram pump design which is being used in a Renewable World technology transfer project with the Centre for Rural Technology (CRT) in Nepal.

The project entitled "the only way is up" was chosen as a winner from over 800 entries from 70 countries in the BBC World Challenge 2010, which is aimed at finding projects or small businesses around the world that have shown enterprise and innovation at grass roots level.

More than 167,000 people voted for the ram pump as their favourite technology after watching a 10 minute film on each of the 12 finalists aired on the BBC World News. AIDFI received \$20,000 from competition sponsor Shell to further their work.

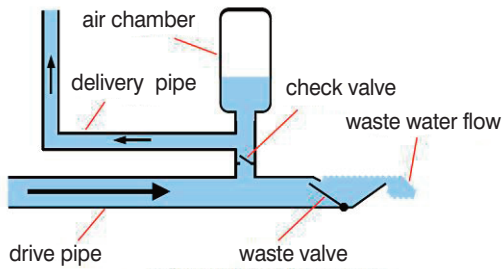


Auke Idzenga from AIDFI collecting the award

Renewable World is proud to be collaborating with AIDFI and promoting the use of this award winning technology to rural communities in Nepal.

Watch the BBC film at: www.tinyurl.com/aidfi-video

ork... hnology



Simplified diagram of the ram pump

to lift a small percentage of that water up to a much greater height. One system can deliver between 1,000 – 100,000 litres of water a day to a reservoir up to 200m above the source, which fills up overnight and drains down through the day. In rural communities in developing countries it is typically used to deliver water for household usage, irrigation and income-generating activities. It is inexpensive to install and maintain, has no operating costs and is environmentally friendly.



Ram pump installation



Image by Nancy DeVries

Women in Nepal typically spend several hours every day collecting water

Although an attractive option for rural energy supply, many ram pumps installed in developing countries, including Nepal, have not been successful due to poor design, lack of maintenance and difficulty of sourcing spare parts.

AIDFI have 12 years of experience working with ram pumps and have carried out successful technology transfer projects in other countries including Colombia and Afghanistan.

The award winning AIDFI design is patented with a number of innovative features which ensure that the cost and ongoing maintenance is reduced. Some parts need regular (three to six month) replacement and are therefore made from cheap, locally available materials: the waste valve is moved by a door hinge, and the check valve can be made from an old car tyre. The technology transfer will take into account how the AIDFI design may need to be modified to cope with the extremely cold winter temperatures in Nepal.

Villagers in the Philippines, who now have water supplied by a ram pump just like the ones which will be installed in Dhading district, have seen with their own eyes that renewable energy works and that it is the best, most affordable and most reliable option for them. The time women used to spend collecting water is now available to care for children and livestock, tend vegetable gardens and engage in income generating activities. And people are cleaner and healthier: "We used to be so dirty at the end of the day... now we're all clean." ... "Our children eat properly now. They used to have bad diarrhoea. Now we can prepare good food for them to take to school." (Women of Sitio Bagacay community).

Water for irrigation means that vegetable crops can be grown in the dry season and people can keep livestock. "Look at all my tomatoes! They'd never be here without the pump. And some people have poultry now and they have pigs too. There are so many things you can do if you have water." Willy Granada, Tara community.

The two communities in Dhading district will assist in the installation of the ram pump system, building local capacity and encouraging a sense of ownership. Members of the local community will be selected for training in maintenance and repair of the system so the project is sustainable in the long-term.

The community will also agree an affordable tariff for water usage and set up a management committee to collect user fees which will pay for the maintenance of the system. Any additional revenue from the fees will be put in a fund to provide micro-finance loans to members of the community to promote the growth of small enterprises.

This project still needs additional funding so if you or your company or someone else you know is able to help, please make a donation on our website:

www.renewable-world.org

or by sending a cheque to the address on page 2.

RENEWABLE WORLD EVENTS CALENDAR

Catch Renewable World at one of these upcoming conferences or join a fundraising event.

● EWEA 2011



14th – 17th March
Brussels, Belgium

Visit Renewable World on the EWEA stand no. 11434 in Hall 11 at Europe's premier wind energy event and consider compensating for your travel emissions by supporting our work: <https://renewable-world.amee.com>

● UK Aware 2011



25th – 26th March
Olympia, London

Renewable World is proud to be one of the charity partners at the UK's largest green and ethical lifestyle show. Come visit us in the energy zone. www.ukaware.com

● All-Energy



18th – 19th May

Aberdeen, Scotland

Visit the Renewable World at stand E8 at the UK's largest renewable energy show and consider compensating for your travel by supporting our work: <https://renewable-world.amee.com>

● Edinburgh Marathon



22nd May
Edinburgh, Scotland

Join the running4renewables initiative and enter the Edinburgh Marathon, Half Marathon or Hairy Haggis team relay and support the work of Renewable World.

www.running4renewables.org.uk

Renewable World at UK Aware

Renewable World has been invited to be one of the charity partners for this year's UK Aware conference at London's Olympia on 25th and 26th March during Climate Week, a nationwide initiative to galvanise individuals, businesses and organisations to showcase practical solutions to climate change.

Now in its fourth year, UK Aware is the largest ethical and green lifestyle event in the UK, bringing together over 150 exhibitors, 50 world class speakers and over 10,000 visitors. The exhibition features thousands of innovative products and services from fashion to food, eco-holidays to energy saving, demonstrating that small changes can make a big difference and that sustainable living doesn't mean compromising a modern lifestyle.

Renewable World will be talking to people about how the impact of green lifestyle choices not only have an impact in the UK, but can help to make a difference in the developing world too. There are many ways in which people can support Renewable World and help people in developing countries to benefit from sustainable living. To find out more come and visit our stand in the energy zone.



Consumers can hear informative talks from the green sector



Visitors can take advantage of over 150 green lifestyle exhibitors

Tickets for the event cost £7 but UK Aware have very generously offered the first 50 Renewable World supporters free tickets. Simply visit: www.ukaware.com and enter the promotional code RW2011 to claim your free ticket now!

Purchase Power!

Thanks to Renewable World supporters shopping on line this Christmas using our Amazon and Nigel's Eco Store charity links, we received commission of over £200.

Amazon promised to donate 6 per cent of the cost of all purchases made on their site using the Renewable World link and Nigel's Eco Store gave a generous 10 per cent.

The good news is the scheme doesn't end at Christmas, both online stores will continue to support Renewable World throughout the year

so whether you are a regular internet shopper or not, if you continue to use our links whenever you purchase anything from Amazon or Nigel's Eco Store, you will be helping Renewable World to bring clean and sustainable power to more communities in the developing world.

Whether it's the January sales, Valentine's Day or presents for birthdays, christenings or weddings that you're after, help us reach our target of £2,500 commission this year.

Start shopping now: www.renewable-world.org/get-involved/shop

amazon.co.uk



Get running4renewables in 2011

After the success of last year's inaugural running4renewables event which saw over 80 runners coming together to participate in the Edinburgh Marathon, Half Marathon and Hairy Haggis team relay, the event will take place again on 22nd May and promises to be bigger and better than before.

Thanks to last year's lead sponsor ventoludens Ltd and supplementary sponsors Wright, Johnson and Mackenzie and Shepherd and Wedderburn, all the costs of last year's event were covered so every penny of the £29,954 which was raised by the runners will be spent directly on Renewable World's work in developing countries.

The funds have been used to pay for the transmission and distribution lines to complete a 15kW micro hydro scheme in the community of

Ndiriri in Mozambique which is now providing lighting for homes in the village as well as power for the local school, health centre and maize grinding facility. The remainder of the money will be used to support Renewable World's Nicaraguan partner blueEnergy to provide enough power to upgrade the health centre in the remote community of Monkey Point in Nicaragua, so that the medical staff can run vital services like a fridge to store vaccines and a nebuliser.

If you would like to help Renewable World support more communities like Monkey point and Ndiriri then why not consider taking part in this year's running4renewables event? Whether you're a seasoned runner or it's something you've always wanted to do, Edinburgh is a great place to do it and with a choice of marathon, half marathon or team relay (roughly 10k per leg)

there is a distance to suit everyone. Sign up now on our website: www.running4renewables.org.uk

We will support you in the lead up to the event with a running4renewables running shirt, fundraising pack and hints and tips about how to make the most of your training.

If your company is interested in becoming a corporate supporter and providing invaluable support for this year's event, then please contact Daniel Rafferty.

MORE INFORMATION...



Contact Daniel Rafferty
Tel 00 44 (0) 7595465065
Email daniel.rafferty@ventoludens.co.uk

Do something different in 2011

The Christmas decorations are packed away, the unwanted gifts have been taken to the charity shop, the fridge is full of low fat food and you've bought a new set of exercise clothes in the January sales. So what now?

Why not challenge yourself to not only get fit this year but do something different by taking part in a fundraising challenge for Renewable World? Whether you fancy running, swimming, cycling or doing all three, Renewable World has an event for you.

Take advantage of one of our charity places in the Edinburgh Marathon, London Triathlon, or Run to the Beat in London which is a unique event playing motivational music along the route to put you in a positive frame of mind and give you a rhythm to run to. If you're more of a team player, then how about getting a group of friends

or colleagues together to run the Hairy Haggis team relay at the Edinburgh Marathon or compete in the London Triathlon team relay?

If you already have a place to participate in an event in 2011, or have another event in mind which you fancy, then why not make it an even more memorable experience by raising sponsorship for Renewable World and making a real difference to people living in energy poverty. Like Henry Clifford who decided to run the Barcelona Marathon and fundraise for Renewable World after travelling around Central America last summer and visiting Nicaragua, one of the countries where Renewable World are supporting people by providing renewable energy.

When explaining his decision Henry said, "what really struck me was the disparity between rich and poor in Nicaragua and therefore I

wanted to give something back to the country which I felt needed help the most. When I found Renewable World, I knew straight away that I had found what I was looking for."


If, like Henry, you would like to support the work of Renewable World, sign up now to ensure your place at one of the events mentioned www.renewable-world.org/get-involved/fundraising-events or contact us to find out more about other ways to challenge yourself for a good cause.

MORE INFORMATION...



Contact Jen Glyn
Tel 00 44 (0) 1273 606 685
Email events@renewable-world.org

FUNDRAISING HIGHLIGHTS 2011

may	june	july	august	september	october
<p>Edinburgh Marathon, Half Marathon and Hairy Haggis relay 22ND MAY Join the running4renewables team at this event which has a suitable distance for everyone!</p>		<p>London Triathlon 30TH JULY Challenge yourself to the sprint or olympic distance swim, cycle and run or enter the team relay.</p>		<p>Run to the Beat 25TH SEPTEMBER Take part in this unique London Half Marathon and enjoy motivational music along the route.</p>	<p>Race Against Climate Change TBC OCTOBER Sign up for the Birmingham Half Marathon and take in the sights of Edgbaston Cricket Ground and Cadbury World!</p>



As part of your new year's resolutions why not commit to making a real difference to some of the world's poorest people? Renewable World has a number of ways in which you can support our work over the coming year and enable us to bring sustainable sources of power to some of the 1.4 billion people in the world living without access to the energy that could dramatically improve their lives.



Find us on Facebook!

If you are a Facebook user you can now keep up to date with our work through the social networking site. Search for Renewable World and 'like' our page and you will be able to follow our updates.

Why not spread the word about our work and suggest your Facebook friends like us too?



To find us on Facebook go to:
www.facebook.com



Carbon Compensate

If like many people you are concerned about your carbon footprint, one positive step you can take to account for unavoidable emissions such as those caused by travelling, is to support poor communities to develop in clean and sustainable way.

Using the Carbon Calculator on our website, you can work out how much to donate to a Renewable World project in order to compensate for the emissions from your home, business or travel activities.



It's quick and easy to do, so compensate now:
<https://renewable-world.amee.com>



New Year, new you!

Whether your new year's resolution is to get fit, eat more healthily or do your bit for the environment in 2011, Amazon and Nigel's Eco-Store might be able to provide you with the inspiration you need. From exercise DVDs or cook books, to gym equipment or energy savings products, you can get all the motivational advice and gadgets you need online.

Shop using the special links on our website and Amazon will give 6 per cent of the cost of your purchases as a donation to Renewable World and Nigel's Eco-Store will give 10 per cent.



Start shopping now:
www.renewable-world.org/get-involved/shop



Give as you earn

Make a difference in 2011 by signing up for a payroll giving scheme. Payroll giving is a flexible scheme for anyone who pays UK income tax to donate to charity regularly on a tax free basis directly through your salary.

Payroll giving donations are deducted before tax so each £1 you give will only cost you 80p or 60p if you are a high rate tax payer.



Speak to your HR department to set up a payroll gift or for more information:
Email: melanie.matthews@renewable-world.org or call: 01273 606 685



If you would like to make a donation to Renewable World just go to our website www.renewable-world.org and click on 'donate now', where you can make a one-off gift or download our Direct Debit form to give on a regular basis.

KEEP IN TOUCH

www.renewable-world.org



It's really easy to keep up to date with Renewable World, our projects and how you can get involved. Just go to our website: www.renewable-world.org and click on 'subscribe now'. Give us your details and we will do the rest!

You can unsubscribe or change your details at any time, but don't worry we won't inundate you with mail and we will never pass your details on to anyone else.