

Minutes of the meeting of
National Agroforestry Working Group (NAWG)
held on 19 June 2004

A meeting of NAWG was held on 19 June 2004 at the Bangladesh Agricultural Research Council (BARC). The Member Director (Natural Resources), BARC chaired the meeting in the capacity of convenor. Representatives from 12 organizations (18 members) participated in the meeting (list of participants is annexed). These include BARC, Bangladesh Forest Research Institute (BFRI), Bangladesh Agricultural Research Institute (BARI), Soil Resources Development Institute (SRDI), Bangladesh Tea Research Institute (BTRI), Institute of Forestry and Environmental Sciences (IFESCU), Botany Departments of Chittagong University and Jahangir Nagar University, Forestry Department of Shajalal University, Agroforestry Department of Bangladesh Agricultural University, Intercooperation (IC) and Proshika. Though representative of DAE could not manage to participate the meeting due to some preoccupation, the information on the agroforestry activities of DAE was sent to the convenor of the NAWG in time.

The chairman welcomed the participants and requested the participants for self-introduction. Then he shared the agenda of the meeting with the participants which include stocktaking of agroforestry activities of each participating institute and identify support needs for on-going activities. The chairman invited the organisations for presenting their current activities including limitations. Each participating organisation presented their activities which are summarised below:

1. Bangladesh Forest Research Institute (BFRI)

BFRI is involved in research on agroforestry since 1980. Some of the important studies are agroforestry on government forest land and marginal land, Betagi-Pamora Community Forestry Project, Rubber based agroforestry systems and Farming system Research and Development in hilly areas. At present BFRI is conducting studies to develop sustainable agroforestry system for the hilly areas particularly Bandarbands. Some of the major achievements in agroforestry research by BFRI include development of Sloping Agroforestry Land Technology (SALT), Differentiated Slope Agroforestry (DSA) and Natural Vegetative Buffer Strip (NVBS).

BFRI does not have any permanent set up for agroforestry research. Scientists from different disciplines are involved in agroforestry programme. There is scarcity of both trained manpower and fund. Thus capacity building of staff and sustain flow of fund are essential for improving agroforestry research at BFRI.

In response to the question of replicability and scaling up of Betagi-Pamora model as well as SALT, DSA and NVBS, BFRI representative said that due to shortage of fund and manpower, the technologies could not be disseminated. But the role of BFRI was questioned through a follow-up question - which states that the role of BFRI is to generate technology? Unless extension agencies are involved in design stage, dissemination of technology will not take place smoothly. The chairman requested BFRI representative to work in close collaboration with Chittagong Hill Tracts Development Board and SRDI in Bandarbands to ensure wider dissemination of technologies.

In a study on Betagi-Pamora Community forestry, it was found that the soil of the area lacks adequate mycorrhiza which challenge the effectiveness of the system. It was argued that the land

was devoid of any trees only 20 years back. Soil formation is in progress and it would take time to have good soil micro-flora and fauna but there is strong economic activity in the area once the land title was transferred to the participants.

The Chairman informed that BARC is reviewing the mandates of NARS institutes and the need for an agroforestry research discipline should be taken up during mandate review.

2. On-Farm Research Division (OFRD) of Bangladesh Agricultural Research Institute (BARI)

OFRD of BARI identified some technologies suitable for small farmers. These include cultivation of black pepper and betel leaf at homestead in association with trees, integrating trees in the crop field for improved production and soil fertility improvement, direct seeding, cultivating creeper vegetables in homestead and cultivation of aroids under akashmoni (*Acacia auricaliformis*). There are many other studies being carried out by the BARI-OFRD. Trained manpower and funds are identified as major constraints.

3. Bangladesh Tea Research Institute (BTRI)

BTRI stated that there are 114,000 ha of land under tea estate. Tea requires shades which is provided through shade trees such as *Albizia spp.* This makes the tea garden as a good agroforestry plantation. However, there is no definite study in Bangladesh on the influence of shade tree species on the quality and quantity of tea leave production. Of the total land areas under tea estate almost 50% land is vacant. Government is trying to identify the vacant land suitable for the herbal plantation and forestry activities. The authority had already identified 26,000 ha for forestry and few hectares for herbal plantation. Since last two years, BTRI has been producing seedlings of different medicinal plants in their nurseries in order to make planting materials available to the planters and establish herbal garden by the tea estate owners. However, there are some private nurseries around the tea estates and these nurseries are also raising medicinal plantlets. The cultivation of medicinal plants along with other tree species in the vacant land of the tea estates is increasing. BTRI would be involved in developing appropriate tree crop combination for such fallow land. BTRI has shortage of trained manpower and fund.

4. Institute of Forestry and Environmental Sciences, Chittagong University (IFESCU)

The IFESCU has agroforestry curricula both in B.Sc. (Hons) and M.Sc. in Forestry. The students conduct studies under the supervision of faculties during their thesis work. Moreover, the faculty members collaborate with different organisations (FD, BFRI, CHTDB) including NGOs in implementing collaborative studies on agroforestry. IFESCU documented an annotated electronic bibliography of agroforestry in collaboration with one NGO through financial assistance of BARC. Some M.Sc. students are being sponsored for their thesis work by Intercooperation to conduct studies on agroforestry particularly suitable for small farmers of northern Bangladesh.

There are adequate trained manpower but dearth of fund. The IFESCU is interested to work in collaboration with other NARS organisations.

5. Soil Resources Development Institute (SRDI)

SRDI is working on soil conservation aspect in Chittagong Hill Tracts. The studies include performance of different cover crops under the tree species and managing soils with different engineering devices. SRDI has good facilities at Bandarabans. Though there was scope to work in collaboration with BFRI, coordination was lacking. The Chairman suggested BFRI and SRDI to collaborate each other and develop joint programme.

6. Botany Department, Chittagong University

Botany Department of Chittagong University is involved in studies on various aspects of agroforestry including mycorrhiza of different soils of Bangladesh. The department studied soils under different agroecological zones and tree species composition. BARC financed Botany Department to study the mycorrhizal population in different forests of Chittagong. The faculty members of Botany Department of CU has developed a composition of mycorrhiza suitable for plant growth which is commonly called bio-organic. This has been found suitable for different vegetables. Moreover, a compendium of mycorrhiza is under preparation and upon receiving of financial assistance, it will be published.

The department has manpower but due to shortage of fund, important studies could not be undertaken. The department is working in collaboration with IFESCU but willing to collaborate with BFRI in undertaking research on mycorrhiza.

7. Jahangir Nagar University (JU)

The university has 740 acres of land, of which 60% is under tree plantation jointly established with Proshika. The plantation can be used for study of silviculture and agroforestry. There is a block of 500 agar trees. Organisations willing to collect planting materials of agar may contact JU. FD has also collaborated with JU in establishing blocks of medicinal plants last year. JU has manpower to conduct research on agroforestry but there is serious shortage of funds.

8. Shahjalal University of Science and Technology (SUST)

The forestry department of SUST offers B.Sc. (Hons.) course in forestry where agroforestry is incorporated in their curricula. Though few, there are faculty members who are trained in agroforestry. They are involved in agroforestry researches such as study of betel leaf cultivation under trees by Khasia tribe. There is a serious fund constraint in the department. Even the students could not be exposed to field of agroforestry due to shortage of fund.

9. Agroforestry Department of BAU

The department is new but taken initiatives to build up the capacities of the faculty members. The department has MS programme. The students are financed by different organisations including Intercooperation. In the last two years, the department produced 37 theses which were studied on different components of agroforestry such as production, tree crop interaction, homestead agroforestry and socio-economic impact. As the department is new, there is a need for capacity

building of the faculty members as well as financial support for conducting researches by the students.

10. Proshika

Proshika is involved in the nursery programme and other agroforestry activities. The organisation is working in collaboration with DAE and BARI-Horticultural Centres to improve the access of planting materials to the farmers. Proshika has established block plantation of different species at JU campus which contributed to the biodiversity conservation.

11. Intercooperation

Intercooperation is a Swiss Organisation for Development and Cooperation, registered in Bangladesh as International NGO. The organisation is mandated by SDC to manage its Sustainable Land Use Programme in Bangladesh. There are two agroforestry projects under Intercooperation – The Livelihood, Empowerment and Agroforestry (LEAF) Project and Strengthening Access to Agroforestry Knowledge, Technology and Information (SAAKTI) Project. The LEAF is a field based project working in Rajshahi Division through partnership with 11 local NGOs. The project aims at improvement of livelihoods of small farmers through improving management of their homestead and land resources, and diversifying income through production, processing and marketing. It also envisages to contribute in empowering farmers so that they can identify their development priorities, undertake joint actions, mobilise resources and services, defend their interest and rights, and participate in local decision-making processes. The project adopted group and cluster approach to reach to the farming community.

SAAKTI is an agroforestry knowledge management project working in collaboration with national organisations and development projects. The objective of the project is to support improve knowledge management system in agroforestry so that the access of small farmers to knowledge on appropriate and up-to-date agroforestry production techniques/systems, particularly in northern Bangladesh is improved. Thus the project would collaborate both with knowledge generators and users, so that the knowledge generators become more responsive to the needs of small farmers through communicating the useful research results effectively to the development and extension agencies.

IC is developing another project to strengthen supply chain of germplasm (fruit and timber tree species including economic plants) from the repositories to the farmers. IC has already established a Memorandum of Understanding with BARI and BFRI in this regard. The project envisages the development of a long term and medium term strategy for identification, development and distribution of germplasms from the source of origin to the farmers throughout the Bangladesh.

12. BARC

BARC is the coordinating body of agricultural research. BARC has funds for supporting research in agroforestry. There are other organisations who are also willing to contribute in research fund for knowledge generation. BARC invited all organisations to develop project proposals which need supplementary fund. BARC will evaluate the proposal and if found suitable, necessary allocation would be provided. However, BARC can channel the fund only to NARS institutes. If organisations like universities work in collaboration with NARS institutes, fund could be

provided. The NAWG is a platform to steer agroforestry activities. It coordinates the agroforestry activities of different organisations. It is necessary to identify priority areas of agroforestry and develop an agroforestry plan. BARC would be able to contribute in capacity building through providing Ph.D. scholarship to scientists working in different NARS institutes. Thus universities may be benefited through such collaboration. In addition, there are additional financial resources for capacity building from IC. The fund is likely to be routed through NAWG. So, it is necessary to have a good stocktaking of the on-going researches as well as future research needs. Each organisation was requested to send their proposal within 2 weeks of the meeting. Based on the information, a document would be prepared and circulated to all members.

Decisions:

1. Some of the organisations did not submit their written information on agroforestry activities. For proper documentation and sharing with other organisations, those organisations are requested to send their written information on activities within 10 days.
2. The NARS organisations are requested to develop project proposals for supplementary fund as per BARC format.
3. The universities are also requested to collaborate with NARS institutes for supplementary fund.
4. Integrated research programme/s would be cost effective as well as need oriented. BFRI working in Chittagong Hill Tracts should collaborate with relevant organisations such as SRDI, CHTDB and DAE for designing the research programme and extension of the activities. Similarly, other organisations should also take integrated approach for developing and implementation of agroforestry research programme.

A handwritten signature in black ink, appearing to read 'Dr. Moslem Uddin Mia', is written over a faint, circular stamp or watermark.

Dr. Moslem Uddin Mia
Member Director (NR) and
Convenor, NAWG