



THE SECOND CONSULTATIVE MEETING OF NGOs UNDER THE METHYL BROMIDE COMMUNICATION PROGRAMME

**16-18 September, 2002
Nairobi, Kenya**



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1. Summary

The 2nd Consultative Meeting of NGOs under the Methyl Bromide Communications Programme was held at the headquarters of the United Nations Environment Programme (UNEP), Gigiri, Nairobi Kenya, September 16-18, 2002.

The purpose of the workshop was: (i) to review the status of the activities undertaken by NGOs, and the extent of the completion of outputs; (ii) to gather views of the NGOs on the impact of the programme in countries; (iii) to receive suggestions from NGOs on ways in which the programme might be improved and made more sustainable and replicable; (iv) to carry out a general evaluation of the barriers to completion of outputs; (v) to provide an opportunity for NGOs farther ahead in the process to exchange information and to learn from each other (especially from those who have completed their programme), regarding plans and strategies that can be used to implement their communication programmes; and (vi) to explore a strategy for a future NGO Communications Network.

The workshop was attended by the focal points within the NGOs participating in the Methyl Bromide Communication Project, as well as representatives from the National Environmental Management Authority (NEMA) of Kenya, and the Regional Network of Africa, UNEP. The thirteen participating NGOs were:

- Global Village Cameroon;
- Comite Nacional Pro Defensa de la Fauna y Flora (CODEFF) (Chile);
- Instituto Regional de Estudios en Sustencia, Tóxicas (IRET) (Costa Rica);
- Fundacion Agricultura y Medio Ambiente (FAMA) (Dominican Republic);
- Environmental development action-Ethiopia (Enda-Ethiopia);
- Consumer Information Network (CIN) (Kenya).
- Coordination Unit for the Rehabilitation of the Environment (CURE) (Malawi);
- CARED (Nigeria);
- Pesticide Action Network Philippines (PAN Philippines);
- Pesticide Action Network (PAN) Africa (Senegal);
- Rice Exporters Association (REA) (Thailand);
- Environmental Conservation Association of Zambia (ECAZ);
- Tobacco Research Board (Zimbabwe),

The presentations, field trip and discussions during the workshop focused on the following:-

- ❖ A review of the Methyl Bromide Communications Programme to date, and highlights of the in-progress evaluation or 'Synthesis Report' being put together by UNEP DTIE
- ❖ Results of demonstration projects for methyl bromide alternatives in Africa
- ❖ Review of the level of achievement of outputs by countries in implementing the communication programmes, barriers encountered, and suggestions for overcoming these barriers in future project design

- ❖ Discussions on potential strategies for the setting up of a NGO Methyl Bromide Communications Network.
- ❖ Bilateral discussions with countries with incomplete projects, to update on project status, and set out timelines for major tasks which remain and how they will be carried out.

2. **Background**

Methyl bromide is a fumigant that has been used to control a range of pests in agriculture and for disinfestation of durable and perishable commodities. MB has four main uses worldwide, namely for soil/pre-plant treatment; commodity/post-harvest treatment of stored products; structural/vehicle disinfestation and for quarantine and pre-shipment (QPS). Due to its powerful curative properties, no single, direct replacement has yet been identified. The basic alternative approach lies in taking preventive measures, sanitation and general prophylaxis. However, methyl bromide is also one of the chemicals that depletes the stratospheric ozone layer, a protective shield that filters out harmful ultraviolet (UV) radiation from the sun. The Meeting of the Parties (MOP) to the Montreal Protocol called for the control of methyl bromide in 1992. In 1997, a global phase-out schedule for methyl bromide was established by the MOP, requiring that developed countries phase out methyl bromide by 2005, whilst developing countries have until 2015 to complete their phase out of this chemical.

Introduced as part of its 2000 Work Programme, UNEP is in the final phases of implementing the project entitled, "Enhancing the Capability of Local Agricultural Organizations and Non-governmental Organizations in Methyl Bromide Communication" or, the Methyl Bromide Communications Project (MBCP). This project marked the first time that funds were provided under the Multilateral Fund to directly utilize the expertise of non-governmental organizations (NGOs) from around the world, in phasing out ODS.

The main objective of this project was to raise awareness among farmers and methyl bromide users about the methyl bromide phase out, leveraging the NGOs' existing infrastructure in the country. The project also sought to enhance the capacity of NGOs in promoting methyl bromide alternatives and in networking with other NGOs across the globe.

To achieve these objectives, communication programmes were set to be implemented by NGOs/local agricultural organizations in 13 selected Article 5 countries to educate methyl bromide users about the methyl bromide phase out, the availability of alternatives and actions that can be taken to phase it out. Participating countries that had completed their projects up to the time of the 2nd Consultative Meeting are the following: Chile, Costa Rica, Dominican Republic, Ethiopia, Kenya, Philippines, Zimbabwe and Zambia. Thailand and Malawi were in the process of finalizing their activities, whilst Cameroon, Senegal and Nigeria, (the latter three having only joined the project in the end of 2001) are in the early stages of implementation.

The selected NGOs/agricultural organizations have been working in close cooperation with the National Ozone Units in each country in developing and implementing the communication programme. This ensures that the communication programme is integrated with other national ozone protection activities to ensure a countrywide approach to ODS phase out.

Thus, with 9 of the 13 countries having submitted their final reports, it was now time to hold a second consultative meeting to evaluate the relative success of the activities undertaken, and to explore new strategies to improve the methodologies used to date.

3. Meeting Objectives

The consultative meeting was held from 16-18 September, 2002 in Nairobi, Kenya, with the following main objectives:

- To review the status of the activities undertaken by NGOs, and the extent of the completion of outputs (this will take the form of brief presentations from the countries);
- To gather views of the NGOs on the impact of the programme in countries
- To receive suggestions from NGOs on ways in which the programme might be improved and made more sustainable and replicable
- To make a general evaluation of the barriers to completion of outputs
- To provide an opportunity for NGOs farther ahead in the process to exchange information and to learn from each other (especially from those who have completed their programme), regarding plans and strategies that can be used to implement their communication programmes.
- To explore a strategy for a future NGO Communications Network.

4. Outputs:

The expected outputs from the meeting were as follows:-

- ❖ Report of the Consultative Meeting, including: (i) the status of activities in all countries which attended; and (ii) the visible impacts of the programme in countries; and (iii) strategies for improvement on the current design of the project, to enhance future awareness raising projects.
- ❖ A strategy for a network to promote exchange of experiences and collaboration among NGOs.
- ❖ Timetable from NGOs that are still working on the project.

5. Participants:

The meeting consisted of :-

- Representatives from the 13 NGOs/Agricultural Organizations that are participating in this project.
- Representatives from NEMA Kenya
- Staff members of the OzonAction Programme and UNON (inclusive of the Regional Office for the Africa Network).

In addition, a member from the UNEP Civil Society and NGO Unit, Division of Policy Development and Law sat in on the discussions on future support of the NGOs past the life of the MBCP.

6. Methodology

The meeting was organised roughly into three sections. Day 1 involved a field trip to Oserian Company Ltd., cut flower producers at the side of Lake Navaisha. There, the group was shown the company's work to eliminate methyl bromide from its production process. The second phase of the meeting took place on Day 2 of the Meeting, during the first day of the formal meeting schedule. This consisted mostly of UNEP's presentation of an overall view of the project implementation to date, and the potential way forward. In the afternoon, this was followed by the NGOs individually presenting their reports on the implementation of the MBCP in their countries. The final day of the meeting was spent in working groups, where NGOs were asked to fill out a table, outlining difficulties encountered, and potential ways of overcoming such difficulties through a change in project design. Finally there was a discussion to get the NGOs ideas on future support needed to continue work in awareness raising on methyl bromide phase out.

7. Meeting Content:

The meeting included the following:

- ◆ Introduction by the OzonAction Programme about the methyl bromide issue, activities to promote the methyl bromide phase out and the communication programme's present status.
- ◆ Presentations by each NGO/agricultural organization highlighting: (i) their strategy for implementing the communication programme; (ii) what was achieved; (iii) any visible lasting impacts of the project in their countries; (iv) a general statement of whether expected outputs were met, and of difficulties encountered.
- ◆ Presentation on the results of the demonstration projects being carried out in the target countries and regions.
- ◆ Discussions and brainstorming sessions to critique the project, gather suggestions for ways to improve the project design and enhance sustainability and replicability, and identify strategies to enhance ways in which NGOs might collaborate and share experiences with NOUs and other experts, thus supporting further work in methyl bromide phase out activities.

- ◆ A field trip on World Ozone Day on September 16, 2002, to participate in celebrations in Kenya.

7.1 September 16 Ozone Day Celebrations at Oserian

The day began with a field trip of operations at Oserian Company Limited. Oserian, situated at the edge of Lake Navaisha, Kenya's largest fresh water body, opened in 1982 with about 1500 workers. Today there are some 5000 employed, and about 8000 Kenyans supported by this company. It is a cut flower production company and a nature reserve. 5 million cut flowers a day are harvested (roses, carnations, *limonicus* and *gypsophilla*) for the European market. The company provides free medicine and education for the employees and their children all on the company compound, and so has a huge economic and social responsibility.

The company carries out many levels of environmental management:-

- (i) Land Management: they work to preserve soil structure and fertility, compost rejected produce, and practice crop rotation and fallowing of land;
- (ii) Water resource management: they minimise consumption of water, using a computerized drip irrigation system, which is based on soil moisture content and field water holding capacity. There is also afforestation and water catchment management, where Oserian provides saplings to be planted in the area. Oserian is bound to a code of conduct where all activities must take place 100 m or more from the lake edge;
- (iii) Wildlife Management: there are 3 wild life corridors cross Oserian land, and so there is no economic activity in these corridors. Water is made available to the animals during the dry season via the creation of an artificial watering hole, and there are conservation and wildlife specialists on staff;
- (iv) Integrated Pest Management (IPM): Oserian uses neem and garlic extracts; BTs (specific targets); *Trichoderma* soil fungicides, and the Mexican marigold for nematode control.

Finally Oserian uses no ODS, neither MB, nor CFCs in their refrigeration processes.

The first stop in the field trip was to observe a demonstration plot of MB alternative treatments. *Fusarium* is the biggest pest of *Lior* plants. Several strains of *Lior* were placed in soil originally infested with *Fusarium*. The various plots were then treated with alternatives such as steam-treated soils, hot water treatments, *Trichoderma* and composting, root soaks of Capstan and Basamid. The trials began in February 2002, and the results have yet to be evaluated.

The second stop was at the geothermal well of Oserian, where steam is captured for heating of water and steam sterilizations. The well is 1.4 km deep, although there are others in the area averaging 2km in depth, which are used to generate heating and electricity for the community around Lake Navaisha in general.

The third stop was at one of several 10 300 m², polythene sided greenhouses. Computer controls are in place to monitor temperature and humidity, and open the roof during the day during excessive heat, and pipe in hot water to raise the indoor temperature during the chilly lakeside nights. At the moment roses are being planted, and they are especially prone to fungal attack. IPM is favoured at Oserian, but if chemicals are to be used for some reason, they would likely be carbamates, organophosphates or organochlorides. It was emphasised that chemicals are not favoured at Oserian however, as these chemicals also destroy nematodes that are useful in the horticultural process.

After a short programme of speeches, the participants were then taken on a visit through the company's game sanctuary on a short safari, followed by lunch at the Kiangazi Resort.

7.2 Presentations

7.2.1. Opening of Formal Sessions

Opening Session

Mr. David Okioga, NOU of Kenya, and UNEP Consultant, acted as Master of Ceremonies for the Opening Session of the Workshop.

The meeting opened with a brief address from Ambassador Professor Michael K. Koech, Director General of the National Environmental Management Agency (NEMA) of Kenya on behalf of the Minister of Environment of Kenya, the Honourable Mr. Isaac Rutto. During his address, Ambassador Koech spoke of the brief history of NEMA (as it was formally established within the Ministry of Environment July 1, 2002), but also acknowledged the role of the NGO in environmental matters in Kenya and Africa as a whole, and urged those present to continue the good work they have started.

Next, Professor Sekou Toure, Director for the Regional Office of Africa (ROA), UNON, welcomed the participants to the workshop, and reviewed the history of the UNEP and cooperation, with NGOs, the Methyl Bromide Communication Programme, and spoke of UNEP's commitment to continuing support of the NGOs in the future.

Finally, Christine Wellington, Associate Methyl Bromide Officer, UNEP DTIE, thanked all those who had spoken before her and proceeded to give those present a further briefing on the progress of the Methyl Bromide Communications Programme, the strategy of OzonAction cooperating with NGOs, and finally the workshop objectives, structure and agenda.

At this juncture the workshop was officially declared open.

7.2.2. UNEP's Methyl Bromide Communication Programme: An overview of progress to date and highlights of the evaluative Synthesis Report.
Christine Wellington, UNEP DTIE

This presenter opened with a general overview of the Montreal Protocol Phase Out and the innovative approach taken at the 30th Meeting of the Executive Meeting, when UNEP submitted and had approved the Methyl Bromide Communications Programme (MBCP) for awareness raising by global NGOs. She then gave the rationale taken for the approach, pointing out that the average Article 5 NOU is in need of complementary activity for raising awareness on Ozone Protection in general. After briefly recalling the roles of the various participants in the MBCP, the presentation then went into the current evaluation of the MBCP in the form of the Synthesis Report being drafted by a UNEP consultant. The purpose of the Synthesis Report is to:-

- See if all project objectives have been met
- Assess the performance of all the NGOs who have at this time completed their project activity
- Evaluate overall impact of the project
- Highlight lessons learnt to improve on future project design, to outline future needs building on the momentum of this first MBCP.

To date, based on an analysis of the reports submitted by the NGOs, the overall findings of the Synthesis Report are:-

- ◆ Surveys carried out before and after the MBCPs in all countries show that the level of awareness of MB users increased as a result of the MBCP
- ◆ All NGOs effectively produced and disseminated brochures and other information materials about MB phase out
- ◆ All NGOs successfully organized workshops, field demonstrations and other meetings that educated MB users about the phase out, and provided an opportunity to gain 'hands on', practical experience about various alternatives (in total it is estimated that more than 725 stakeholders were involved in 22 workshops across the eight countries involved in the evaluation: Chile, Costa Rica, Dominican Republic, Ethiopia, Kenya, Philippines, Zambia, Zimbabwe)
- ◆ The NGOs were successful in generating national media coverage about the MBCP (newspaper, radio, TV), effectively raising awareness amongst the general public and MB users about MB alternatives and the demonstration results
- ◆ In all countries the MBCP enhanced the capacity of NGOs to promote MB alternatives and also brought together a wide range of stakeholders, sometimes to form a permanent multi-sectoral MBCP Committee to permanently handle MB issues (eg. in Ethiopia).

The final section of the presentation covered lessons learned and the next steps to be discussed during the workshop. Namely, based solely on the NGO reports submitted to UNEP, it was realized that:-

- The 6 months allotted for national activity by the NGO was generally too short a time to complete project activities, as several countries exceeded this time allotment
- Credible technical information and practical field demonstrations of alternatives were very important in persuading growers to seriously consider alternatives
- Networking and information exchange among NGOS was extremely important in developing and implementing the MBCP

Giving the identification of these first shortcomings, the participants of the workshop were asked to think across the next two days on ways in which project design can be improved, and activities sustained, asking themselves the following:-

- What can we specifically identify to achieve sustained awareness raising on MB issues?
- Are there still stakeholders who are uninformed?
- With whom can we form partnerships to gain the financial and technical support to continue our efforts?

With the framework for brainstorming set for the rest of the workshop, this UNEP officer closed her presentation to make way for the next speaker.

7.2.3. Results of Demonstration Projects on Methyl Bromide Alternatives in Africa *David Okioga, UNEP Consultant*

Mr. Okioga opened his presentation by explaining first to all present that under the Multilateral Fund, demonstrations were not an exercise in finding new alternatives, but instead consisted of pilot activity using previously tested alternative technologies to see what might be suitable for implementation on a country.

He then gave a history of demonstrations under the Multilateral Fund, outlining how the first methyl bromide alternative demonstration activity began in countries such as Zimbabwe, Senegal, Morocco, and Colombia once the MLF was given direction to fund such activities. He then provided a comprehensive table on demonstrations in Africa. He described what projects had been completed or were on-going, the category of alternative (pre- vs. post harvest uses) and what alternatives were eventually accepted.

These demonstrations have been useful, presenting countries with several alternative approaches for the replacement of MB. For example, for soil fumigation, approaches such as soilless substrates, compost, solarization, grafting and steam appear quite successful. Basamid and metam sodium are chemicals that also have had some success.

This presenter then emphasized the need for a country to be certain that it has an effective alternative in place before declaring that they have achieved total phase out. He gave real country scenarios where countries had declared total phase out, then found themselves with crops that could not be fumigated appropriately. He stated that at the moment there are no alternative to MB in the perishables sector in place in Africa, however because

fumigation of perishables generally takes place as a part of the Quarantine and Pre-Shipment (QPS) process, it is exempt from control under the Montreal Protocol. This therefore results in a lack of incentive to search for alternatives for this use of MB. Alternatives for fumigation in the durables sector remains problematic for the region.

Next discussed was the need for increased investment project activity in the region as a whole to accelerate phase out of methyl bromide. The Integrated Pest Management (IPM) approach, which is currently being standardized by the Methyl Bromide Technical Options Committee (MBTOC) and other experts, was named as something that should be widely implemented in the commercial sector. He also highlighted the fact that many countries in Africa have belatedly ratified or are in the process of ratifying the Copenhagen amendment, and are now racing the Montreal Protocol phase out schedule, trying to get public awareness and demonstrations in place.

The floor was then open for comments and discussion. Zambia NGO representative pointed out that although the presentation was a good one, there were also methyl bromide projects being carried outside of the Multilateral Fund. The Ethiopian NGO agreed that demonstrations are key to getting buy in from stakeholders in phasing out methyl bromide. But he stated that he felt that countries were placed in a difficult position, because they cannot get Multilateral Fund money for demonstration activity UNLESS they ratify the Copenhagen Amendment, yet do not wish to ratify the document, placing them on the methyl bromide phase out schedule when they do not yet have any knowledge of possible alternatives they can use. It was pointed out by both the presenter and the UNEP representative that African Ozone Officers would be meeting to discuss the issue of ratification at the African ODS Officers Network Meeting in Cameroon, October 1-4, 2002.

The final comments came from Malawi, which were quickly seconded by the Cameroon NGO representative. This participant told the meeting that when he did the first awareness survey under the MBCP, he found that the methyl bromide marketers were driving the prices of methyl bromide down so that they could always outsell the alternatives. HE indicated that this reflected the fact that most farmers and stakeholders in his country are simply of the mindset that they will “cross the bridge of phase out when they come to it”.

7.2.4. Country Presentations on the Status of their National Methyl Bromide Communication Programmes

Before the individual presentations began there was a discussion on the general experience of the NGOs with their respective National Ozone Units (NOUs).

Ethiopia described smooth open co-operation with their NOU; however the Malawi NGO representative experienced institutional infighting in his case, making it very difficult to carry out activities. This representative felt strongly that there is a need to address this at Africa Network meetings. The ROA Director, Mr. Sekou Toure suggested that there is a need for the UNEP Regional Network Coordinators (RNCs) to get feedback from the

regional NGOs to get an idea of how they foresee their relationship with the Compliance Assistance Programme (CAP) and the regionally placed UNEP Officers under the CAP. He put forward questions that NGOs need to entertain such as do the NGOs think that they can build on present methyl bromide programmes and infrastructure? Is there a need to build a special programme anew? The Director General of NEMA, Professor Koeche added that he felt it was important that those ahead in the MBCP process, and methyl bromide phase out as a whole, should inform others of mistakes done in the past.

The Zambian NGO then spoke of his experience working with the NOU of his country. He felt his case was fortunate, as things by and large went well for them. He pointed out that at the Regional Network Meeting of the Ozone Officers for English-Speaking Africa held in Zambia, the issue of NOUs and NGOS working together was raised. But it also highlighted problems of communication and control for NOUs. The RNC for Africa, Jeremy Bazye, proposed that the outputs of the NGO meeting might be taken forward to Regional Network meetings to continue to get NOU ideas on this issue. He felt that this would begin encouraging formation of an NGO-NOU relationship, and begin work towards combating potential bottlenecks in communication and extended collaboration.

The Kenyan NGO then gave of his experience, stating that the selection of the NGO was extremely long as they wished consensus on the final selection. The NGO CIN and the Government of Kenya had extremely close collaboration on every workshop, and public awareness activities were closely scrutinised for streamlining with government materials.

The NGO representative from the Dominican Republic did not admit to having such a good experience. She felt that the NOU had little idea or interest in the MBCP, nor saw the need for the project. She felt that this uninformed stance likely began because there was insufficient coordination between Pesticide Action Network (North America) (PANNA), who were to help the NOU through the NGO selection process, and the NOU. Thus, her offices got little official cooperation from the NOU; however, she was fortunate to know persons involved in demonstrations in Dominican Republic, persons in UNIDO etc, so she could do her work under the MBCP working with national stakeholders. But she felt that the NOU did not want to cooperate. She closed her statements saying that she would welcome the RNC for Latin America and the Caribbean bringing the issue of NGO-NOU cooperation to the Regional Network Meeting of NOUs.

David Okioga (NEMA/UNEP Consultant) then closed this open discussion by re-emphasising the need for governments as a whole to be more aware, and to forge a bond with the NGOs, since they should be in the know on all relevant activities so that they can speak authoritatively as international for a such as the Meeting of the Parties of the Montreal Protocol. He felt that the NGOs are key to giving a full picture of methyl bromide consumption in countries.

Countries were then invited to proceed with their individual country presentations.

**7.2.4.1. Comite Nacional Pro Defensa de la Fauna y Flora (CODEFF),
Chile (presenter Miguel Stutzin)**

Chile is the fourth or fifth largest MB consumer in Latin America (after Mexico, Brazil, Argentina, and, perhaps Costa Rica). Methyl bromide is imported from Belgium or Israel, of which 70% is used for soil sterilization (in the production of tomatoes, peppers, tobacco, cut flowers and various fruits, 22% for quarantine and pre-shipment (QPS) uses, and 8% for warehouse fumigations and the like. Chile has experienced significant increase in methyl bromide consumption, such that Chile is out of compliance with the phase out schedule of the Montreal Protocol phase out schedule. The methyl bromide baseline is about 379 tonnes, yet records indicate that up to the time of the meeting, 474 tonnes had been imported in 2002.

CODEFF had good experience with their NOU and had full cooperation, such that their Communication Project was complimentary to the government's activities and goals. In Chile, Multilateral Fund Projects are carried out by the Institute for Agricultural Research (INIA) within the Ministry of Agriculture, so the latter organisation was also fully involved in the MBCP. Two workshops were carried out in total. The first workshop was held in Chile's central agricultural section, and the second was held in the far north where there is greenhouse agriculture of tomatoes and other vegetables (very different forms of agriculture from the main central agricultural area). There were also surveys carried out in person across three days before the first workshop to get an idea of initial levels of awareness. The follow-up surveys were carried out during and after the second workshop, which itself took place after CODEFF had carried out its awareness raising activities.

CODEFF developed a colourful 12 page brochure 'Bromoro de Metilo: SU Eliminacion es Nuestro Compromiso', which provided information on methyl bromide's impact on the ozone layer, methyl bromide phase-out requirements and methyl bromide use and alternatives in Chile. 1000 copies were produced and distribution is ongoing (by mail and by hand) to farmers, media, NGO's, government officials, companies, ministries, and politicians. Press releases accompanied each workshop, and there were also newspaper articles and radio interviews done by CODEFF.

CODEFF amplified outreach by carrying out activities in the northern Arica region. Before this, there was no activity in the north towards MB awareness or phase out of any ODS, therefore CODEFF's activity was a first time initiative, where there was no longer sole focus on the central agricultural region of the country.

Workshop composition was as follows: 47% were users, 17% were government, 19% university; 10% media and 7% NGOs. In general, the workshop agenda was such that morning sessions were usually spent discussing the Montreal Protocol, whilst the afternoon sessions focussed on the technical aspects of available alternatives.

The CODEFF representative concluded his presentation stating that:

- The use of MB has increased in Chile, despite the efforts of the National Ozone Unit.

- Alternatives are not widely used, but only on a very small scale within Multilateral Fund demonstration projects.
- There is a lack of funding and support from the government and the agriculture (agro-business) sector. All the efforts and initiatives arise through the impetus of the MP-MLF projects and the National Ozone Unit (which consists of only two persons) at CONAMA.
- There is a need for longer sustained work with the users at the field level (Workshops, training programs and knowledge and technical transference)
- The creation of legal measures that prohibit the import and use of MB and other ODS is a key factor for the elimination of these substances.
- The NGO Communication Programme showed the importance of the coordination and complementary work of the NGO sector with the National Ozone Unit - CONAMA and UNEP in Chile.

7.2.4.2. Consumer Information Network (CIN), Kenya (presenter Samuel Ochieng)

This presentation was opened with a profile of CIN. CIN is a national consumers organisation with over 2000 members, 2 offices, and a permanent staff of 10. Its main areas of focus are Environment, Health, Food Safety and Trade. CIN works closely with the department within the Kenyan Government responsible for the environment, and the Kenyan Ozone Unit.

At the start of the NGO Communication Programme, CIN wanted to raise awareness among MB users enhance CIN capacity to promote MB alternatives and to disseminate information on alternatives to farmers. They developed a work plan with Kenyan ozone unit, consulting PANNA and UNEP as well. In doing their survey to look at initial levels of awareness, they described an initial lack of trust from farmers. However the NOU was useful in helping them to approach the farmers. CIN developed a plan of work, carried out surveys on awareness, established a data base on alternatives, created awareness materials and had activities on farmer education, which they did via farm visits and workshops.

Awareness materials and activities generated and carried out by CIN included:- 1500 copies each of 2 brochures (distribution ongoing); 2 audiocassettes produced; 38 farm visits; 4 radio programmes; execution of a National Workshop. In addition, CIN has enhanced the MB resources in their library, and they have received enhanced recognition from farmers and those promoting use of the MB alternatives. There has also been an enhancement in knowledge and information amongst staff of CIN.

In closing, the CIN representative expressed the following points:-

- There is a need for enhanced networking;
- There is a need for increased funding;
- There is a need to develop sustainable models to implement the programme.

He closed his presentation with the express wish that CIN receive further support to continue work in the area of MB phase out under a newer improved model of the Communication Programme.

7.2.4.3. Coordination Unit for the Rehabilitation of the Environment (CURE), Malawi (presenter Emmanuel Kamangira)

CURE began work under the Methyl Bromide Communication Programme in 2000. They began their work by identifying the MB users in Malawi, and found that more than 90% of imported MB is used the tobacco-growing industry. Tobacco growing is done mostly on commercial estates and smallholder farms. They then researched suppliers and the like, and drew a sample of 34 estates and users: 30 across North, Central and Southern regions, and 4 major suppliers from 15 districts across the country.

A questionnaire was developed based on the PANNA-designed questionnaire received in the initial Paris meeting. The survey in which the questionnaire was employed, was completed through focus groups discussions with estate/nursery supervisors, personal interviews with estate owners or managers, telephone interviews and through the postal service using self-addressed return envelopes.

The initial survey revealed that although there was some level of awareness about the hazards of MB, not many people were aware of the global phase out schedule. Most farmers cited that they continued to use MB because it was cheaper than alternatives they had been exposed to, and they were satisfied by the efficacy of MB. Many users, however, said that they would switch to alternatives provided that incentives and technical support for the change over were provided. Also, many small holdings are using old treatment methods based on indigenous knowledge of pest control.

This presenter reported that nine different types of awareness materials were produced, including:-

- 700 desk and wall calendars for 2002 (in English, Tumbuka and Chichewa), distributed to estate owners, institutions, pesticide suppliers, the general stakeholders.
- 200 T-shirts (English message), distributed to journalists, farm owners, those interviewed during the survey, estate supervisors/owners.
- 8000 brochures posters (in English, Tumbuka and Chichewa), distributed widely, including students, members of academia, government departments, journalists, decision makers, estate owners, general public.
- 800 information booklets posters (in English, Tumbuka and Chichewa), distributed to estate owners and relevant institutions.
- 6000 posters (in English, Tumbuka and Chichewa), distributed to estates, institutions, primary schools, and put on display in public places, government departments etc.
- 45 radio slots (in Chichewa and Tumbuka), where 3 jingles/day were played during one week, 2 tunes/day during the second, and 1/day during the third.

CURE engaged the media by holding a Media Sensitization Workshop December 5, 2001, in order to provide journalists with user-friendly technical information to enable them to write meaningful and relevant articles on MB issues as the MBCP progressed in Malawi. The journalists were then taken on a tour of an experimental nursery for alternatives. The presenter for CURE indicated that this workshop had the desired effect as some journalists did indeed write features in the main newspapers during the course of the MBCP.

CURE, however, has not completed their MBCP activity. They had planned both a press conference and awareness workshop, but due to administrative and financial problems within CURE, have not finished up their planned activities. The presenter indicated that they had also to complete their second survey.

7.2.4.4. Environmental development action-Ethiopia (Enda-Ethiopia) (presenter Fantahun Assefa)

Methyl Bromide has been used in Ethiopia since 1960 for the treatment of grain and soil. Although consumption of this substance peaked in the early 1970s, a comprehensive survey carried out in 1995 indicated that the total consumption of MB was 21.0, 30.0, 32.0, 35.0 and 36.0 metric tonnes in 1994, 1995, 1996, 1997 and 1998, respectively. The uses of MB consumed in 1994, were 42% for quarantine treatments, and 29% for each of soil treatments and post-harvest treatments.

The presenter then took participants through the strategy used in Ethiopia to implement the MBCP, with a step-by-step description of activities undertaken.

The first step lay in meeting with the NOU, and identifying, then interviewing the large MeBr users in Ethiopia. A total of 44 interviews took place, covering 11-regulatory Government Institutions; 10 Exporters and importers of Commodities; 6 Private Fumigation Companies and 17 Commercial farms.

Next, the initial survey was carried out. The result of the survey showed that the amount of MeBr consumed from 1998 to 2000 marked a sharp decline at a national level from the previous 5 years, and was only 5-7 tonnes. These results, as well as general information about the science of ozone, the Montreal Protocol, and alternatives to MB, were presented in the first workshop held June 21, 2001. In addition an action plan was developed as a major output of the workshop, such that participants agreed:

- ◆ to establish a network, to be coordinated through Ethiopian Agricultural Research Organisation (EARO) and the EPA, Ethiopia's Environmental Authority (the NGO is also part of the network);
- ◆ to solicit funds to organize training, demonstration trials, cross visits, provision of inventory and other relevant activities;

- ◆ to ultimately speed up the ratification process of the Copenhagen Amendment, which is currently in the pipeline through EPA.

On the heels of the outputs and recommendations of the first workshop, a second workshop was held, the purpose of which was the establishment of a formal, permanent network amongst stakeholders to address methyl bromide phase out in Ethiopia. In addition, the public education materials developed by Enda-Ethiopia were presented and distributed to participants. These materials included brochures and flyers developed by the NGO, reports on workshop proceedings, information on the results of demonstrations carried with the Ethiopia Tobacco Enterprise, and UNEP DTIE materials on MB. In addition Enda-Ethiopia carried out media outreach by posting articles both in the print media and on key national and regional web sites. Relevant interviews were also aired on electronic media to national audiences. The NGO at this point paused to briefly describe the initiative taken by Enda-Ethiopia and the Ethiopia Tobacco Enterprise to do a demo project for the region, exploring the effectiveness of solarization in combination with amendments for the control of nematodes and other soil borne pests in tobacco farming. The workshop concluded with the EPA being urged to quickly call the first meeting of the newly established network.

The presenter then described the results of the final survey, which reflected that there was indeed an enhanced knowledge of MB, as all stakeholders expressed an increase in knowledge on general ozone issues, the Montreal Protocol and available alternatives by the time of the second survey. The organization, output and quality of materials generated were all rated highly by participants, and the majority of participants had seen the interview with the Ethiopia News broadcasting corporation.

The presenter felt that the MBCP had provided impetus for the ratification process of the Copenhagen Amendments and the implementation of the Environment Policy of Ethiopia. He felt that there was increased awareness of stakeholders towards the consequences of ozone layer depletion, and that stakeholders now had better access to education materials produced by the UNEP DTIE OzoneAction Programme and MBCP in Ethiopia. Finally the establishment of networking under the umbrella of EPA will boost the group dynamics between stakeholders (government, NGOs and private companies). Further, as a member of the newly established MB network, Enda-Ethiopia will remain fully involved in the phase-out of MB in Ethiopia.

The presentation from the Ethiopian NGO ended with an outlining of future plans, namely to strengthen the new MBCP Network, and go forward as a national body to solicit funds for future demonstration activities for alternatives for both pre- and post harvest uses of methyl bromide. Follow up of the ratification of the Copenhagen Amendment was named as a priority, as was the continued procurement and development of awareness materials on MB alternatives and phase out. In addition the working relationship with the NOU should be strengthened so that there could be cooperation in the development of project proposals which might be submitted to global funding agencies. He also stressed the need for assistance in organizing and gaining support for visits to neighbouring African countries, where new or different alternative technologies

were being implemented or demonstrated, particularly since Ethiopia had no more funds for their own demonstrations.

**7.2.4.5. Environmental Conservation Association of Zambia (ECAZ)
(presenter Lovemore Simwanda)**

Zambia was fortunate in the sense that, the issues of Methyl Bromide phase-out process were being discussed as early as 1995, with the Environmental Conservation Association of Zambia (ECAZ) working very closely with the Tobacco Association of Zambia to begin developing a Methyl Bromide phase-out project.

Tobacco growers initiated a pilot phase out project called “**Bite the Bullet**” in search of alternatives. Tobacco Farmers tried half to four hectare-size float beds of irrigated and dry land plantings. This pilot project was made possible through a loan support from the European Union Development project/Enhancement Exporter Support Mechanism (EDP/EESM) Secretariat and national authorizing office. Apart from making it possible to bring in inputs to try out float beds, this support also made it possible for the Tobacco Association of Zambia to hire a well known consultant on commercial application of float beds systems in plant production.

The Zambian then went into describing the initiation of the MBCP. ECAZ first identified key stakeholders for the MBCP, enhancing the already existing working relationship with the National Ozone Unit to identify unknown stakeholders. These included individual farmers, distributors, government Ministries, Farmers union, exporters, importers, Bureau of standards etc. The MBCP was implemented in three regions of the country namely Central, Lusaka, and Southern provinces where MB use was prevalent. Levels of use and availability of MB were ascertained through questionnaire and focus group discussions during the field visits.

Information dissemination about the MBCP was done through the and various forums such as farmer’s newsletters, email news flash, ZNFU annual congress, farmer’s commodity meetings, agriculture and commercial shows, Radio live call in (Voice of the Farmer) and also during the English speaking countries Ozone Officer’s Network meeting in Lusaka. At the latter meeting, the Mulungushi Declaration was made for those countries that had not yet ratified the Copenhagen Amendment to do so, at the earliest possible date.

The NGO described a decrease in MB use during the MBCP. MB consumption went from 35.2 tonnes at the time of the first survey at the start of the MBCP, to 26.5 tonnes at the time of the final survey. The tobacco sector in particular saw a great reduction in MB uses, reporting an 18.6% reduction as a sector. At this juncture, the presenter proposed that if they had more funding for a more intensive programme the reduction of consumption might be even greater.

The NGO also indicated that a number of farmer groups in various crop commodity affiliations, had started a number of farmer to farmer campaigns to raise awareness about the, though limited in nature. The Tobacco and Horticulture/Floriculture growers were highlighted for this activity, spurred by the fact that this group includes the organic producers and processors who grow for export and hence recognize the importance of acknowledging the international phase out schedule to prevent slumping in their international markets. In contrast, distributors and marketers of MB have not taken a keen interest in encouraging the clients to look at possible alternatives, as they are wary of being caught with stockpiles of unsold MB in their warehouses. However, the Zambia National Farmers Union in collaboration with the ECAZ is encouraging its members to adopt certain alternatives to Methyl Bromide such as float trays, cow dung, pine bark, solarization, and hydroponics. In carrying out their campaigns, the farmer commodity groups are using the materials developed during the MBCP, such as audiocassettes, brochures and recorded Radio and Television programmes.

The presenter highlighted the fact that the MBCP also led to the development of a number of links with institutions in the region with more experience and expertise in alternatives. The Kutsaga Tobacco Research Station in Zimbabwe; Agriculture Research Institute in Malawi and the Agriculture Consultative Forum, a technology, mouthpiece on agriculture in Zambia, were specifically named. These new links proved useful as it provided users and stakeholders with opportunities to attend field days and specialized training. This was especially true in the case of Kutsaga Tobacco Research Station in Zimbabwe, where there was farmer to farmer information exchange between experienced Zimbabwean tobacco farmers and the less experienced Zambian farmers.

Next, this presenter took participants through a cost comparison table for floating seedbeds (per hectare) versus traditional MB technologies in tobacco production. He showed that although there was an initial investment required in implementing the floating seedbed alternative, that when one discounts over a three year period, the yield of the seedbeds makes it more profitable than using the traditional MB approach. As a result, ECAZ has requested economic reviews of the agricultural systems of Zambia and the region, and has approached government to put incentives in place to encourage use of alternatives.

In concluding, the NGO outlined future hurdles for Zambia in the phase out of MB. As Zambia has a large European market for its products, and agriculture is the mainstay of the Zambian economy, the swift ratification of the Copenhagen Amendment is crucial. He also called for a second phase of the MBCP, to emphasize the introduction of cost-effective alternatives with simple applicable technology for easy adaptability.

Finally, he called for assistance in making it possible for Zambia to receive a grant from UNIDO like to the one being offered to Brazilian farmers, as a way of encouraging the quick phase-out process and adapting to new production alternatives. The grant programme should give 100% grants to small-scale farmers and 50% grants to large-scale growers, for period of about four to five years to encourage grower adhere to the phase-out schedule especially since Zambia is a very poor country.

**7.2.4.6. Fundacion Agricultura y Medio Ambiente (FAMA)
(Dominican Republic)(presenter Andrea Brechelt)**

This presenter opened her presentation by highlighting the nine MB products registered for use in the Dominican Republic, and the seven known current importers of these substances. Next she showed that there is a great disparity between the reported import figures, and the consumption reported by individual companies. Particularly after 1996, one sees import figures as much as 5 times smaller than that reported consumed by companies, indicating illegal imports, or perhaps consumption from stock piles imported in previous years.

Next she described the nature of consumption across sectors. Melons are the main consumers of MB (63% of total); flowers (20)%, tomatoes (10%), tobacco (5%). In the Dominican Republic, there are farming enterprises rather than farmers, and each can consume copious amounts of MB annually: one melon farm reportedly uses 150 tonnes for each of two times a year.

Because of this farming enterprise organisation, it was relatively easy to identify stakeholders, and the MBCP reached some 85% of users in the country. This NGO also made contact with all institutions implementing MB phase out projects, making use of the fact that these institutions have a permanent contact with users, and so would facilitate enhanced communication with farms. Having identified stakeholders, FAMA then created a 3-man working team, and elaborated a workplan. First they had to translate the survey questionnaire provided them by UNEP, and produce Spanish material for workshops and farmer training (using UNEP and PANNA awareness materials as a basis).

In implementing the survey, FAMA visited users or took part in special meetings to gather larger users of any particular sector. In total 7 flower growing companies were interviewed, 30 fumigation companies, some tobacco growers (very few as this is a sector that is rapidly shrinking), and the largest MB consumer, the islands melon farming enterprise. The results of this first survey were then evaluated.

FAMA held one workshop, with 45 fumigation firms in Santo Domingo, to discuss MB issues and alternatives. One month later, they then took part in a regional workshop held in the Dominican Republic, at which the majority of the local melon, flower and tobacco producers were in attendance. This workshop (which was coordinated by UNIDO, the Dominican Republic NOU and a local agricultural organisation) was used as an opportunity to highlight the MBCP as well as look at the results of national and regional demonstration projects.

The results of the national demonstrations varied in their success across sectors. The tobacco sector is relatively small with one large nursery supplying seedlings locally. The move to IPM and floating seedbeds from MB has therefore been a relatively easy transition. In researching alternatives for the cut flowers, the best result was achieved

with steam treatments of soil. However there is a dearth of efficient, large steam machines, resulting in a higher cost for such treatments (MB costs about 4 RD\$/m², while steam is 6 RD\$/m²). Apart from steam, the next best alternative is IPM in combination with Busan, Basamid and Bio-fumigation. The melon farm involved used some 250 kg MB/ha twice a year on 750 ha; but stated that they had not found a cost effective alternative, and so would continue to use MB.

For the final phase of the MBCP, FAMA then executed the second and final survey. Results of the survey indicated that most farmers and enterprises were now aware, and the use of the print media to showcase the 5 or 6 articles produced was especially effective (one paper had a circulation of 900,000 and the other 40,000). In addition they saw the publishing of articles in other magazines, complete with photos to showcase the expensive injection apparatus for MB applications, to encourage change and reconsideration of the need for such. Brochures and TV spots were also used (UNEP's 'Healthy Harvest' video was broadcast), however FAMA has concluded that the move away from MB in the Dominican Republic, particularly for the melon producers, will not be based on ecological considerations, but economical ones. There is also a need to continue to supply more up-to-date information on economically feasible alternatives to stakeholders if a real change is to be brought about in this country.

7.2.4.7 Pesticide Action Network Philippines (PAN-PHIL)(presenter Sampaguita Quijano)

This presentation from the Philippine NGO opened with her giving an overview of her team's general and specific objectives in carrying out the MBCP for the Philippines. She then on to describe the activities carried out.

PAN-PHIL began by gathering initial data on MB importations from the Fertiliser and Pesticide Authority (FPA), which also acted to easily identify users, and swift execution of the first survey. In their investigations they found that only two large milling companies and a few key distributors import into the Philippines. Only Certified Pesticide Applicators (CPAs) are licensed to use MB, but this NGO decide to incorporate all possible users into their activities, even if they didn't import directly. Apart from the FPA, the Philippine NOU and local UNDP were also very helpful in helping this NGO.

PAN-PHIL initially surveyed a total of 60 respondents, carrying out detailed surveys in person, on the telephone, and in writing. Respondents were from pest control operators (PCOs) (being the majority), milling companies, tobacco corporations, multinational corporations, golf courses, and government agencies. Those surveyed represented approximately 25% of the total volume of imports of methyl bromide into the Philippines (for the year 2000). At the time of the first survey only 53.3% of those surveyed were still using MB. Many knew that MB would be phased out, but didn't know the exact phase out schedule. Most had an idea of alternatives. The NGO indicated that the Philippines is seeing an increase in MB consumption, but that these are mostly for QPS purposes, as

certain countries (eg. New Zealand, Canada, Australia), were requesting MB QPS treatments of goods before they leave Philippine ports.

PAN-PHIL carried out an extensive awareness campaign, and generated many materials. It was in the awareness in particular that this NGO cooperated with FPA, the NOU, and the local UNDP. They prepared a 37-paged brochure, a 6-paged newsletter as well as Press releases. Written articles appeared on 6 occasions in the print media (2 in local nationwide daily newspaper, 1 in each of the village newsletter, a local agricultural magazine, an environmental newspaper and an environmental magazine). In addition PAN-PHIL had one nationwide radio broadcast with a host from the local UNDP to discuss the MBCP and MB issues.

PAN-PHIL organized 6 workshops on methyl bromide alternatives with a total of 229 participants. Participants included PCOs, mill managers, company representatives, and certified pest applicators. These workshops focused on providing basic information on the methyl bromide phase out and alternatives, particularly alternatives for structural and grains fumigation, and the UNDP demonstration project on methyl bromide alternatives in Davao. Representatives from PAN-PHIL gave presentations at these workshops, showed UNEP's *Healthy Harvest* video and distributed their information materials.

A number of issues were raised in the workshops. Increasing amounts of MB imports are likely correlated to an increase in demand for exports. However, export requirements from other countries prevent PCOs from using alternatives (although it was acknowledged that this use of MB was not excluded by the Montreal Protocol). Milling companies are open to considering alternatives for fumigating their buildings, but they need help in finding out what method is best suited for them. Indeed, one company sought assistance from their American parent company, and was disappointed to learn that their US counterparts were still in the process of finding alternatives for themselves. The FPA supports the phase out of MB and is now considering concrete steps to take in enforcing it.

For the final survey, the NGO received 48 complete responses. 56% of those surveyed said they learned more about methyl bromide from PAN-PHIL, and 46% of respondents said that the new information will influence the way in which they use methyl bromide. The workshops were related highly by all. Most said they benefited particularly by the printed materials generated by PAN-PHIL.

The PAN-PHIL representative closed her presentation by summarizing the impacts of the MBCP. The major impacts were that one of the major milling companies was now actively seeking MB alternatives for storage fumigations, the FPA is now considering quota requirements for importers, and finally MB imports had decreased from 67,164 kg in the year 2000 to 58,212 kg for the year 2001. She also cited some limitations and problems encountered during the MBCP, namely: the reshuffling of Ozone Desk in Philippines; the fact that few radio hosts were willing to include the topic in their programmes; the lack of experts in the Philippines to advise on SPECIFIC MB alternatives. This NGO also felt strongly about the exemption of QPS treatments by the

Protocol phase out schedule, since they could see that consumption in this area is growing rapidly. Despite the Protocol's exemption, they called for the national FPA to take concrete steps to phase out MB in this area.

**7.2.4.8. Instituto Regional de Estudios en Sustencia, Tóxicas (IRET)
(Costa Rica)(presenter Fabio Chaverri)**

This presenter works with IRET, but is also a part of the Pesticide Action Network (PAN). In his presentation, he focussed on the work done by IRET in the area of MB alternatives, even those projects outside of the MBCP.

Costa Rica's agriculture was described as highly valuable, intensive, and characterized by the use of highly advanced technology techniques. The particularly valuable cash crops grown are melons, grown in the Pacific areas, and cut flowers, which are grown in the central areas of the country. There is also a much-diminished use for the banana industry. Costa Rica has become a high level MB user in recent years, with a rapidly accelerating use of the fumigant, such that they are now the 4th or 5th largest consumers. Costa Rica experienced a doubling in consumption between 1992 and 1999, with an average 'freeze' consumption level (1995-1998) of 765 tonnes.

The presenter then gave participants a visual of the intensive, commercial nature of farming in Costa Rica. Slides were displayed showing melon farms 10,000 ha in size, with mile-long crop rows. High tech systems of pesticide and fertiliser applications are employed on such farms. Cut flowers are also grown on extremely large plots, using equally advanced pesticide and fertiliser treatments. Large canisters of MB, are used with a tractor to assist in applying it. Cut flower farming enterprises use an extremely high application rate of 250kg MB per hectare or more. Melon and cut flower growers pursue this aggressive use of MB against nematodes (*Meloidogyne* sp) and fungi (*Rhizoctonia* sp, *Fusarium* sp, *Phytium* sp, *Phytophthora* sp), and for weed control (*Cyperus* sp).

On July 21, 1998, the Legislative Assembly of Costa Rica, approved the act # 7808 recognizing the Copenhagen Amendments. In 1999 they started national MB phase out programmes, first with two demonstrations for melons and cut flowers, followed by an investment project phase. In the case of the demonstrations, the Costa Rican government took the unique step of uniting farmers, universities and NGOs, so that there was a transparent process, and knowledge was shared by all. UNDP also lent support as the implementing agency of the actual demonstrations. The main agriculture research centers of the public universities, melons and cut flowers growers associations and an environmental NGO initiated a collaborative working group to find and test alternatives proposed by Montreal Protocol. IRET worked closely with the universities and other research bodies involved in finding suitable alternatives.

IRET therefore used the results of the demonstration activity that had taken place to provide input to the MBCP. The demonstration project operation was in three phases: first there was a workshop for MB users, the execution of the demonstrations, and then the dissemination of results etc. Key note speakers from Colombia were involved, as they

grow cut flowers without MB. However there was a problem finding cases of technically and economically feasible alternatives for melon production. 1,3-D, PIC, Metham Sodium and Dazomet were chemical alternatives that were tried; but the agricultural areas are in water sensitive areas, therefore chemical alternatives were not the best options. In investigating non-chemical alternatives, they experimented with steam, but it proved too expensive as they had to use petroleum-burning generators to produce the steam.

Solarization proved a very successful option, outperforming MB in controlling pests. There was however a problem of exposing the field irrigation systems to the extreme heat involved in the solarization process, but this was alleviated by placing a strip of paint on the irrigation system as protection against the sun. The solarization process was further seen as an optimal solution, since the sunny season coincides with the November to February melon growing season, and the weeds that are left to grow between the melon rows act to prevent soil erosion during heavy rains.

Despite efforts made during the demonstration to raise awareness, with the neighbouring countries like Guatemala etc. still use MB with impunity, there was a need to continue awareness efforts, and create incentive for local farmers. The demonstration did decrease MB consumption by about 200 tonnes across the time the project ran, but there was a need to continue with the farmers to accelerate the phase out process, and to meet the 2002 freeze.

With the demonstrations finishing in 2001, IRET immediately sustained the work carried out by overlapping their work with the demonstrations with the MBCP. Beginning in March 2001, IRET was able to interview five farms that used 587 tonnes of methyl bromide in the year 1999, representing 62% of total methyl bromide use in Costa Rica for that year. IRET then developed and distributed nationwide a short brochure with colour photos that focused on methyl bromide's effects on the ozone layer, the global phase-out schedule, methyl bromide use patterns in Costa Rica and the alternatives most appropriate for this country. IRET also developed a video "The Fifth Commandment, a Way to Preserve the Environment" about the methyl bromide phase out in Costa Rica which was distributed and shown at workshops. There was a special program in August 2001 by the Government TV and the main TV news report (7 dias) also covered the methyl bromide issue.

IRET organised two workshops to educate stakeholders about the methyl bromide phase out and alternatives. The first was in May 2001, for cut-flower growers. There were twenty participants, including ACOFLOR (national organisation of cut-flower farms), representatives from UNDP demonstration project and FAO, and agricultural researchers. Presentations focused on evaluating various alternatives to methyl bromide, examining the economics of alternatives and developing recommendations for assistance. A similar workshop for melon growers (47 participants) and a lecture (85 participants) were also held in June 2001. IRET generated significant media coverage for these activities by eight radio channels, and five newspapers. IRET received very positive feedback about the workshops, with many participants commenting about how much new information

they learned and how useful the workshop was in helping them develop a strategy for implementing alternative pest control methods.

The final survey included responses from stakeholders on 8 farms (20% of all farms in Costa Rica), representing 30.3% of total methyl bromide consumption in Costa Rica. All respondents indicated an enhancement in their general knowledge about methyl bromide's effect on the ozone layer and the Montreal Protocol restrictions. All respondents also learnt about various alternatives to methyl bromide, including the use of solarisation, metam sodium, Telone, organic amendments, and chloropicrin. Respondents identified the need for more technical information and research on farm.

7.2.4.9. Tobacco Research Board(TRB) (Zimbabwe) (presenter Gareth Thomas)

This presenter chose to highlight the way in which the Tobacco Research Board of Zimbabwe married their own expertise with methyl bromide alternatives, with awareness raising, as called for under the MBCP.

Zimbabwe's annual consumption of MB was reported at around 758 tonnes. The distribution of consumption across sectors was described as follows: 66% on tobacco; 29% on cut flowers (this sector is fast growing as several tobacco planters are moving into cut flower production); 4.6% on durable commodities; and 0.4% on other horticultural crops.

55 Zimbabwean farmers, predominantly tobacco growers (tobacco is the largest user of methyl bromide in Zimbabwe) responded to the first survey; although several of these farmers also grow cut flowers. While the vast majority of respondents knew about alternatives to methyl bromide, 87% had not yet tried these alternatives themselves. Respondents identified TRB research, more information, field days/discussion groups and demonstrations as some of the assistance needed to replace methyl bromide.

The TRB did much then in the way of providing more information and demonstrations for Zimbabwean farmers during the MBCP. In their initial approach, the TRB set up several small, tobacco float tray demonstrations at the Tobacco Sales Floors. There was also prominent display of UNEP posters wherever possible. There was also initial outreach of the MBCP through several publications: Farmer Magazine (Weekly, circulation 5000); EFGAZette (Monthly, +165 grower members); Zimbabwe Tobacco Magazine (Monthly 5000); "Keeping in Touch" Newsletter (Periodic, 5000); The Financial Gazette (Weekly, 35,000 hard copies, 390,000 hits online); Zimbabwe Tobacco Magazine (Monthly, 5000); farmer Magazine (Final Copy, 5000). But the TRB capitalized in particular on their own 'Dear Grower' Tobacco Letter with 1626 recipients, from several sectors and organisations, such as commercial tobacco growers, government extension workers, consultants, chemical companies, libraries, media houses, irrigation companies, banks, trade organisations, farmers' associations, and agricultural education institutions. They also made use of a "Dear Grower" Export Flower Letter to raise MB

issues (270 recipients). In addition they produced a booklet 'Alternatives to the use of MB in tobacco production in Zimbabwe', which described the results of the TRB/UNIDO demonstration project on alternatives to tobacco. There were also three awareness-raising radio broadcasts across one month between March and April 2001. There was also additional outreach, where an additional survey on MB issues was carried out with 270 flower growers by the Export Flower Growers Association of Zimbabwe (EFGAZ).

In addition, the TRB carried out training as part of their MBCP activities, as they were suitably positioned to do so. Indeed their training efforts resulted in 50 growers across all of their districts enlisting to grow 1 to 2 ha worth of float beds to evaluate ease of off-station implementation, and to establish the farms as field day venues. They held a practical workshop at the TRB's Kutsaga Research Station, which involved participation from a leading local agricultural organisation, extension workers from Malawi, Mozambique, Tanzania, Zambia and Zimbabwe, 36 commercial growers and 4 small-scale growers and the Zimbabwean NOU, UNIDO, MB suppliers and suppliers of alternative technologies.

The TRB used extension meetings extensively to promote the aims of the MBCP (24 meetings and 2 presentations in total were held). 10 circus meetings for small growers were held in various locations in Zimbabwe, and there were circus meetings held at 14 of the 15 tobacco districts, attended by about 560 growers. The TRB also worked with the 5 Farmers' Development Trust Training Centres to set up demonstration beds across the country, which were specifically for small-scale grower training. 16 farm discussion groups were all held where various aspects of the methyl bromide phase out and alternatives were discussed. The TRB also worked with an Israeli company, to look at chemical alternatives (namely Telopic and Metham Sodium), alongside the floating seed bed during 4 days of demonstrations. A total of 200 farmers attended. However the farmers preferred the floating beds. The annual Harare Agricultural Show was also used to highlight the float bed system.

By the end of the MBCP, the TRB had managed to get 49 volunteers to grow at least 1 ha of floatbed seedlings. This demonstration activity was implemented in a controlled manner, with organised field days at various stages of growth of the seedlings. A total of 16 field days were held, with some 310 participants attending. Further training centres were also used to introduce these on-farm demonstrations to students and small farmers. The NGO was of the opinion that a video to highlight all that took place during the MBCP would have been an asset to raising awareness, but funds were limited. The TRB did however have further public outreach activities with interviews of key members on national TV and radio. He did however, feel that this practical demonstration and training activity had a far greater effect on changing behaviours than any written materials, or other forms of media outreach would have on their own.

The final survey conducted did indicate that the TRB's activity was positive. 73% of respondents had obtained information about methyl bromide from the TRB/MBCP, and about half of respondents said that they learned about alternatives that would be appropriate for their operations, and about half said they would try using an alternative on

their farm or company in the future. Respondents also identified further assistance or help needed to replacing methyl bromide, which included more research on specific alternatives, more extension services, more information about the floatbed technology, more facts and booklets, more field days and financial assistance to make the change.

This presentation ended with the NGO presenting the French bilateral project “Zimbabwe: Phase Out of Methyl Bromide in the Tobacco Sector (France) (UNEP/OzL.Pro/ExCom/37/56), which was to fully implement float tray technology in Zimbabwe. However, due to the socio-political unrest in Zimbabwe, this project has been deferred. There is now the fear that Zimbabwe will not be able to make the 2008 phase out of the approximately 500 tonnes of MB reportedly being used at present by tobacco farmers, as had been planned. Zimbabwe is absolutely unable to raise the investment dollars needed to implement the float bed system, and so is in urgent need of funding.

7.2.4.10 Pesticide Action Network (PAN) Africa (Senegal) (presenter Henry René Diouf)

The MBCP activities began in Senegal in January 2002, acting to complement and continue the previous work of the Direction de l’Environnement et des Etablissements Classés (DEEC) on MB phase out. As part of its activity, the DEEC had made an inventory of Senegal’s uses of MB, and found that one company, NOVASEN, was the sole user of MB. Following this discovery, NOVASEN became the focus of UNIDO demonstration activity, such that since 1999, NOVASEN has replaced MB with phosphine, and all peanut farmers have been taught to use phosphine.

With this history, PAN Senegal felt that the MBCP could not start without an evaluation of the progress of the substitution of MB in Senegal. Investigations by the nGO have indicated that NOVASEN has indeed completely changed over to the use of phosphine. Moreover, POLYCHIMIE, the principal supplier of MB for NOVASEN, no longer imports MB. The substitution of MB by phosphine is well on its way by NOVASEN, and will likely be a permanent change for the company. Furthermore, the results obtained during the first year of phosphine use, the mastering of the alternative technology by the NOVASEN agents, and the difficulties of supply tied to methyl bromide, make it unlikely that NOVASEN will return to using this ODS.

However, some problems have been detected. The duration of phosphine fumigations carried out rarely last more than 3 days, rather than the normal 5 days. This poses a problem for the efficacy of the fumigation, the exposure of the fumigator during the uncovering of the fumigated areas, and the development of pest resistance to phosphine. At the end of 3 days, the phosphine has not totally completed its action, and the pests are not totally eliminated. A UNIDO expert had confirmed to PAN Senegal that at the end of 3 days 90% of pests are generally eliminated; and in this context, the efficacy of the phosphine fumigation will depend on the degree of initial infestation. In addition, he stated that the concentration of phosphine (released by the phosphide, and which actively destroys pests), is almost the same after 3 to 5 days of fumigation. Further, the risks of

poisoning are almost the same whether one stops fumigation at the end of 3 or 5 days. The problem at this point is to find strategies to protect fumigators during the fumigation process (full-face gas masks to stop inhalation of phosphine during uncovering of the fumigation area etc.). During fumigation, metal phosphide (PH_2), which has an odor, is exposed to air, to generate the active phosphine (PH_3), which lacks an odor. Fumigation experts have emphasised that although there is more odour generated at the start of a fumigation (due to the smell associated with the relatively harmless phosphide), risk of poisoning is actually low. The greater risk actually exists at the end of the fumigation, when there is no smell, but concentrations of poisonous phosphine are high.

Visits to fumigation areas permitted the NGO to discover some of the difficulties which accompany phosphine use. The fumigation parallelepiped (symmetrical stacks) are not totally airtight. The process of sealing the fumigation areas is very simple. The peanut sacks are placed one on top of the other to form the parallelepiped, and then covered by a canvas, which meets the floor surface. The edges of the canvas are covered with sand to make the fumigation area airtight. However, in all cases, the canvas is not well sealed by the sand, and there is some leakage of phosphine, affecting the efficacy of the fumigation process. In addition, there is some escape through the floors, because of the penetrative powers of phosphine, so that a large part of the phosphine is lost, and does not act in the fumigation. Thus, it is necessary to also ensure that fumigations are carried out on impenetrable surfaces (whether on especially hard floors, or on a layer of canvas)

After this evaluative mission, the NGO wanted to get a real snapshot of the fumigation situation in Senegal. They carried out a survey of those large structures which had the potential to be users of methyl bromide in the course of their activities. These included, among others, flourmills, large importers, exporters of agricultural products, and large producers. They also envision interviewing the largest chemical importers (Senegal does not produce chemical pesticides). The UNEP survey form was lightly reinforced to obtain the opinions of those who have never used, or no longer use methyl bromide, to understand the real reason that motivated them to abandon the use of methyl bromide. In addition, PAN Senegal constructed a separate questionnaire for local distributors of phytosanitary products.

After these activities, it is a matter of carrying out the following tasks during the rest of the MBCP:

- To identify the most appropriate MB alternatives in the context of Senegal. Emphasis will be placed on those techniques of Integrated Pest Management
- To develop public awareness tools and information on the health and environmental risks of MB, and on MB alternatives (brochures, fliers, posters)
- To distribute public awareness materials

- To make press releases on the MBCP to better inform the public on the international restrictions and phase out of MB;
- To organize a workshop on awareness, training and the sharing of experience on the dangers of MB and on MB alternatives. This workshop will bring together public and private sector agricultural organizations, trade organizations, crop producers, phytosanitary bodies, fumigation technicians and phytosanitary experts
- The evaluation of the MBCP by survey, which will be done after the training and public awareness activities
- To publicize the results of these activities through ‘open-day’ exercises at PAN Senegal, the print media and the electronic media
- To interact regularly with the Senegalese NOU to fully involve the NOU in the project.

7.2.4.11 Rice Exporters Association (REA) (Thailand) (presenter Chamlong Lapasatukul)

The Rice Exporters Association is an old organisation founded in 1919. This organisation acts a supplier of rice to local markets, seeks out new markets and business partners, are responsible for the inventory of local rice stocks and related statistics, making a weekly report of rice trades and the movement of rice in Thailand. Indeed REA used the weekly meeting for the rice people to discuss movement of rice, and took advantage of these meetings in executing the MBCP. At the time of the workshop, REA was in the process of carrying out its second survey of the MBCP to analyse the impact of the awareness raising activities the NGO carried out in Thailand. Therefore the presentation given was to give background on the other MB phase out activities projects of which REA has been a part, and which were used to generate awareness raising information for use in the MBCP.

In displaying the MB consumption figures for Thailand, it was clear that the use for the storage of both durable and perishable commodities has increasingly dominated that associated with QPS from 1997 to 2001. By 2001, over three times as much MB was being used for storage fumigation as was being used for QPS treatments, with 693 tonnes being utilised for commodity fumigation versus 208 tonnes being used for QPS.

In 1999, a demonstration project on MB alternatives in Grain Storage was launched. Integrated Commodity Management and the use of Phosphine in (2%) Carbon Dioxide were the approaches promoted by this demonstration. These alternatives could be used in the fumigation of durable commodities such as rice, maize, hard pellet tapioca, beans, peas, and feed, as well as the QPS treatment of perishables such as orchids and asparagus spears (exported to the EU and Japan), to ensure the elimination of lepidopterous larvae and the like. Storage keepers along with 30 fumigators were involved.

The REA has played a significant role in augmenting the identification and informing of stakeholders, capitalising on their role as one of the main implementers of the demonstration project in Thailand as well as their MBCP activities. They were also well placed to try to spread the idea of employing MB as necessary, rather than as a standard fumigation tool. They were some 30 fumigators involved with the Ministry of Agriculture acting to set the Standard of Fumigation.

REA has used the MBCP to generate awareness-raising tools. Drawing on UNEP's awareness-raising materials, REA developed numerous publications that were used to educate methyl bromide users in Thailand about the phase out and appropriate alternatives. REA produced Thai versions of UNEP's video "Methyl Bromide: Getting Ready for the Phase Out", as well as videos from UNIDO on methyl bromide alternatives for Integrated Commodity Management – 100 copies of each of these videos were produced. REA also produced Thai versions of several written materials on alternatives and developed many hand-outs in Thai, focusing on key issues including Frequently Asked Questions about Methyl Bromide, Methyl Bromide Alternatives for Grain Storage and Structures, Toxicity of Methyl Bromide and Phosphine and Best Practices for Phosphine.

On August 19, 2002, REA organized a seminar to increase awareness of methyl bromide and alternatives in Bangkok, which was attended by 74 participants. The major users of methyl bromide in Thailand participated in the workshop, including rice exporters, rice mill businesses, fumigation companies and surveyors, feed mill manufacturers and perishable and cut flower exporters. The three speakers featured at this workshop were an entomologist, an agricultural scientist from the Thai Ministry of Agriculture and Cooperatives, and a product representative from Cytec Inc. in Australia. The seminar provided an important opportunity for discussion and identifying effective alternatives for the major uses of methyl bromide in Thailand. Various alternatives were identified as being suitable for replacing methyl bromide, including Integrated Commodity Management, phosphine fumigation, hygiene management and chemical fogging. The seminar also identified uses for which there are no alternatives currently available in Thailand, such as the post-harvest fumigation of cut flowers.

REA also generated media coverage by highlighting the outcome of the awareness-raising activities, especially the workshop. These media activities resulted in coverage on TV (a story on 10 pm news on Television Channel 9), on the Midday News in Radio Thailand, and articles in *The Bangkok Business Post*, *The Matichon Newspaper*, and in the Feed Mill Business bi-monthly magazine

Although the final survey was still in progress at the time of the meeting, the REA representative felt that some future needs could be identified to aid MB phase out in Thailand. Demonstration projects and more information on chemical alternatives was identified as the most outstanding need. The presenter indicated that the final report on the Thailand MBCP would be ready by November 2002.

7.2.4.12 CARED (Nigeria) (presenter Professor Are Kolawale)

The MBCP of Nigeria officially started February 2002; therefore the presentation by the CARED representative was largely to describe CARED's plan of action and progress made to date in executing MBCP activities.

The first phase of the MBCP strategy is the research phase to seek out baseline consumption, which they will then follow with the Awareness-raising Stage, and finally close with what they termed their 'Post Intervention' phase, where the CARED team follow up on any other activities, carry out their final survey etc, as needed. At the time of the workshop they had only carried out the Research phase, where they executed their first survey, such that the Nigerian NOU was at the time going over the survey and background research report to fill in information gaps. The CARED team had been able to identify about 50 major users (mainly agricultural groups and distributors, as well as governmental organisations), as well those crops and commodities for which MB is used. As is the case for countries like Ethiopia, larger organizations and institutions, particular export associations, tend to carry out MB fumigations rather than farmers in their own right. In Nigeria, MB is used mainly for the storage of grains (cereals) and legumes. MB is also used in some pre-harvest processes for the soil fumigation of some vegetables, and generally controls against infestations by nematodes, soil borne insects, moths, beetles and weevils.

The first survey had been carried out, and CARED received responses from about 44 users. Apart from analysing these results, CARED was also in the process of beginning to identify potential participants for their first national workshop. This presenter has indicated that although official figures exist for MB consumption in Nigeria, there are some questions of accuracy. For example, UNDP reported that 3.4 tonnes were used in 1995, whilst others have indicated to CARED that it could have been as much as 40 tonnes for that year. He was not clear on why these high estimates exist, although it could be the result of a lack of distinction between QPS and non-QPS consumption by those analysing data.

Nevertheless, CARED's interviews under the MBCP have indicated a significant decline in MB consumption in Nigeria. Reasons proposed for this decline in MB consumption include the fact that Nigeria has experienced a decline in export and cash crop production since oil boom, as well as the fact that the World Bank has discouraged use of MB in supporting Nigeria's agricultural programme since the 1970s. However, there is a future potential for increase in MB usage: Taraba, one of the states of Nigeria which borders Cameroon, is embarking on commercial tea and banana production, and MB usage is already climbing. This is where CARED intends to focus attention for rest of the MBCP and already feel that demonstrations may be necessary to combat this development in this region.

Thus, based on this first Research Phase, CARED can confirm that the promotion of alternatives through public awareness is key, as well as the need to make alternatives available and economically feasible. They also feel that demonstrations will be necessary

in agricultural states. In addition, they have indicated the need for the set up of a licensing system for ODS, and training of Customs Officers to recognise MB and ODS in general. They have also identified the need for a form of regional cooperation to stop free movement of MB. All supplies in Taraba state come from Cameroon, and other neighbouring states, and have been able to get training from multinational groups and Cameroon and other neighbouring countries.

7.2.4.13 Global Village Cameroon(GVC) (presenter Johannes Takang Eyong)

As this NGO has only begun activity on the MBCP in Cameroon at the start of 2002, this presentation acted as a progress report of activities to date.

Methyl Bromide has been in use in Cameroon for about ten-fifteen years mostly for the QPS treatment of exported commodities such as cocoa, coffee, and maize. It is however also used in small quantities in soil fumigation and in tobacco seedling production and leaf fumigation. Cameroon was one of the first African countries to ratify the Copenhagen Amendment, and has since received Multilateral Fund assistance for a demonstration project entitled “Two alternatives to the use of Methyl Bromide: non-soil cultivation technique and application of various mixtures of other chemicals in low doses in tobacco”. At the time of the workshop, this project was ongoing, consisting of experimental field trials carried out by a company called SITABAC. However, it was realised that despite this project importation and use of MB in the country would not necessarily be impacted since this demonstration project lacked a stakeholder sensitization component. Therefore the approval of the MBCP for Cameroon at the 34th Meeting of the Executive Committee to the Multilateral Fund of the Montreal Protocol acted to fill this gap in education of stakeholders.

In giving an update on their progress to date with implementing the MBCP, GVC first translated the questionnaire designed for the project into French, since 80% of the country is French speaking. In order to identify the end-users of MB who would be targeted, GVC first had to identify the importers or wholesalers through the customs department and the phytosanitary services of the Ministry of Agriculture. At the time of the meeting, GVC was still in the process of collecting and analysing responses to their first survey; 34 responses had been collected.

The impact of this first exercise is that some of the end-users had finally become convinced that the phase out of MB in Cameroon has begun in earnest. GVC has found that although many have heard of phosphine as a possible alternative, their knowledge of this alternative as far as its practical application and efficacy is lacking and in need of demonstration. In addition, GVC has learned that:

- (1) There are two main importers of MB into the country, although is some illegal entry of MB into the country along the long borders between Cameroon and Nigeria.
- (2) The administration and collection of the questionnaire is not an easy exercise, because the private sector end-users do not see the immediate benefits to be gained in

the whole MBCP approach, and some misinterpret the exercise as a possible means of identifying them for taxing by the Government.

- (3) Most of the end-users know the effect of MB on the Ozone layer, but do not know that the phase out of MB is global and has progressed to the extent that it has to date.
- (4) Many of the end-users expressed the need for more information on alternatives to MB and training on how to apply these new alternatives.

GVC intended to return to collecting and analysing their first survey responses, and proceeding with the awareness raising activities of the MBCP after the Nairobi meeting.

7.2.5. Discussions to review the relative success of the MBCP approach

Countries were separated into two working groups to complete an analysis of the process of carrying out the MBCP. Countries were grouped as follows: Group 1 consisting of Cameroon, Dominican Republic, Ethiopia, Malawi, Philippines, and Senegal; while Group 2 consisted of Costa Rica, Chile, Kenya, Nigeria, Thailand, Zambia and Zimbabwe. The groups ultimately completed tables consisting of columns with headings including: 1. component activities expected in the project (namely the conducting of surveys, national workshop, farmer outreach/demonstrations, public awareness activities and materials, enhanced capacity of participating organisations); 2. level of success of the activities; 3. difficulties encountered in carrying out activities, and finally, 4. suggestions on ways to overcome barriers. For the sake of brevity, the results of the two working groups has been merged across the following pages.

NGO Communication Project: Country Evaluation Table

Activity	Level of success of activity ¹	Difficulties encountered ²	Suggestions for overcoming barriers
Conducting of surveys (first and second)	Rated 3 by both groups	<p>The survey is too long, and in some countries there was not enough time to conduct the survey properly. Time and funds become very limited especially if the farmers are located in different areas of the country (long distances between locations). Also users who are not part of large organizations are difficult to reach</p> <p>Some questions are difficult to answer, and the languages of the questionnaires are difficult to interpret by the farmers.</p> <p>Information required by the survey was often insider information that can only be obtained from certain</p>	<p>There is a need for more time and/or funds to carry out the surveys. Some countries feel that consultants would be needed to assist where transportation was especially difficult.</p> <p>Simplify the questionnaires and provide them in all UN languages; and/or provide a general criteria for the NGO to develop a national questionnaire that will satisfy the basic information needed.</p> <p>Start-up/sensitization workshops should be carried out before and during the</p>

Suggestion for work: let each country in a group first fill out the table, then let the group rapporteur summarize the group's data in one table representing the group as a whole. Suggested schedule for whole activity 1hour, such that the last half hour of this section of the meeting might be spent highlighting each group's findings in a Plenary setting.

¹ 1 = highly successful, 2= successful; 3= moderately successful; 4= not successful. Each working group summary table should list the rating of each component country.

² In summarizing, should the rapporteur find that there are common difficulties encountered by members of the group, he might briefly list the difficulty (eg. limited time for conducting survey), and then place in brackets those countries of the group who encountered the particular difficulty encountered.

Activity	Level of success of activity ¹	Difficulties encountered ²	Suggestions for overcoming barriers
		<p>officials. Some users did not want to respond as they were suspicious of the motives of the MBCP</p>	<p>survey, or there should be some form of national awareness programme before the survey, to encourage participation by users. Where possible organized groups should be used to contact individual users. In case of MB is used by a company, assure to access directors, not the technicians or employees.</p> <p>There must be a more timely processing and release of funds by UNEP throughout the project.</p>
National workshop(s)	Rated 2 by both groups.	<p>It is difficult to reach decision makers in companies to pass on information. In the case of farmers there is often too much information to pass on (limited time) with one or two workshops.</p> <p>Difficult to provide appropriate venue, time and money for the logistics and participation allowances (participants insist on compensation for distance travelled).</p>	<p>Increase the number of workshops for different regions and specifically target users and sectors, which will require more time and increased funding.</p> <p>Workshops are best</p>

Activity	Level of success of activity ¹	Difficulties encountered ²	Suggestions for overcoming barriers
		<p>Therefore the NGOs often had to partner with another organization to execute workshops.</p> <p>Workshop information not streamlined to target MB users and sectors (eg. distributors vs farmers), and is often only in English. There are not enough technical speakers available in some countries, particularly those who have not had demonstrations (eg. Malawi, Philippines).</p>	<p>incorporated into activities of larger more technical institutions in some countries.</p> <p>UNEP should look into generating more sector specific 'farmer-friendly materials. Also countries would like UNEP to provide and facilitate the attendance of technical resource persons for workshops if the country has none.</p>
Farmer Outreach/demonstrations	Rated 2 by both groups	<p>Some countries have had no demonstration activity, and had no budget for demonstrations and outreach for the mass media. In such countries there was no way to link demonstration activity with the MBCP.</p> <p>In countries where there were demonstrations, results were shown</p>	<p>Regional networking to share demonstration results for the MBCP is necessary, although one country proposed that UNEP and UNIDO should assist with training NGOs to carry out demonstrations themselves*, or see to it that the country receives demonstration projects to be carried out by any other agency.</p> <p>There was a need for understandable, user-friendly</p>

Activity	Level of success of activity ¹	Difficulties encountered ²	Suggestions for overcoming barriers
		<p>to technical persons within companies only, and not the general managers. In the case of farmers, there was limited success of showcasing the demonstration plots because of the long distances and logistical difficulties in arriving at the demonstration areas. This was especially difficult considering the need to take advantage of and ‘piggyback’ MBCP activities with existing agricultural activities and events.</p>	<p>descriptions of demonstration results. Leaders in districts should be encouraged to volunteer development of district demonstrations in different regions for increase the farmer participation, e.g. Zimbabwe situation. This results in information sharing and diminished travel distances.</p>
<p>Public awareness activities, generation of materials</p>	<p>Rated 2 by both groups.</p>	<p>Lack of interest in the awareness materials, especially where the information came in technical journals, because the kind of language is not friendly for farmers or non-technical persons.</p> <p>The cost of some materials, especially videos, is extremely high.</p>	<p>UNEP could assist in simplifying the language of some materials forwarded for use in the MBCP, with the review of materials by experts before dissemination to the local population.</p> <p>Increase funds for video, because this is an expensive but very useful extension tool. A separate budget line should be provided for this activity.</p>

Activity	Level of success of activity ¹	Difficulties encountered ²	Suggestions for overcoming barriers
		<p>The media is generally not interested in covering the MBCP and MB issues, and in some cases, the media wanted payment for their coverage.</p>	<p>Assistance from UNEP (in the form of direct press releases to media houses in countries) is KEY to raising the profile of the local NGOs in the eyes of the media and public. This must be formally incorporated in future project activities. Encourage the media to cooperate with the MBCP process, and try to identify key media persons to help forge links and assist in media exposure.</p>
<p>Enhanced Capacity of participating organizations**</p>	<p>Rated 3 by both groups</p>	<p>Different countries experienced different levels of enhancement at farmer, NGO, companies, government and research institutes. The scenarios are not the same (depends of the size of the country, kind of farmers, etc).</p> <p>Some countries expressed:- (1) a lack of capacity, skill and information as relates to specific</p>	<p>Countries requested a clear criteria and guidelines on how to assess the participation at the national level, and ‘enhancement of capacity’. Need clear guidelines to assess project implementation DURING the project.</p> <p>Some NGOs requested that UNEP organize training or an attachment to an expert</p>

Activity	Level of success of activity ¹	Difficulties encountered ²	Suggestions for overcoming barriers
		solutions/alternatives to MB at the local level; (2) lack of a formal, established communication network with local and international NGOs.	organization/institution that is expert in specific alternative techniques, information management, design of public awareness campaigns etc. They also wish an initiative to improve connectivity between NGOs.

***NGOs request for direct involvement in Demonstration Activities:**

With respect to the discussion of obtaining direct funding for demonstrations, it was explained that an NGO without previous technical experience in the field of applying agricultural techniques, would not likely receive direct funding for demonstrations. It was suggested that the Farmers' Field Studies approach be used where there are no demonstrations, where UNEP assists (working with UNIDO, FAO or any MLF recognised Implementing Agency, local agricultural expert or institution) to train pilot farmers, who can then train other farmers, spreading the knowledge, as occurred in Kenya, where farmers from Oseiran farms in Navaisha trained other farmers on alternatives.

****Issue of Enhanced Capacity:**

Group 1 and Group 2 both feel they have benefited from this project. They have increases in knowledge of national scenarios and also had an increase in the number of contacts. BUT they wished to emphasise that there is a need for TRAINING of the NGO on alternatives to MB in the various scenarios of use, so that the NGO can effectively answer technical questions put to them by farmers and users.

In addition to the difficulties which could be fit neatly into the categories provided in the worktables, countries described other difficulties encountered. Several countries indicated that UNEP should first discuss with countries the best route for documents to be sent to countries, since UNEP documents did not reach certain countries on time to educate them sufficiently before the project. (eg via post versus another UN office).

Countries however also expressed their pleasure at having been a part of the MBCP process, as some NGOs have experienced favourable recognition by the NOU since carrying out the MBCP. The NGO for Chile has even been approached by the NOU and other leading organisations to play a future and continued role in MB phase out. Projects have also created expectations in countries that there will be future investment and demonstration projects. This in turn has motivated stakeholders to cooperate with relevant organisations to make this a reality. In Ethiopia, for example, the MBCP and NGO activity has helped raise country awareness on the importance of MB issues, and has led to the formation of a permanent public-private sector body to oversee national phase out.

7.2.6. Discussion on a potential NGO Methyl Bromide Communications Network.

During this section of the workshop, participants discussed potential forms of future support that might be needed by the NGOs, if they wished to continue awareness raising activities for the phase out of methyl bromide. Since there was considerable support for better communication between NGOs, so that there could be better sharing of experiences, mutual enhancement of expertise and the like, discussions focussed on the *Potential Strategies for the Setting up of an NGO MB Communications Network*. The participants listed the possible parameters and characteristics of a potential Network.

Mission of Network:

To promote and enhance information exchange to build on a long-term supportive network on the MB issues.

Objectives of Potential Network

1. Share the experience and relevant information on MB issues which are pertinent to the NGOs work in raising awareness on MB phase out, and on regional and/or local demonstration projects.
2. To synergize efforts aimed at phasing out MB at the *national* and global level.
3. To provide the linkages and pertinent information for the preparation of fully consultative country projects aimed at phasing out MB in a co-ordinated and informed manner.
4. To provide a direct linkage to NOUs, other experts, expert networks or organisations, who might directly participate in MBCP activities that will culminate into lateral transfer of alternative technologies which might replace MB use.

5. Place the NGO in contact with experts, and other NGOs, who might answer SPECIFIC technical questions related to the implementation of the MBCP, or any such future approach.

Who will Host/Manage the Network on a global/regional scale?

The first step proposed to the group was using the Compliance Assistance Programme of UNEP, where the regions will each gain a central MB officer. This officer might act as the coordinating centre of a potential regional network; and the officers of each geographical region might facilitate communications BETWEEN regional networks. Therefore the potential would now exist for the CAP MB officer to act to coordinate the relevant NGO, NOU and any other implementing agencies or relevant organisations to generate comprehensive phase out country projects, with fully informed technical and awareness-raising components.

The group was concerned on the “abstract nature” of proposals to date, and wished the workshop report to reflect the earnestness with which they wish to see the Network become a concrete reality. As such, they welcome the earliest opportunity to participate in discussions on the potential structure of a formalised network.

Who will be a part of the Potential Network?

CAP MB officers, NGOs, NOUs, other relevant experts, research institutes and stakeholders (eg. pest control/phytosanitary and regulatory agencies, private companies involved in MB use etc.)

Do you see this Network as Temporary or Long term (ie at least until the 2015 phase out for Article 5 countries)?

Given that QPS is currently exempt from control, as well as the ongoing debate on critical use exemptions within the Montreal Protocol, the group felt that there is a need for a LONGTERM supportive network.

The text generated from these discussions was agreed on by all present during the meeting, as the NGOs felt very strongly about the need for this proposal to be acted on and made a reality. The group was also informed about the intention of UNEP to seek support for NGOs, within the context of enhancing UNEP’s collaboration with Civil Society in the global implementation of programmes.

Bilateral discussions were then held outside of formal sessions, with those countries who were still in the process of carrying out their MBCPs. Thereafter, there was a final discussion of the conclusions of the workshop; and, after some closing words from the Director of ROA, Mr. Sékou Touré, the workshop was formally closed.

8.0 Conclusions and Recommendations

1. Participants expressed the desire for continuation of the MBCP process. Those who had completed the programme, requested further support, both financial and technical to continue in the area of raising awareness on MB phase out in their countries. They felt that future project design should be informed by the results of the project analysis conducted in the working groups of this meeting.
2. On the point of future support, the NGOs wished to emphasise that there is a need for training on alternatives to MB in the various scenarios of use. They deemed this necessary so that they can effectively answer technical questions put to them by farmers and users, and so better act as agents of MB phase out under any future MB projects.
3. The group was concerned about the “abstract nature” of various proposals to date, and wished the workshop report to reflect the earnestness with which they wish to see an NGO MB Communications Network become a concrete reality. As such, they welcome the earliest opportunity to participate in discussions on the potential structure of a formalised network.

9.0 ANNEXES

9.1 Annex I – List of Participants

Second NGO Consultative Meeting on UNEP's Methyl Bromide Communication Programme, 16-18 September, 2002.

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9.2 Annex II- Agenda

Agenda

**Second NGO Consultative Meeting on UNEP's
Methyl Bromide Communication Programme**

**Organised by:
UNEP DTIE OzonAction Programme**

**In Cooperation with:
National Environmental Management Authority of Kenya (NEMA)**

16-18 September, 2002

Nairobi, Kenya

MONDAY, 16 SEPTEMBER, 2002

Field Trip to Navaisha to participate in World Ozone Day celebrations. Details in progress.

- Ozone Day Celebration
- Examples of Kenyan NGO's work
- Visit to Farmer's Field School

TUESDAY, 17th SEPTEMBER, 2002

- 10:00-10:15 Opening of the Meeting and Introductory Remarks
Ambassador Professor Michael K. Koech, Director General of the National Environmental Management Agency (NEMA) of Kenya on behalf of the Hon. Mr. Isaac Rutto, Minister of Environment of Kenya
- 10:15-10:25 Welcome to UNEP and the importance of NGOs in ozone protection
Mr. Sékou Touré, ROA Director
- 10:25-10:35 Progress made on Our Joint Strategy: OzonAction and NGOs, Objectives, structure and agenda of the workshop
Christine Wellington, UNEP DTIE
- 10:35-10:50 **Coffee**
- 10:50-11:10 UNEP's Methyl Bromide Communication Programme: An overview of progress to date and highlights of the evaluative Synthesis Report.
Christine Wellington, UNEP DTIE
- 11:10-11:30 Results of Demonstration Projects on Methyl Bromide Alternatives in Africa
David Okioga, UNEP Consultant
- 11:30-12:30 Questions and Discussion.

12:30- 14:00 **Lunch**

14:00- 16.00 Part 1 of Presentations from NGOs on the Status of their National Communication Programmes

Each NGO representative will give a presentation (15 minutes maximum), including: (i) their strategy for implementing the communication programme; (ii) what was achieved; (iii) any visible and lasting impacts of the project in their countries; (iv) a general statement of whether expected outputs were met, and of difficulties encountered.

- *Miguel Stutzin, Comite Nacional Pro Defensa de la Fauna y Flora, Chile*
- *Samuel Ochieng, Consumer Information Network, Kenya*
- *Emmanuel Kamangira, Coordination Unit for the Rehabilitation of the Environment, Malawi*
- *Lovemore Simwanda, Environmental Conservation Association of Zambia*
- *Fantahun Assefa, Environmental Development Action-Ethiopia*
- *Andrea Brechelt, Fundación Agricultura y Medio Ambiente, Dominican Republic*
- *Fabio Chaverri, Instituto Regional de Estudios en Sustancias Tóxicas, Costa Rica*
- *Sampaguita Quijano, Pesticide Action Network Philippines*

16:00-16:15 **Coffee**

16.15-17.30 Part 2 of country presentations

- *Gareth Thomas, Tobacco Research Board, Zimbabwe*
- *Henry René Diouf, PAN Africa, Senegal*
- *Chamlong Lapasatukul, Rice Exporters Association (REA), Thailand*
- *Professor Are Kolawole, CARED, Nigeria*
- *Johannes Takang Eyong, Global Village Cameroon*

17.30 Return to Hotel

WEDNESDAY, 18th SEPTEMBER, 2002

09:00-09:15 Overview of format for discussions to review the level of achievement of outputs by countries in implementing the communication programmes, barriers encountered, and suggestions for overcoming these barriers in future project design.

09:15-10 :45 Working group discussions to analyze the relative success and difficulties encountered in carrying out activities under the MBCP.

10:45-11 :05 **Coffee**

11:05-11:35 Further discussions to receive suggestions on ways to make project activities sustainable for NGOs after the official close of the project.

11:35- 12:05 Completion of group discussions and finalizing of text.

12:05-13:30 **Lunch**

13:30-14:30 Discussion on potential Strategies for the setting up of a NGO Methyl Bromide Communications Network.

OzonAction Programme

Report of the 2nd Consultative Meeting of NGOS under the Methyl Bromide Communications Programme
Nairobi, Kenya, September 16-18, 2002.

- 14:30-15:30 Bilateral discussions with countries with incomplete projects (namely: Malawi, Thailand, Senegal, Cameroon, Nigeria), to update on project status if further details are needed, and set out timelines for major tasks which remain and how they will be carried out.
- 15:30-16:00 **Coffee Break (this will be a working break for those countries who may still be awaiting their bilateral discussions)**
- 16:00 - 16:20 Close of Meeting
UNEP DTIE