



Domestic Biogas Newsletter

SNV

Connecting People's Capacities

Issue 4 – January 2011

Dear reader,

It is our pleasure to present to you the fourth issue of the SNV Domestic Biogas Newsletter and we hope you will enjoy reading these brief reports.

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Production rate of biogas plants 18% up in 2010

360,000 households have benefited from SNV-supported programmes

In 2010, almost 62,000 biogas plants were installed through SNV-supported country programmes; an increase of 18% compared to 2009. The table provides an overview of the unofficial numbers of 2010. The Biogas Programme (BPII) in Vietnam and the Biogas Support Programme (BSP) in Nepal top the list with the most installations last year. The East African countries of Tanzania, Kenya, Uganda and Ethiopia also made good progress. Development in West Africa has been limited so far, with 2011 becoming the moment of truth for the programmes in Burkina Faso and Senegal. The programme in Rwanda is performing below its expectations. The 2010 benchmark of 1,000 biogas plants was achieved in Indonesia, Rwanda and Tanzania, while Cambodia crossed 10,000 units and Vietnam even overshot 100,000 ([read here](#)).

Thus far, SNV-supported programmes have installed 360,000 plants. But, these numbers



are quite low compared to the achievements in the leading

biogas countries, China and India. In 2010, China installed another 4.9 million units arriving at a total of 40 million operational plants. India constructed almost 120,000 units within the Fiscal Year 2009-2010 within the National Biogas and Manure Management Programme (NBMMP), making its total 4.25 million biogas plants in March 2010.

Country	Programme took off in	2010	Cumulative up to 2010
Asia			
Nepal	1992	20,753	225,356
Vietnam	2003	24,936	100,767
Bangladesh	2006	5,688	15,707
Cambodia	2006	3,744	10,146
Lao PDR	2006	937	1,966
Pakistan	2009	590	690
Indonesia	2009	1,316	1,366
Africa			
Rwanda	2007	627	1,061
Ethiopia	2008	731	859
Tanzania	2008	1,021	1,127
Kenya	2009	837	840
Uganda	2009	583	626
Burkina Faso	2009	111	112
Cameroon	2009	55	78
Benin	2010	19	19
Senegal	2010	28	28
Total		61,976	360,748

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International Workshop on Domestic Biogas in Cambodia

Inclusive planning and financing of national programmes on domestic biogas in Asia

SNV, the National Biogas Programme (NBP) in Cambodia, GTZ and the Asian Development Bank (ADB) through its Energy for All Partnership (E4ALL) organised a workshop on inclusive planning and financing of national programmes on domestic biogas in 15 Asian countries. The workshop took place in Cambodia from 10 to 12 November 2010.

Scaling-up

Over 120 participants from 20 countries representing private and civil society organisations, government institutes, knowledge centres, development agencies and international donors participated in the workshop. Countries with an existing national biogas programme demanding to be scaled-up are Bangladesh, Cambodia, Indonesia, Lao PDR, Nepal, Pakistan, Vietnam, and from 2011 onwards, also Bhutan starts a programme. China and India lead the sector, with large national programmes and substantial local financing. The E4ALL Working Group on Domestic Biogas proposed to focus on innovative programmes in these two countries. And finally, there is a group of potential new countries with a national programme yet to be confirmed like Myanmar, Philippines, Sri Lanka, Thailand and Timor Leste.

Financing

E4ALL is estimated to install an additional 1.162 million biogas plants by 2016. Of these, 56% will be in the eight countries with an existing biogas programme; 41% in China and India through innovative programmes; and 3% in five 'new' countries. The total estimated expenditures up to 2016 amounted to USD 753 million, of which 82% is for biogas plant installations, 16% for sector development and innovation and 2% for international TA. Financing was proposed through households (55%), governments (17%), carbon credits (4%) and ODA (24%). Regional structured funds may also be required to refinance loans of financial institutions to end-users.

Awards

During the opening session of the workshop, SNV advisor Mr. Jan Lam was awarded the prestigious Chevalier Medal for his work as Senior Biogas Advisor to the NBP. H.E. Mr. Om Kimsir, Secretary of State of the Ministry of Agriculture, Fishery and Forestry (MAFF), presented the award for his support to the NBP since the establishment of the programme in 2005. Earlier, in February 2010, NBP Programme Coordinator Mrs. Lam Saoleng was awarded a Gold Medal in recognition of her excellent efforts to improve the programme and ensure its benefits to the local people and poor communities.



[Please click here to download the Workshop report](#)

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Expert Group on technical innovation of domestic biogas plants

A Terms of Reference was developed to set up an Expert Group on technical innovation of domestic biogas plants. By June 2011, this Expert Group will recommend technical innovations on domestic biogas plants to reduce costs, increase reliability and meet untapped market demands. The Expert Group will relate possible innovations to the following four product/market combinations:

- Improvement/development of the existing product for the existing market: The untapped market for the existing product is still large, especially when costs could be reduced and/or reliability could be increased;
- New/developed product for potential users living in areas with high water table;
- New/developed product for potential users who have limited space to install the biogas plant;
- New/developed product for potential users who have limited feedstock (minimum 10 to 15 kg of animal manure per day) available to feed the biogas plant.

A total of eight experts from the region including China and India have been selected as Group members. Their first meeting took place on 18 December 2010 in Jakarta.

[Please click here to download the Terms of Reference of the Expert group](#)

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Upcoming biogas training opportunities

The following courses on domestic biogas are scheduled for 2011:

- Thailand, Asian Institute of Technology, *Domestic Biogas Programmes: Design and Implementation*, 5 days in the second quarter of 2011 (to be decided), for further information contact Dr. Abdul Salam, e-mail: sky@ait.ac.th or chaon@ait.ac.th;
- Germany, University of Oldenburg, *Compact course on Domestic Biogas: Technology and Dissemination Experiences from Asia & Africa*, 26-28 April 2011 ([download programme flyer here](#)), for further information contact Ms. Evelyn Brudler, e-mail: evelyn.brudler@uni-oldenburg.de.

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Kenya National Domestic Biogas Programme



Peter Thuo, living in Naivasha (80 kilometres from Nairobi), has been constructing houses since 1986. In November 2009, he was selected and trained in the biogas technology by the Kenya National Domestic Biogas Programme. He built his first plant for a neighbour in January 2010 and has completed more than 20 units during the year. He is now looking at setting up his own biogas construction company. Peter's story exemplifies the market potential of domestic biogas in Kenya. Here, with financial assistance from the Netherlands Ministry of Foreign Affairs through Hivos, the Programme installed over 800 units in just one year. The national programme is managed by the [Kenya National Federation of Agricultural Producers \(KENFAP\)](#), in cooperation with various local implementing partners. By the end of 2010,

more than 20 companies were engaged in the marketing, construction and sales of biogas plants, including after sales services. The programme was officially launched on 24 November 2010 at the Kimende High School Grounds, Lari District of Kiambu County.

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100,000 biogas digesters in Vietnam

44 out of Vietnam's 64 provinces have been reached



On 21 December 2010, the 100,000th biogas digester constructed under the programme supported by the Vietnamese Ministry of Agriculture and Rural Development (MARD) and SNV was inaugurated. The 5-member household that owns the 100,000th biogas plant is Mr. Ngo Van Son's, located in Soc Son district of Hanoi. The family opted for a 20 m³ digester to dispose of the manure of their 30 pigs, and produce gas for cooking, lighting and organic fertiliser for their small tea estate.

From 2003-2010, the Vietnam Biogas Programme, with technical assistance from SNV, contributed to the installation of more than 100,000 biogas plants in 44 of Vietnam's 64 provinces. The Programme has directly benefited 500,000 people in rural areas by tackling the twin problems of dangerous cooking practices and untreated animal waste. Also, employment creation reached nearly two million labour days.

In 2006, the Vietnam Biogas Programme won the Energy Globe Award for its significant contribution to reduce climate change. In June 2010, the Programme also won the prestigious Ashden Awards for Sustainable Energy. In the words of the judges: "their highly successful partnership which has enabled the distribution of biogas technology across Vietnam on a massive scale in a way that is both sustainable and has the potential for further expansion. By popularizing the use of biogas among pig farmers, this programme has tackled Vietnam's waste problem and has brought tremendous benefits to farming families."

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Working Group on Domestic Biogas under the Energy for All Partnership



In 2009, SNV was invited by the Steering Committee of the Energy for All Partnership (initiated by the Asian Development Bank (ADB)) to lead a Working Group on Domestic Biogas. The Working Group will find innovative ways to disseminate one million domestic biogas plants in about 15 ADB member countries by 2016, providing 5 million people access to sustainable energy (see above). In addition, the Working Group aims to make an important contribution to the development of sustainable, market-based

biogas sectors in these countries. SNV will actively pursue these objectives as a follow-up of the ongoing biogas practice in the region through networking and partnering with existing and new parties. A brief report has been prepared on the activities of the Working Group in 2010 followed by a plan of proposed activities in 2011. For those who like to be listed as member organisation of the Working Group, please send a message to Mr. Wim J. van Nes (e-mail: wvannes@snvworld.org) and you will be included in future communications. For the time being, there are no formalities related to such registration.

Please click [here](#) to download the Working Group's brief report on 2010 and plan for 2011

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Global Alliance for Clean Cookstoves

100 million homes to adopt clean and efficient stoves and fuels by 2020

Launched in September 2010, the Global Alliance for Clean Cookstoves is a public-private partnership to save lives, empower women, improve livelihoods, and combat climate change by creating a global market for clean and efficient household cooking solutions. The Alliance's '100 by 20' goal calls for 100 million homes to adopt clean and efficient stoves and fuels by 2020. The Alliance will work with public, private, and non-profit partners to help overcome the market barriers that currently impede the production, deployment, and use of clean cookstoves in the developing world, see www.cleancookstoves.org.

Promotion of clean and efficient cookstoves is urgent as:

- Not less than 2.7 billion people – some 40% of the global population - relied on traditional use of biomass for cooking in 2009. This number will likely rise to 2.8 billion people in 2030;
- Illnesses caused by exposure to smoke from cookstoves kill almost two million women and very young children annually – more than die from malaria;
- Reliance on biomass for cooking and heating, forces women and children to spend many hours each week collecting wood;
- Cookstoves fuelled by unsustainably harvested and inefficiently burned biomass also increase pressures on local natural resources and contribute to climate change.



At present, there is no universal standard to define whether a cookstove is efficient and clean. Such definition will be one of the first targets of the Alliance. Different kinds of stove fuels will be considered by the Alliance, not only solid (biomass) fuels such as fuel wood and charcoal, but also liquid (like ethanol) and gaseous (like biogas) fuels are included, as well as kerosene and LPG.

As one of the founding partners, [SNV](#) pledged to contribute \$250,000 in cash and kind to the Alliance, as well as provide its expertise in the dissemination of household based renewable energy technologies.

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For more information about the activities of SNV on domestic biogas, please contact Mr. Wim J. van Nes, e-mail: wvannes@snvworld.org.

For more information on SNV, please visit our website: www.snvworld.org

SNV is dedicated to a society in which all people enjoy the freedom to pursue their own sustainable development.
We contribute to this by strengthening the capacity of local organisations.

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