First Meeting of Network of Experts on Domestic Biogas Promotion

April 5-6, 2006
Hanoi, Vietnam

A Brief Report of Activities and Outcome of Discussions

May, 2006

Introduction

SNV has identified biogas technology as one of the major areas of involvement to address the needs of the rural population and solve the problems of poverty, environmental degradation, unemployment, deteriorating human health due to in-door air pollution as a result of burning of conventional fuel sources, excessive workload of women and declining household sanitation. SNV has been supporting the promotion and extension of biogas technology in Nepal since 1992, in Vietnam since 2003 and in Laos, Bangladesh, Cambodia and Rwanda since 2005. Under the framework of Asia Biogas Program (ABP), SNV has received a fund from the Netherlands Directorate General for International Cooperation (DGIS) to co-finance programmes in a number of Asian countries. In addition, the ABP envisages for the establishment and operation of a regional network of experts working in the field of biogas technology. The first meeting of network of experts was organised in Hanoi, Vietnam, on 5 and 6 April 2006 and attended by a total of 16 experts[1]. This brief report summarises the purpose, schedule, country presentations and outcome of discussions of the meeting.

Objective and Key Question of the Meeting

The overall objective of the meeting was to enhance knowledge on promotion[2] of domestic biogas plants through presentations by and discussion among selected experts. The key question for this meeting was: How to create a market for domestic biogas plants?

Preparation

The Biogas Practice Team Coordinator of SNV issued the guidelines for the preparation of the country presentations of maximum 20 minutes on biogas promotion, requesting the presenters:

- To segment the target group of potential users as much as possible;
- To assess the cost-effectiveness of the actors of the activities like the programme office, provinces, local NGOs, service providers like banks, micro-finance institutes, companies and construction teams; and
- To assess the cost-effectiveness of the various activities and materials.

On request, the country presentations (as Power Point or Word) can be provided by SNV.

Schedule

The meeting was conducted for two days. The following table shows the schedule of activities during the meeting.

Wednesday, 5 April 2006 (Field Visit)

08.30-16.00	Visit to office of the Biogas Project Division (BPD) and field visit to Hai Duong Province
19.30	Dinner

[1] The meeting was also attended by two employees of the Biogas Project Division of MARD, Vietnam, being Mrs. Doan Bich Van and Mrs. Dau Thi Thanh Huyen.

[2] This subject was identified as one of the most important subjects by a group of experts during a session in Beijing on 21 October 2005.

Thursday, 6 April 2006 (Meeting on Promotion)

08.30-09.00	Opening and welcome, speech by Dr. Nguyen Thanh Son, Deputy Director of the Livestock Production Department of the Ministry of Agriculture and Rural Development, introduction, fixing of the agenda, chairperson, minute-taker
09.00-09.25	Biogas promotion in the Biogas Programme (BP phase I-II) in Vietnam
09.25-09.50	Biogas promotion in PR China
09.50-10.15	Biogas promotion in India
10.15-10.40	Biogas promotion in the Biogas Support Programme (BSP phase I-IV) in Nepal
10.40-11.10	Coffee/tea break
11.10-11.35	Proposed biogas promotion in the Biogas Project in Lao PDR
11.35-12.00	Biogas promotion in the National Biodigester Programme (NBP) in Cambodia
12.00-12.25	Proposed biogas promotion in the National Domestic Biogas and Manure Programme (NDBMP) in Bangladesh
12.25-12.50	Proposed biogas promotion in the Biogas Support Programme in Rwanda
12.50-14.00	Lunch
14.00-14.15	Summary of the presentations and discussions, proposal for issues to be discussed further
14.15-15.30	Further discussion on selected promotional issues
15.30-16.30	Other issues related to the Network, next meeting and subject
16.30-17.00	Evaluation and closure

Participants

Participants from China, India, Nepal, Vietnam, Bangladesh, Cambodia, Rwanda and Laos took part in the meeting. The following table shows the details of the participants.

SN	Name	Organisation	Address	E-mail
1	Mr. C. V. Krishna	Centre for Renewable Energy and Appropriate Technologies (CREAT)	208, Dharma Vihar, Jagamara, P.O. Bhubaneswar, 751030, Orissa, India	krishnacreat1@rediffmail.com
2	Mr. Qichun Hu	Biogas Institute of the Mo Agriculture	4-13, South Renmin Road, Chengdu 610041, P.R. China	kyc@biogas.com.cn
3	Mr. Kykeo Singnavong	Mo Agriculture and Forestry (MAF/DICI)	P.O. Box 811, Vientiane, Lao PDR	laomafdici@yahoo.com
4	Mr. Douangchanh Sirivongsa	Mo Agriculture and Forestry (MAF/DLF)	P.O. Box 811, Vientiane, Lao PDR	d_sirivongsa@yahoo.com
5	Mr. Md. Zahidul Islam	Infrastructure Development Company Ltd. (IDCOL)	G.P.O. Box 619, Dhaka-1215, Bangladesh	io02@agni.com

6	Mr. Silas Ruzigana	Mo Infrastructure	P.O. Box 24, Kigali, Rwanda	ruziganasi@yahoo.fr
7	Mr. Saroj Rai	BSP-Nepal	Bakhundole, Lalitpur, Kathmandu, Nepal	srai@bspnepal.wlink.com.np
8	Mrs. Ho Thi Lan Huong	Mo Agriculture and Rural Development (MARD/BPD)	298 Kim Ma, Ba Dinh, Ha Noi, Vietnam	huonghtl@biogas.org.vn
9	Mr. Reindert Augustijn	SNV/Vietnam	298 Kim Ma, Ba Dinh, Ha Noi, Vietnam	maugustijn@snvworld.org
10	Mr. Jan Lam	SNV/Cambodia	P.O. Box 2590, Phnom Penh, Cambodia	jlam@snvworld.org
11	Mr. Prakash C. Ghimire	SNV/Cambodia	P.O. Box 2590, Phnom Penh, Cambodia	pghimire@snvworld.org
12	Mr. Sundar Bajgain	SNV/Nepal	Bakhundole, Lalitpur, Kathmandu, Nepal	sundar_bspnepal@yahoo.com
13	Mr. Christopher Kellner	SNV/Nepal	Bakhundole, Lalitpur, Kathmandu, Nepal	ckellner@snv.org.np
14	Mr. Wim J. van Nes	SNV/HQ	Bezuidenhoutseweg 161, The Hague, NL	nesvliet04@yahoo.co.uk
15	Mr. Guy Dekelver	SNV/Rwanda	P.O. Box 1049, Kigali, Rwanda	gdekelver@snvworld.org
16	Mr. Auke Koopmans	SNV/Lao PDR	Nongbone Road, Vientiane, Lao PDR	akoopmans@snvworld.org

Process and Outcome

Day-1: April 5, 2006

The participants were first provided with a brief overview of the Phase-I and proposed Phase-II of the Vietnam biogas programme in the office of the Biogas Project Division (BPD) of Ministry of Agriculture and Rural Development (MARD). The agenda of the day was discussed prior to the departure of the participants to the field visit to Hai Duong Province, one of the 12 provinces that participated in the first phase of the biogas programme. After arrival at the provincial office of Department of Livestock Production, a short synopsis of the biogas activities was presented by the involved provincial officers.

The participants then visited one under-construction biogas plant and two biogas plants under full operation. After lunch, a cultural excursion was made. The field visit has been instrumental in enhancing the knowledge of the participants on various aspects of construction, operation and maintenance of biogas plants. Observation of the biogas plants as well as discussion with the

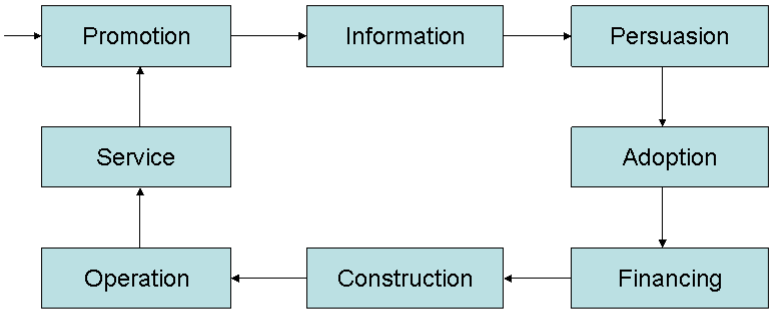
mason, technicians and owners of the biogas plants have been beneficial in getting acquainted with the technology at household level.

Day-2: April 6, 2006

Opening Remarks

After opening of the meeting by Mr. Wim van Nes, a speech was delivered by **Dr. Nguyen Thanh Son**, Director of Biogas Project Division of MARD, Vietnam. He welcomed the participants and highlighted the importance of the promotional activities in disseminating biogas technology at the grassroots communities. He expressed his view that convincing farmers to adopt the technology is a first step followed by the orientation on the effective uses of biogas as well as bio-slurry in promoting the technology. He thanked the Government of the Netherlands and SNV for supporting and organising the meeting.

The speech of Mr. Son was followed by a brief introduction of Mr. Wim van Nes. He presented a working model that could be used to distinguish the different phases of dissemination of domestic biogas:



Promotion of biogas towards potential users leads to awareness; reliable information to evaluation; and (personal) persuasion to adoption. After adoption, financing is required before construction can take place. Proper operation and after sale service are critical to keep the biogas plants well functioning which is a pre-condition for credible promotion towards other potential users

For this meeting, the presentations will be focussed on the first three activities of this model, being promotion, information (and education) and (personal) persuasion. A brief description of these activities is provided hereunder:

Promotion is the first step in dissemination of biogas. It should make potential users aware of the existing technology and raise interest in biogas. Except for the promotional effect of a good

functioning plant, most of the activities are centrally planned and implemented. Well-known means for promotion are pamphlets, posters, calendars, radio, demonstration plants, investment subsidies and after sales service. Awareness is the starting point for later investment decision, but does not necessarily lead to active interest.

The next phase is **information and education**. Potential users who are aware and have some interest in the technology need to get some more information to be able to make a proper evaluation of the usefulness for adoption. The information should not be biased and should be available for all members of the households including women. The information activities need to be decentralised and could include farmers' seminars, orientation workshops, but also individual contacts between potential users and extension workers or service providers.

Personal persuasion by a credible personal contact is required to get the potential users really interested in the technology. This could be a close friend or relative, but also a village leader or extension worker. In this phase the potential user should get the final information to enable him/her to make the final cost-benefit analysis. Persuasion to illiterate and semi-literate people (often the poorer households) demands more time than to educated ones. This activity is also decentralised.

Adoption is an individual or intra-family matter. The period between awareness and decision for adoption varies and depends on various factors, like the individual characteristic of the potential user: Some people are more innovative and willing to try out something new than others. The possibility for adoption is also influenced by the economic and socio/cultural situation of the potential user. Economical and socio/cultural constraints influence the ultimate potential.

Presentation of Country Papers on Promotion

Presenting his paper entitled 'Promotion of Domestic Biogas – Experiences in Vietnam', **Mr. Reindert Augustijn**, Sr. Renewable Energy/Biogas Advisor from SNV Vietnam, covered issues such as history of promotional activities in Vietnam, activities carried out by Biogas Project on promotion, general impressions on promotional activities, lessons learnt and some recommendations for the future. He emphasised that mouth to mouth promotion and exposure visits are best tools for the promotion of biogas technology. He expressed his view that farmers are hard-working people and lots of efforts are needed to change their knowledge, attitude and practices as they will not believe until they see! He reported that mobilisation of government machinery, especially the use of agricultural extension network, which has an effective set-up at the commune level has been beneficial for the program in promoting biogas technology in Vietnam. How to reach the poorer farmer is still a question for the Vietnam programme.

Mr. Hu Qichun from the Biogas Institute, Chengdu, China presented the paper on 'The Promotion of Rural Domestic Biogas Plants in China'. According to him, urbanisation has been affecting negatively on the dissemination of biogas technology as people tend to migrate to urban centres from villages where cattle are raised. He highlighted the need of integration of biogas program with sustainable agricultural practices which is getting popularity these days. The motivational factor, according to him, should not only be 'the provision of better energy sources' but also 'the better living conditions' or 'improvement in general living conditions' to attract more people to adopt the technology. Answering a question for Mr. Jan Lam on the reasons for the government to support biogas program, Mr. Hu pointed out the needs for environmental protection, wider use of sustainable agriculture practices, improvements of quality of life of people as well as provision of user-friendly energy sources to be on the higher priority of the Chinese government.

Mr. Hu's presentation was followed by that of **Mr. C.V. Krishna** from CREAT, India, who provided detailed insights on how the promotional activities are being carried out in the country in his paper 'Biogas promotion – India'. He talked about the role of state government as well as local governmental organisations at the grassroots level in promoting biogas technology in India. The investment subsidy which varies from state to state and from farmer to farmer based upon their socio-economic conditions was reported to be one of the prime factors in motivating potential farmers in installing digesters. Besides the central subsidy; turn-key job fees (provided to the service providers), additional subsidy for toilet attachment, incentives for saving diesel by using biogas to run engine, incentives for state nodal agencies as service charges, additional support for communication and publicity and technical back-stopping services were reported to be instrumental in India to promote the technology. Mr. Krishna suggested that the promotion of biogas technology will be faster and effective if corporate sector, public undertakings and private industrial houses include it under the framework of their Corporate Sector Responsibilities (CSR). Answering the query form Mr. Hu from China, Mr. Krishna told that the functional rate of biodigester in India is about 60%. Question was raised on the complications to manage the subsidy structure which differs from farmer to farmer, by Mr. Zahidul from Bangladesh. Mr. Krishna replied that the state government has in-built data and information on scheduled tribes and scheduled casts populations which is the main tool to decide the rate of subsidy.

The paper presented by **Mr. Saroj Rai**, Executive Director of BSP-Nepal focussed on the introduction of the different phases of the Biogas Support Programme (BSP) in Nepal and the promotional activities under BSP. He described that the promotional activities in Nepal which mainly focused on awareness building of potential farmers were carried out by BSP itself during the initial phases however, at present these activities are done to and through (I)NGOs, CBOs,

functional groups, local cooperatives, micro-financing institutions and biogas construction companies. He stressed that satisfied users and their good words-of-mouth are found to be most effective in areas where biogas plants already exist. Mr. Rai concluded that subsidy, effective quality control mechanism, demonstrational effects, capacity building of biogas companies and other key players, and awareness on cost and benefits at the user's level are instrumental in promoting biogas technology in Nepal.

Mr. Auke Koopmans, Sr. Renewable Energy Advisor from SNV Laos and **Mr. Douangchanh Sirivonga** from Ministry of Agriculture and Forestry in Laos presented two papers on the anticipated promotional activities in Laos. Given the fact that biogas program is still in inception in Laos, the paper focussed more on planned activities. According to them, availability of firewood at a cheaper cost in most of the provinces, government's policy on livestock management which does not allow people to raise cattle in their household premise, free-ranging cattle and ignorance of people on the technology might add complexity in promotion of biogas technology in Laos. Mr. Krishna from India had some queries on feasibility of institutional plants and possibility of integration of biogas technology with other rural development programs being implemented by the government. Mr. Saroj Rai from Nepal wanted to know whether the farmers could be encouraged to keep cattle in the household premises.

Mr. Jan Lam, Sr. Biogas Advisor from SNV Cambodia presented his paper on 'Biogas Promotion'. He raised the need of promotional activities to be done on several levels as the program is new in Cambodia and there is hardly any experience with biogas. He stressed that it is not only important to mobilise demand for biodigesters by farmers but also the possible organisations/actors to deliver services such as pre-construction information, credit, supervision and extension have to be activated. He pointed out the need of promotion followed by training and capacity building of the stakeholders. His conclusion was to have separate strategies of promotion on the stakeholders' level and on the farmer's level. Installation of demonstration plants, conducting of village information workshops, distribution of promotional posters and leaflets, local radio programs, inclusion of biodigester technology information in activities of NGOs and flat rate subsidy are some of the major tools for the promotion of biogas technology in areas where the people are not familiar with the technology. He also pointed out the need for effective quality control mechanisms to safeguard the interest of the farmer and make him/her a catalyst in promoting technology. Mr. Reindert Augustijn added that diversification of end use of biogas and bio-slurry could be beneficial in promoting the technology.

Presenting his paper entitled 'Biogas Promotion in Proposed NDBMP in Bangladesh' **Mr. Md. Zahidul Islam**, Investment Officer from IDCOL, informed that the prime objective of promotional activities should be to increase the number of quality biogas plants which needs to be done at three different stages at the user's level – awareness creation, persuasion and adoption. General awareness through media, distribution of printed materials, orientation in public gatherings at community level (rural bazaars), schools and mosque based discussion programs and linking biogas sessions with other related program such as distribution of promotional materials in a training program organised for livestock management, could be effective awareness building tools in the context of Bangladesh. Persuasion through direct contacts, use of satisfied users, exposure visits to functional plants, mobilisation of local masons and supervisors in household visits and follow up by credit institutions could be effective tools

for persuasion. He stressed the need of subsidy, guarantee and after-sale-services and easily accessible credit system to help in adopting the technology by the farmers. Mr. Islam concluded that the marketing strategies for speedy promotion of biogas technology should be: targeting easy segment with highest potential customers, constructing high quality biogas plants and reducing price by gaining efficiency in construction management.

The main focus of the presentation of **Mr. Guy Dekelver**, Biogas/NRM Advisor from SNV Rwanda was on proposed/foreseen promotional mechanisms under the framework of domestic biogas programme in Rwanda. Presenting the fact that biogas is relatively new technology for majority of the Rwandan populations – the benefits and a requirement of the technology at the household level are hardly known though there are some institutional plants existing in some parts of the country - he highlighted some of the promotional activities carried out in recent days such as radio interviews and television coverage on the intention of the biogas project. Mr. Dekelver described that the proposed promotional activities will include networking with sector stakeholders, construction of pilot demonstration plants, mobilisation of farmers' training centres to disseminate information at the grassroots level and use of lead farmer's to spread the message to their neighbours. He stressed that the quality of product – a well functioning plant will be the best possible promotional tool and the satisfied users the best promoters of the technology. He also pointed out that effective after-sale-services and quality control mechanisms will be the key promotion elements. Information dissemination on financial saving, reduction in workload (time-saving) and subsidy provisions are expected to persuade the people to adopt the technology in Rwanda.

Summary of Presentations

The outcome of the various presentations revealed that the stage of development of biogas technology differs significantly among the participating countries. For example, the technology is matured, dissemination program is well-organised and market is well established in China, India and Nepal. Vietnam too has organised dissemination strategy and the technology is well known to majority of the population. However, in countries like Cambodia, Laos and Rwanda, the technology is new and majority of the people are not informed about the benefits of biogas plants. Though the technology is widely known to the majority of the population in Bangladesh, the growth of the sector has not been sustainable and biogas program is yet to be grown under a well-defined, long-term and sustainable program.

In countries with matured growth and established program, the focus should be on maintaining the quality of the promotional services by using existing satisfied users while in countries where the technology is relatively new, demonstration plants and awareness campaigns in carefully selected potential areas have to be undertaken. Therefore, there is need to contextualise the

promotional activities based upon the level of understanding of the people, availability of promotional media, accessibility of information etc. However, all the participants agreed that a well functioning biogas plant is the best promotional tool and a satisfied user is the best promoter of biogas technology.

Issues to be discussed Further

Based upon the issues raised in the presentations and following brief discussions the following five subjects were selected as potential issues for further discussion in the meeting.

1. How to reach poor/marginalised/small farmers who are technically potential (have enough quantity of dung to feed into the digester) but financially not able to afford the technology?
2. Is investment subsidy needed to stimulate the market? What are the advantages and disadvantages of subsidy on plant installation?
3. Is it necessary to integrate toilet construction, kitchen improvement, animal-shed renovation and income generation activities with the construction of biogas plants?
4. Which activity or combination of activities is most suitable and cost effective for promotion/information dissemination/persuasion of biogas technology?
5. What are the push and pull factors that facilitates/hinders the promotion of biogas technology at the grassroots communities?

Given the time limitation, the participants were asked to select two issues among these five for further discussion. While voting, Issue-2 and Issue-4 received 8 points each. Issues-1, 3 and 5 received 6, 4 and 5 points respectively. Issues 2 and 4 were therefore, selected for further discussion.

Outcome of Discussions

Issue-2: Is investment subsidy needed to stimulate the market? What are the advantages and disadvantages of subsidy on plant installation?

Subsidy has been a widely argued issue – both in favour of and in opposition to. Those who favour it, argue that an individual farmer helps in protecting the environment by installing a biogas plant. In other words, he/she helps the state in safeguarding the environment. In doing so, the plant owner invests money not only for his benefits but also for the benefits of the wider community. Therefore, the owner has to be paid by the state in the form of subsidy. Another reason for subsidy is to penetrate into the poorer section of the society, the people in the lower level of the pyramid. In the initial phase of dissemination of any technology, they are the people in the upper part of the pyramid who adopt it and enjoy the benefit. The people in the lower part of the pyramid, due to their marred ability to afford the new technology, often get excluded in the initial years. Subsidy is seen as vehicle to play a vital role in stimulating interest of the people in this regard. In contrary to this, subsidy is also termed as 'necessary evil' which distorts

the market. Participants were facilitated to express their views on this issue. The following table summarises the outcome of the discussions:

Advantages	Disadvantages
• Makes the plant affordable to poor/small farmers • Helps to stimulate the demand and expand the market • Monetises the social benefits accrued by domestic biogas plants • Helps in quality assurance of the final product. Quality control is facilitated with the provision of subsidy. If subsidy is not provided, one can not ensure that the installer complies with the quality standards.	• Will be only a temporary arrangement, so not stable • Kills the commercial activities • Opens doors for corruption and ill-doing • Develops tendency to wait for subsidy even when one can invest • Contradicts with the issue of equity as both poor and rich can have access to it • Is quite costly

Other contributions to the discussion were:

- Subsidy in itself is not a problem but it necessitates good administrative and managerial procedures;
- The term subsidy is misleading; it should be renamed as ‘incentive’ or 'co-financing';
- Periodic calculation of Financial Internal Rate of Return (FIRR) and Economic Internal Rate of Return (EIRR) has to be made from time to time to assess the relevance of subsidy amount;
- Inconsistent and/or irregular subsidy policy affects the promotion and extension of biogas technology adversely. A long term commitment from the donor and the government is mandatory to avoid the confusions and safeguard the momentum of the program.

Conclusively, it was agreed that depending on the stage of development of biogas programmes provision of investment subsidy is an effective and useful tool for motivating potential farmers to install biogas plants; however, it should be administered and managed with a clearly-spelt, long-term and transparent policies and guidelines.

Issue-4: Which activity or combination of activities is most suitable and cost effective for promotion/information dissemination/persuasion of biogas technology?

Cost effective and consistent promotion of any technology calls for well designed tools and techniques to suit the local context. The relevance and significance of promotional activities depends upon the stage of development of the technology in question. The outcome of discussions on the most suitable and cost-effective promotional techniques suggested that recommendation of a particular tools/technique to be the best solution for all is very difficult and often unrealistic. The following views were expressed by the participants as regards the most suitable and cost effective promotional tools in their context:

1. Words of mouth promotion (use of satisfied users).
2. Commune meetings/village level workshops (localised activities at the potential areas).
3. Institutional partnership to integrate/link biogas with the routine activities of the partner. This could be done by providing TOT to some pivotal staff members of potential stakeholders.
4. Use of local masons as promoters with an additional incentive.
5. Short radio messages during the prime-time.
6. Use of trained personnel from local CBOs/clubs and functional groups to disseminate information. Capacity building of these personal to flow factual information is vital.
7. Installation of demonstration plants and regular exposure visits of potential farmers to functional plants.
8. Wide-scale use of IEC (information, education and communication) materials through personnel from biogas construction companies.
9. Co-financing and synergy. For example, partnership could be made with UNICEF for toilet attachment in biogas plants.
10. Selection of most suitable motivational tool. More focus on improvement in quality of life.
11. Diversification of the benefits and optimise the use to attract more potential farmers.
12. Use of posters and leaflets with more illustrations and pictures. Use of funny and catchy pictures/slogans.
13. Subsidy on installation of biogas plant. However, the subsidy needs to be differentiated on the basis of accessibility and poverty level.
14. Household visits/personal contacts by the extension staff members for information dissemination and persuasion.
15. Branding (giving attractive names and using catchy logos)

Finally it was agreed that the flow of quality of information should be prime importance of promotion activity to avoid confusions. Information of false/sub-standard quality always adds risk to produce dissatisfied/partly satisfied users who may not deliver required 'words-of-mouth'. Promotional activities need to be carried out at two levels: national and local. Workshops, meetings and advocacy functions can be effective tools at the national level where as provincial workshops/village meetings and other localised activities could be useful at the local level. The approach should be decentralised and ownership of the promotional activities should rest at the local partner to ensure sustainability and internalisation of the process.

Evaluation

A recapitulation and evaluation of the two-days meeting was carried out at the end. The following are the main comments and suggestions:

- More focused discussion on the selected theme in needed.
- Helpful in sharing and enhancing knowledge and practices.
- Field visit was time consuming. Time spent on cultural excursion could have been utilised for more discussions.
- Beneficial in getting information from different peoples for different contexts.
- A good learning and sharing opportunity.
- Good opportunity to see and meet friends – old and new.
- Contents could have been compressed. Presentation could have been made shorter and focussed to allow more time for discussions.
- Some important issues, such as potential problems and likely solutions in promotion of technology in new areas, could not be discussed.
- Concept of meeting is very good. Good combination of people with different levels of experience and understandings.
- Challenges/difficulties in promotion were not covered in the presentations.
- Helpful information and interesting ideas come up during the meeting.
- Very good platform to learn the experiences in other countries.
- It is good to circulate the presentation papers quite in advance to allow the participants to be prepared for more in-depth discussions.
- Presentations should be more focussed on the main theme of the meeting.
- Include more issues as raised in presentations for further discussions.
- More focus should be given for sharing experiences (problems/challenges/best practices) from countries with matured technology.
- Good participation, good number of participants.
- Food and other logistic arrangements are very good
- Overall management is very good.

Closing

The meeting came to an end with vote of thanks from Mr. Wim van Nes to SNV/Vietnam and the Biogas Project Division of MARD for the excellent facilitation and logistics. The next meeting of experts is scheduled to be held in Bangkok on 27-28 September 2006, the subject will be proper use of bio-slurry.

Prakash C. Ghimire
Wim J. van Nes
May, 2006