

LOW COST HOUSING TECHNOLOGY PROGRAMME

This was the first collaborative project to be implemented by the Centre with partial funding from Perez Gurrero Trust Fund (PGTF) for the member countries of the Group of 77 (G-77). 12 countries spread over Asia, Africa and Latin America, viz. Bangladesh, Burkina Faso, Colombia, Ethiopia, India, Lebanon, Malaysia, Nepal, Pakistan, Sri Lanka, Tanzania and Togo, participated in this project. Following the approval of the project by PGTF/G-77, the Governing Council of the NAM S&T Centre approved Dr. Padamsiri Perera of Sri Lanka, Mr. E.M. Kwanama of Tanzania and Mrs. Maria Clara Echeverria Ramirez of Colombia as the respective regional coordinators from the Asian, African and Latin American regions.

The first meeting of the project Apex Group was held at the Centre's premises in New Delhi during 24-27 August 1998 to work out the plan of action and to develop collaborative R&D projects of common interest to members of the Centre. Besides the Project Consultant Prof. Dr. D.N. Trikha from Malaysia, the regional coordinators from Asia Mr. Padmasiri Perera (Sri Lanka) and from Africa Mr. E.M. Kwanama (Tanzania) attended this meeting. The Regional Coordinator for the Latin American Region Mrs. Maria Clara Echeverria Ramirez (Columbia) did not respond despite Colombian Ambassador's intervention. Mr. Akhtar Uddin Ahmed of Bangladesh attended as a special invitee from the Asian region for discussing the Asian regional report. This meeting finalized the work plan and laid down format for regional low cost housing scheme keeping in view the country status reports received from participating countries of the region.

Prof. V.S. Ramamurthy, Secretary, Department of Science & Technology, Government of India and Vice-President of the Governing Council of the Centre inaugurated the project meeting. In his inaugural remarks, he stressed the importance of the project for developing countries, as adequate housing for the masses was one of the urgent requirements of all the developing countries. Due to lack of resources, this could be provided only if low cost housing technology could be worked out and popularized for adoption in developing countries. He was happy to note that as many as 12 countries of the Centre are participating in this collaborative project and hoped that the NAM models of low cost housing will prove to be practical, cost effective and popular.

Earlier, the Director of the NAM S&T Centre gave the background on the development of the project and the progress of the project leading to the Apex Group meeting in which the Regional Coordinators of the three regions, namely Asia, Africa and Latin America, were meeting to work out regional scheme / feasibility report for each region. He hoped that the Regional Low Cost Housing Scheme will give due consideration to regional differences in climate, culture and availability of local material and will keep in view the local skills available and the cost economics. Prof. D.N. Trikha, Project Consultant and Executive Director of the Housing Research Centre / Selangor Chair Professor at the Department of Civil Engineering, University of Malaysia expressed his happiness that although the project was delayed in its take off due to late response of the basic background information from participating countries, it had reached a crucial stage when a regional plan for adoption by each region could be worked out. Although low cost was important, the durability of the structure was also of crucial importance otherwise it might lead to low quality, low cost housing. It should also provide adequate privacy, thermal comfort in the tropical area and enough room for expansion as the family grows. H.E. Dr. (Ms.) Gloria Isabel Nieto de Nino, Ambassador of Colombia, Dr. R.K. Bhandari of Indian Council of Scientific and Industrial Research (CSIR) and former Head of the Central Building Research Institute (CBRI), Roorkee and Dr. A.P. Kulshreshtha, Advisor in the Indian Ministry of Science and Technology also participated in the inaugural function. H.E. Dr Gloria Isabel stressed the importance of

education and popularization of improved low-cost housing for adoption by the masses, Dr. Bhandari emphasized that the lessons learnt from some of the success stories in each region should be made use of in the new schemes to be worked out.

The Technical Session, which followed the Inaugural Session, included the statements by the Director of the Centre and the Project Consultant laying down the essential requirement for each of the regional schemes for low-cost housing. The two Regional coordinators from Africa and Asia then presented the Regional Status Reports for their regions. This was followed by a session on strategy for preparing the regional low-cost housing schemes. Prof. Trikha indicated the framework under which the regional scheme could be formulated for each region. A uniform format to be used for preparing the regional low cost housing scheme was discussed and finalized for use by the Regional Coordinators for preparing the low cost housing scheme (for both the rural and urban models) for each region. A time frame was also laid down for preparation of the Regional Low Cost Housing Scheme. The last session was devoted to discuss and identify areas of research and development for the low cost housing. In order to be considered by the Centre, 2 research and 5 development projects were identified along with the lead country for developing the proposal in detail.

The second meeting of the Apex Group was held in the Centre's premises during November 1-2, 1999. Prof. D.N. Trikha, Project Consultant from Malaysia, Mr. E.M. Kwanama, Regional Coordinator for Africa from Tanzania and Ms. Dang Anum bt. Mohd. Zin, Principal Assistant Director (R&D Division), National Housing Department, Ministry of Housing and Local Government, Kuala Lumpur from Malaysia, acting for the Regional Coordinator for Asia Mr. Padmasiri Perera, who was not well, attended this meeting. No response was received from the Colombian Regional Coordinator.

The Apex Group considered the regional low cost housing schemes for the Asian and African regions prepared by the respective regional coordinators in terms of the guidelines and decisions taken at the first Apex Group meeting held in August 1998. The meeting finalized the regional schemes but desired that specific details and dimensional drawings of the various models and types recommended for rural and urban housing should also be included in a format which will act as Builders' Handbook. It was felt that such Handbook, after it is printed and distributed widely, would be highly valuable for the public and private sector agencies in member countries. The Handbook will also include details of structures, materials used, instructions for making structural elements etc., details of structures for water harvesting, application with details of ferro-cement elements, utilization of fly ash and a chapter on upgradation of traditional technologies.

There was considerable delay thereafter due to the sad demise of the Asian regional coordinator Mr. M. Padmasiri Perera of Sri Lanka. The Government of Sri Lanka appointed Mr. M.W. Dayananda in his place. The regional schemes revised accordingly in the form of Low Cost Housing 'Builders Handbook' were received from the regional coordinators for Asian and African regions and examined by the Project Consultant, who made suggestions for further improvement, including additional information. The revised version was received after considerable delay due to serious illness and by-pass surgery of the new Asian regional coordinator from Sri Lanka, Mr. Dayananda. There were some deficiencies in the revised versions, which were rectified at the Centre with the help of the local Consultant in India, Mr. P.C. Sharma of the Structural Engineering Research Centre, Ghaziabad.

The above shortcomings were thoroughly gone through and considered at the third and the final meeting of the Apex Group held in Malaysia during July 16-17, 2002 in the

National Housing Department of the Ministry of Housing and Local Government, Government of Malaysia, Kuala Lumpur, which was formally inaugurated by Mr. Yeo Boon Hong, Dy. Director General 1 of the National Housing Department of Malaysia. The participants in the meeting included Prof. D.N. Trikha (Project Consultant), Mr. E. M. Kwanama (Regional Coordinator for Africa), Ms. Dang Anom Bt. Md. Zin (Acting Asian Regional Coordinator), Dr. A. P. Kulshreshtha (Director of the NAM S&T Centre), Mr. K.N. Johry (Senior Advisor of the Centre) and Mr. P. C. Sharma (Local Project Consultant from India). During this meeting the ready-to-print version of the drafts of the Builders' Handbooks for Asian and African regions respectively alongwith fresh set of drawings were considered and finalized. The meeting also considered the guidelines and contents for the programme of training of trainers for the two regions which the Centre may consider to organize for interested participating countries after the Builders' Handbooks have been released and circulated. It was decided to organize training of trainers programme to be carried out by the Regional Coordinators for the participating countries of their regions. The instructions would be given mainly by the Regional Coordinators themselves and their team members with an additional faculty from outside, if necessary. The training would be based more on demonstration and hands-on training rather than lectures, which will be kept to a minimum. Each regional coordinator will prepare a package of training which will include familiarization with low cost housing programme and Builders' Handbook, write up on training at two levels, one for the lecture session and the other for the demonstration sessions. The participants in the training programme will generally be middle level Executive Engineers.

The project on Low Cost Housing Technology has been successfully completed. It resulted in the publication of two Builder's Handbooks on Low Cost Housing, respectively for the Asian and African Regions, which have been published and released during the 1st Bureau meeting of the 10th Governing Council held in the premises of the NAM S&T Centre, New Delhi during December 2003.

The Centre will consider and support any proposal received from participating countries arising out of the project.