

STATE COUNCIL OF SCIENCE TECHNOLOGY & ENVIRONMENT (SCSTE),

MEGHALAYA

ANNUAL ACTIVITIES REPORT 2016-2017

- A. ORGANIZATIONAL SET UP:** Constituted by the Govt. of Meghalaya on the 30th January 1995 and registered under Meghalaya Societies Registration Act 1983.
- B. MISSION:** To ensure effective utilization of Science and Technology for all round development of the state.
- C. FUNCTION:** To identify, formulate, execute/coordinate and follow up programmes/schemes for the state of various aspects of science and technology.
- D. MAJOR PROGRAMMES:**

1. POPULARISATION OF SCIENCE PROGRAMME

1.2 OBJECTIVE: To inculcate scientific temper among the public, particularly school children and ultimately to generate scientific minded and environmentally conscious citizens of the state.

1.3 ACTIVITIES:

1.3.1. WORLD EARTH DAY CELEBRATION-2016:

The day was observed on 22nd April, 2016 where science activities like quiz, extempore speech and model exhibitions, debate, essays and painting were organised under the theme "Trees for the Earth" science lectures were also being incorporated in the programme so as to inculcate the scientific temper right at the grass root, especially village school students. School students were also taken for exposure visit to scientific line deptts. like Geological survey of India (GSI), Directorate of Mineral Resources and to Ever-living Museum, Shillong where lectures were conducted on the origin of Earth and the various conservation practices of habitat of mother earth and the surrounding environment. School students were also taken to watch and observe the different types of geological exhibit and interactive interestingly with the resource person, or essay competition on the topic 'Saving Mother Earth' was also organized through open advertisements in newspapers.



1.3.2. 24TH NATIONAL CHILDREN SCIENCE CONGRESS-2016:

As had been done in the previous year National Children Science Congress (NCSC) was also being organized by SCSTE under the scheme 'Science and technology for sustainable development'. The Program was organized in 4 (four) phases.

1. The State Level master Resource Persons Training
2. Awareness camps covering all the districts of the State
3. The District- level NCSC conducted in each district of the state where best projects were selected for presentation in the state-level
4. The State-Level NCSC was conducted during the 2nd November 2016 at Shillong. Eight(8) best projects were selected for presentation at the National-level held at Baramati, Maharashtra during the 27th -31st December 2016

Notable Projects Presented were:

1. Comparative study on the use of bait traps to increase the production of temperate fruits.
2. Sustainability of the energy self reliance of Nongbah Village.
3. Storm Predicting devices.



1.3.3. NATIONAL TECHNOLOGY DAY-2016:

National Technology Day was observed on the 11th May, 2016 with programmes on the awareness of technology applications especially those affecting daily life of the people, under the theme 'Technology Enablers of Startup India'. The programme was organised at Block level for villagers and school students as well. Exposure visits were also organised for school students to scientific organisations like ICAR & NESAC. The programme was flagged off by the Manager, BSNL, Govt. of India after a brief function held at the State Central Library, Shillong. During the exposure programme students interacted with scientist from ICAR & NESAC and learn about the different landmarks in the field of technology which the country had achieved and how these achievements have benefitted human society.



1.3.4. FELICITATION OF MERITORIOUS STUDENTS IN SCIENCE FOR SSLC EXAMINATION OF MBOSE- 2016

SCSTE Meghalaya annually conferred the award for students who secured highest marks in Science subject in SSCL Examination of Meghalaya Board of School Education, this inspires students to take up Science in pursue of their further studies, it also encourages other fellows students the spirit to work hard. The programme also recognizes the student's effort in science subject. During the year 2016, 12 meritorious students were conferred cash awards, students belong to different schools of the state received the award at a Felicitation Function.



1.3.5. WORLD ENVIRONMENT DAY-2016:

World Environment Day was observed in a grand manner during the 7th – 10th July 2016 with good participation by students from the different C & RD blocks of the State. The Programme started with the launching of School-Reporters-Citizen chapter, Launching of Meghalaya Innovation Scouts and a Workshop on Earthian Programme. World Environment Day culminates different activities like nature walk and taking of photographs based on the observations of the students during the walk, best photos were displayed with the explanations about them by the students. Shri. Rohit Suri was the Resource person who also explained on the function of a camera and its various parts to the students. A session on Innovation and documentation of grassroot innovations and traditional knowledge was also included. Shri. Nitin Maurya, scientist from NIF-India gave an insight on Innovation and scouting of Innovations. A community dialogue was also held at Mawkaphan Village, East Khasi Hills, on 'Grassroot Innovation on Ecology and Natural Resources Management in the State'. A workshop on Earthian Programme and Season Watch was also organised as part of the celebration with Ashish Shah and expert from WIPRO as the resource person.

About 500 students participated in the celebration, certificates for participation were distributed at a closing function. Best Eco-clubs from the different blocks and districts were also felicitated with cash awards and certificates.



1.3.6. SENSITIZATION PROGRAMME ON SCIENTIFIC UNDERSTANDING OF POSTHUMOUS BODY AND ORGAN DONATION:

SCSTE, Meghalaya in collaboration with Ganadarpan, Kolkata a voluntary agency who motivates donation of organs after death for promotion of medical sciences, organized a one day workshop on 28-10-2016 at Shillong. The programme was catalyzed and supported by NCSTC, Dept of Science & Technology, Govt of India. Resource persons during the programme were Shri. Brojo Roy and Dr. Prabuddha Ghose, the resource persons gave an insight on posthumous body, organs and tissue donations after death, and live blood donation when still alive, it was also emphasized that the society needs to avail these opportunities of modern medical sciences, that not only blood can save lives, but also organs and tissues of a deceased by which this has not been yet become aware by most of the people in the society. The programme was attended by 65 participants which include medical and health officers, medical specialists, paramedics, research scholars and members of different organizations.



1.3.7. SEASON WATCH PROGRAMME:

SCSTE, Meghalaya initiates the Season Watch Programme in the State; this is a citizen science project that monitors flowering, fruiting and leafing patterns of the plant species in India. The project provides information on phenological changes in true species and to understand the responses of trees to climate change, through data collection by systematically observe and record the life-cycle events in the life of trees. SWP in the state is being collaborated with National Center for Biological Science, New Delhi and WIPRO.

Meghalaya is no exception in the change in annual temperature and rainfall patterns. Along with seasons, the flowering, fruiting and leaf-flushing patterns of trees, shrubs and herbs appear to change every year. In this context, SCSTE had taken the first step by giving awareness to nine(9) schools in the city about SWP during 7th to 9th June 2016, which involves awareness and hands-on training for students from class VIII to class X. Ashish Shah, from the National Center for Biological Science, New Delhi was the resource person

throughout the programme. Block-level programmes followed which had been taken up by field volunteers of SCSTE.

In the second step of SWP, Smti. Swati Sindhu, expert for WIPRO, was invited to provide and insight about the whole process of the Programme, as a results SCSTE, in March 2017 has prepared the list of trees locally produced in every district of the state, formation of Eco-Clubs in schools in different C&RD Blocks by the science Block committees, where workshops will be conducted for teachers and students to introduce them to the Programme.



1.3.8. PROGRAMME ON INNOVATION:

SCSTE, Meghalaya has taken the initiative to promote grassroots innovations and traditional practices. The Programme was organized during December, 2016 to Block development officers (BDOs) of different blocks of the State coordinated in different awareness activities. Invitations were widely publicized to NGOs, villages and schools within each C & RD Block in the initial process of scouting of innovations in the State. A Block-level Innovation Meet was organized where members of NGOs, village folks and school children participated in the Meet and presented their innovations ranging from agriculture, energy, environment, general utilities and traditional health practices. During the Block-level Meet, best innovations were selected for presentation at the District Level Meet, further, during the District-Level Meet, innovation were evaluated and examined by experts from NIF- Guwahati, innovations with good potentials for commercialization and with contribution to societal's development were then selected for presentation at the State-Level Regional Innovators Conclave held at Shillong during the 28th February to 2nd March 2017.



1.3.9. ECO-CLUB PROGRAMME:

Under this Programme Eco-Clubs formation has been initiated during 2016 and encouraged throughout the State especially village schools to take up activities relating to environment and eco-system in their local areas. Such activities include season watch,

school nurseries for tree plantation, bonsai plantation, etc; nutritional garden to supply nutritious food value for mid-day meal programmes and adoption of watershed areas in their own local areas for maintenance and management processes, these clubs will also add to the income of the schools since the products from school nurseries like trees and bonsais could be sold during tree plantation Programmes. Initiatives has been taken by SCSTE to identify model schools in one village where adjoining villages also can take up similar activities, till date 98 eco-clubs have been identified in the different blocks of the state.



1.3.10. NATIONAL SCIENCE DAY CUM REGIONAL INNOVATORS CONCLAVE-2017

The National Science Day (NSD) Celebration 2017 was organised in Shillong in a grand manner during the 28th February to 2nd March 2017 at U Soso Tham Auditorium, Shillong. A Regional Innovators Conclave was also organised as part of the NSD-2017 Celebration. The programme was organised in collaboration with North Eastern Council (NEC), National innovation Foundation (NIF)-India, Shillong Science Centre (SSC), Bio-resources Development Centre (BRDC), Planning Department, Govt. of Meghalaya and Meghalaya Basin Development Authority (MBDA) and NCSTC-network, DST, Govt. of India. The Event was graced by the Hon'ble Deputy Chief Minister, Meghalaya, Prof. R.C Laloo as the Chief Guest. Other dignitaries present were Dr. Ampareen Lyngdoh, Minister, Urban Affairs, Shri. C.K Das, hon'ble member to CEC, Shri. B.P Dutta, Ex-chairman, Rajya Sabha, Shri. R.M, Mishra, IAS, Principal Secretary to the Govt.of Meghalaya, Planning Department, Shri. P.L.N Raju, Director, NESAC, Shri. S.Hamilton, Regional Director, Atomic Minerals Directorate, Govt of India and others.

The Programme kicked off with a Science March with placards themed around science and innovation, started from U Soso Tham Auditorium, Shillong, Science & Environmental painting competitions, extempore and open quiz competitions were also organised for school children from all the blocks and districts of the State. An innovative idea competition, where specific issues, and Innovation Exhibition by several children were also organised as part of the celebration. Forty (40) Child scientists who had represented the State on the 24th National Children Science Congress-2016 held at Baramati, Maharashtra during the 27th to 31st December 2016 were felicitated during the Inaugural function. Each child-scientist carries a cash award and a memento. Science Popular lectures by resource persons on different science-related issues were also organised during the 2 day Programme.

surrounding area to IMD Weather Stations. Photo exhibitions, exposure to instrumentation centre like seismograph and lectures on specific topics relating to climate and weather were also part of the activities organised during the Programme.



1.3.12. WEEKLY RADIO SCIENCE SERIAL IN KHASI LANGUAGE

Since 2010, the State Council of Science, Technology & Environment, Meghalaya is implementing the Weekly Science Serial in Khasi under set themes. Every week the science serial is being broadcasted through the All India Radio Shillong. This serial though in the form of duco-drama yet it was very informative and have succeeded in giving awareness on various scientific truth. The Programmes is sponsored by Vigyan Prasar, New Delhi.

During the 2015-16, the series on the theme 'Atom to Star' were successfully implemented. The listener from across the community gave good feedback. The serial is still continuing during the current financial year under the theme "Date with Disaster". Based on the success of the Science Serial in Khasi Serial, The Science Serial in Garo language was also started in 2016 in which 26 episodes are being developed and broadcasted under the theme "Towards a Healthier Life" which was broadcasted from All India Radio, Tura and AIR Shillong respectively. This programme was also very popular in where lots of feedback were received through phone calls and SMSes.

1.3.13. SCI-CONNECT PROGRAMME:

"Sci-connect"-Connecting Science with young talents with science is a programme initiated by Vigyan Prasar, New Delhi for children in North Eastern States of India. The main objective is to sensitise young children in upper primary to secondary levels about science in daily life so as to help them practice the method of science from their childhood. The Programme will also help children in remote areas to showcase their talents and innovative ideas. Participating schools in the State had been provided with a set of films produced by Vigyan Prasar through SCSTE, Meghalaya for screening. In the State, fourteen (14) schools registered for the Programme, with 336 students. A selection test in written format was organised all over the State on 29th March 2017 where 302 students appeared for the test, fifteen(15) students will be selected after evaluation of the screening test examination for the State-level Meet and winners will participate in the Regional-level Meet, the award carries a prize money.

During the screening test conducted on 29th March 2017, officials from Vigyan Prasar, Shri. Navneet Gupta and Shri. Narendra Singh visited the State and have discussion with officials from SCSTE about the Programme. They also visited some of the centers where the

tests were conducted and interacted with students before the commencement of the screening test.



2. SCIENTIFIC RESEARCH AND DEVELOPMENT OF APPROPRIATE TECHNOLOGIES

2.1 OBJECTIVE: To put an application of appropriate technologies for daily life improvement and socio-economic development.

2.2. ACTIVITIES:

2.2.1: VASTU (VILLAGE ADOPTION FOR SCIENCE AND TECHNOLOGY UNITS) PROGRAMME

Application of appropriate technologies needs to be intensified where more efforts are taken to concentrate on S&T inputs in one particular village, SCSTE has adopted one village in one C&RD Block of the state on recommendation of the BDO's. Community mobilization and demonstration have been carried out in the first phase of implementation, 8 (eight) villages have been completed with actual training on Improved Chulha, Terafil Water Filter, Low-Cost Sanitation, Rain Water Harvesting and Pedal Pump Technologies .In each of the village, village folks including men and women actively participated and express their happiness that such interventions will help them to overcome drudgery especially in women folks and also for a better daily life applications, these villages are:

- (i) Mawkasain Village, East Khasi Hills
- (ii) Adingre Village, West Garo Hills
- (iii) Bolmoram Village, East Garo Hills
- (iv) Sakhain Moolimen Village, East Jaintia Hills
- (v) Wahmawlein Village, East Khasi Hills
- (vi) Bir Village, Ri Bhoi District
- (vii) Khonglah Village, West Jaintia Hills
- (viii) Thadmusen Village, West Jaintia Hills



2.2.2: PEDAL PUMP TECHNOLOGIES:

SCSTE, Meghalaya through its water supply technology had made an intervention in Adiggre village, under Dadengre C&RD Blocks, West Garo Hills, the village located in the fringe areas of hills does not have adequate basic facilities, of which water is one such acute problem face by the village, as they have to drink water from a source located at 360metres distance. Six (6) nos of Surfaces Pedal Pumps were installed in the village at different utility points, where discharge of water is 5 liters in 14 seconds. Appropriate for water supply to the village of 17 HH for their domestic uses, which had also save their time and reduce drudgery. Other S&T inputs like Improved Chulha, Sanitation and Terafil Water for safe and clean drinking water were also intervened.



2.2.3: RURAL ELECTRIFICATION AND LIVELIHOOD DEVELOPMENT:

A 1(one) day international workshop on ‘Rural Electrification and Livelihood Development using Micro hydropower in Meghalaya and other NE regions’ was organized by SCSTE Meghalaya in collaboration with Hydro Empowerment Network (HPNET)during 16-18 November 2016,delegates from South Asian Countries like Nepal, Sri Lanka, Malaysia, Indonesia including experts from line departments of the state, unemployed youths with engineering backgrounds also attended the workshop. An experiential sharing by practitioners from S.E Asia was delivered on the success and Loopholes based on social, technical and geographical conditions. Sites visits were arranged to identify potential sites for installation of micro hydro units in the state, with the objective to create livelihood for unemployed youth engineers.



2.2.4 AWARENESS PROGRAM ON SAFE DISPOSAL OF BATTERIES:

As part of the Solid Waste Management Programs, SCSTE, organized as 1(one) day awareness camps or “Safe Disposal Of Batteries Held” at TRYSEM Hall, Nongstoin, West Khasi Hills & Jowai, Jaintia Hills on the 14th & 22nd February 2017 respectively. Shri Vishnu Lakshman CEO, Trident Power Solitaires, Bangalore and consultant SCSTE, was the main resource person during the camp, who had emphasized or certain points mainly related to safe disposal of batteries and Environment Protection , on the following points:

- Battery manufacturing
- Battery technology
- Clearing and Maintenance record of the battery
- Safe disposal of battery
- Livelihood activities(Maintenance and Record Keeping of the Battery)

As part of the initiative on Solid Waste Management Act 2016 for towns and village, battery disposal was taken as the topic, since it has become a common household products used for computer, car batteries, mobile phone, children's toys, flash lights, remote controls, etc and since regular fresh disposal is dangerous to the environment safe disposal of batteries after used must be dealt with properly for a safe and clean environment.

2.2.5 TRAINING ON BATTERY SYSTEM & SOLAR ENERGY:

In house training on battery and solar energy under Green and Renewable Energy was organized by STSTE during the 15th to 18th February 2017. Shri Vishnu Lakshman, CEO Trident Power Solitaires, Bangalore and consultant SCSTE was the resource person throughout the programme. Theory and practical sessions were taken, a system of solar panels are being installed to run solar fridge, the system is being under observation .The objective of organizing the training is to use green and renewable energy for sustainability, where one solar fridge was installed run by solar energy.

2.2.6 CAPACITY BUILDING ON RENEWABLE ENERGY:

STSTE, Meghalaya organized a training programme on renewable energy, emphasizing micro- hydro power energy for engineers and unemployed youth with engineering background. The programme was held on the 13th to 22nd February 2017. Shri. Ramasubramanian Vaidhya Nathan, consultant, SCSTE, Meghalaya was the main resource person throughout the programme. During the 10 (ten) days programme, emphasize was made on micro-hydro power and how to generate power from natural water sources like streams, rivers and waterfalls in the state. Site visits were made to Elephant Falls E.K.H, Mawsawa, E.K.H, Sohliya, Ri-Bhoi District and Lawbyrwa, Ri-Bhoi District, where volume of water and head of the water-falls can be measured and calculate on how much energy can be generated for lighting and irrigation purposes. During the Programme it was also discussed on Pre-feasibility Report on SHP in the state.

2.2.7 VISIT OF MR. AUKE Y.IDZENGA FOUNDER AIDFI, PHILIPPINES

Mr. Auke Y. Idzenga, founder and management committee head, AIDFI visited SCSTE during the 6th -7th September 2016, with regard to Hydraulic Ram Pump (HRP) Technology field visits were conducted to those sites where HRP units had been installed in recent years. The sites are CTI, Byrni Ri-Bhoi District, Umsewli, East Khasi Hills, Shillong Science Center, NEHU campus, from, Shillong.

Further discussion has also had on the potentiality of the technology in the state, and for any installation the site has to be surveyed and study and that all the basic data such as flow of water, high expected on flow should be taken into consideration.

Mr. Auke stressed on three aspects on the application of HRP technology in order to achieve good activity, value and sustainability:

- (i) To have local manufacturing in the state for different range of pump by which trained manpower is required for the purpose.
- (ii) To train local people to become installers of HRPs.
- (iii) To mobilized the community to contribute, corporate to work together so that maximum result is obtained, and that community needs to be empowered for sustainable of the technology.



2.2.8 CONVERGENCE PROGRAMME ON APPROPRIATE TECHNOLOGIES:

- (i) As part of the convergence effort with other organization in the State. SCSTE, Meghalaya has tied up training programmes with Meghalaya Institute of Entrepreneurship(MIE),appropriate technologies, relevant to basic needs were incorporated during the Programme, these are stabilized mud block, c-brick ,improved chulla pedal pump and terafil water filter. Awareness, demonstration and training sessions conducted were to the beneficiaries deputed by MIE from different blocks and districts of the state, 6(six) such Programmes were organized during 2016-2017.



- (ii) Convergence Programmes on Improved chulla technology were organized with Society for Promotion of Indigenous Knowledge and Practice (SPIKAP) at Thangshiar Village; East Khasi Hills on 19-4-2016 and with Forest Dept on 9.11.2016 at Raid Nongket, Ri Bhoi District village folks actively participated in the Programmes and installed units of Improved Chulla in their respective households.



(iii) A convergence training Programme on Biomass-drier & Low-Cost Bakery oven with Soil & Water Conservation Dept, Govt of Meghalaya was conducted in a 1(one) day Programme on energy-based technology, like biomass drier and low-cost bakery oven on 24.8.2016 where technical support was provided to 21 participants from Laitkyrhong and Jongsha Villages, East Khasi Hills, deputed by Soil and Water Conservation Dept. Awareness and Technical sessions were conducted where trainees operated biomass drier by drying ginger, spices, vegetables, fruits and meat, whereas bread, cakes biscuits were the bakery items made by the trainees during the practical session on low-cost bakery oven.



(iv) A 2(two) day training on waste paper re-cycling was conducted for members of Ms J.S Enterprise ,Shillong during the 14th & 15th April 2016 at Shillong Science Center, NEHU campus. During the training the members took active part in the phase wise manner of the re-cycling process, and put forward many questions relating to technical activities of the technology. It may be mentioned that the members of the firm are also dealing with the subject matter pertaining to re-cycling of wastes and degradable items and has a potential for setting up a similar unit in the future.



(v) Awareness & Demonstration of appropriate technologies for students of Martin Luther Christian University (MLCU) as part of the National Technology Day-2016. A 1(one) day awareness & demonstration was conducted on 12.5.2017 for MLCU students who

studied final year in Environmental Science. The Technology demonstration were those related to basic amenities from housing, cooking, lighting, water and sanitation under the different sectors. The students were also introduced to waste paper re-cycling activities, a summary of the feedbacks from the students, expressed their interests to attend such programmes which is part of their syllabi, and especially to observe National Technology Day also in their Institute.

- (vi) Workshop for VECs at Laitkroh and Mawphlang C & RD Blocks organized by C & RD Deptt, Govt of Meghalaya: The Programme was organized on the 7th and 8th September 2016 at Laitkroh Khadarshnong and Mawphlang blocks respectively. The objective of the programme was to create awareness on the villagers on the activities and types of the work that can be taken under MGNREGA. STSCE, Meghalaya was invited to highlight the different technologies that can be taken up by villages and also for convergence made by means of appropriate technologies mean for uplifting and improving daily life of people.

2.2.9 TRAINING ON HYDROPONICS TECHNOLOGY:

A training on Hydroponics was conducted by Future Farms, Chennai during the 6th -28th March 2016 5 (five) participants were deputed by SCSTE Meghalaya. The technology developed enables effective and accessible system in greenhouse facilities and related urban gardening products that respects the natural environment, while simultaneously growing fresher, healthier produce. Intensive training conducted were on (i) Step for setting up of Hydroponics structure which includes water tests, climate conditions and planning.(ii) Types of system used for hydroponics cultivation including Nutrients Film Technique systems and Deep water culture. The outcome of the training is to enable common people to adopt the method of hydroponics within the resources of their own homes, in roof top, balconies, backyards and in their window sills. The training also enabled and encouraged entrepreneurs for higher earning capacity and a better quality of life.

2.2.10 TRAINING ON BAMBOO TECHNOLOGY:

As one of the essential alternative building construction and also wide grown in the state. SCSTE has conducted in-house training on Bamboo treatment and Bamboo products with resource persons from TRIBAC, Tripura. In-house trainees and also trainees from different organizations in the State attended the training. Trainees were trained on how to treat bamboo before it is used for making of any bamboo products. Bamboo products made by the trainees out of treated bamboo were bamboo chairs and tables, bamboo screens/partitions. Packaging units for pineapple using bamboo was also included during the Training Programme. Initiatives were also taken by SCSTE to use treated bamboo for housing construction. The outcome of the training is that it offers a good venture for entrepreneurs to use green technologies for construction facilities.

2.2.11. LOW COST COLD STORAGE USING APPROPRIATE GREEN TECHNOLOGIES (ZERO ENERGY COOL CHAMBER) AT NONGMYNDO, WEST KHASI HILLS

The Project is being funded by Deptt. of Science & Technology, Govt. of India. The Project site selected is Nongmyndo Village located at Mawshynrut C & RD Block, West Khasi Hills district. The village thus selected has a good potential for production of crops, fruits and vegetables especially ginger but the villagers are suffering economically due to the fact that harvested produce had to be sold away at thrown away prices, or taken back to the village or either wasted away. SCSTE's intervention with this regard is to apply the low cost cold storage using stabilized Mud Block and Solar Energy as Green Technologies incorporated in the construction.

The Preliminary study about the village under consideration had been done by Meghalaya Basin Development Authority (MBDA) which found that the pole economic condition of the villagers is the fluctuation in prices and marketing problems. Hence, SCSTE has come up with the following objectives:

1. To establish a Low Cost cold storage facility using appropriate Green Technologies
2. Build up the capacity and skills of Local mansons in the construction of such a facility.
3. Improve social economic conditions of farmers where farm produce can be stored and market at reasonable rates.

❖ SUMMARY OF PROGRESS (FIRST PHASE)

- (i) Intimation to concerned District & Block authorities.
- (ii) Mobilization of the community and to conceptualize them about the whole system ranging from their type of cultivation, land produce, marketing and livelihood improvement.
- (iii) Awareness on the technology including the impacts and benefits that can be availed.
- (iv) Instill the spirit of community participation among the villagers, as a result land for construction of the cold storage was donated.
- (v) Willingness of the villagers to contribute in terms of man-power to assist the labourers.
- (vi) Formation of the society registered under the name 'Myndo cold storage and marketing cooperative Society'. The society will run and manage the unit after completion. The revenue generated out the above unit will be handled and managed by the above Society.

Other arrangements made are:

- (i) Making of temporary shed for the labourers.
- (ii) Arrangement of materials at site, like sand, cement, soil, etc for stabilized mud block construction.
- (iii) Transportation of the Interlocking Stabilized Mud Block machine to the site.
- (iv) Capacity building for laborers and interested villagers in stabilized mud block making.

- (v) About 10000 nos of stabilized mud blocks have been completed by labourers and villagers as well till date.



2.2.12. BAMBOO TREATMENT, JOINERY & MUDBLOCK MAKING

A five days training on bamboo treatment, joinery and mud block making was conducted by State Institute of Rural Development (SIRD) Nongsder at Nongbah Myrdon during the 27th to 31st March 2017. SCSTE, Meghalaya deputed 24 nos of participants, including, those from different organizations and unemployed individuals.

There was a good interaction between resource person and participants. Activities were undertaken by participants included those of housing construction and joinery in bamboo. The trainees were given the opportunity to try on the technologies that had been explained and demonstrated during the hands-on training programme. The trainees learned the activities related with bamboo and mud-block construction including joinery of the bamboo construction. The trainees will be further provided intensive training, where they can become master resource to propagate the technologies in the State.



2.2.13 WEBSITE OF STATE COUNCIL OF SCIENCE TECHNOLOGY AND ENVIRONMENT

SCSTE, Meghalaya has taken the initiative in developing the website to highlight the S & T activities undertaken in the State. Previously any S & T activities of the council were routed through Planning Department, Govt. of Meghalaya. The Universal Resource Locator (URL) of the website is www.scste.org

E. PROGRAMMES ATTENDED:

1. India International Science Fair-2016-New Delhi-7th to 10th December 2016
2. Indian Science Congress- Tirupathi- 3rd to 7th January 2017
3. Workshop Developing framework for training partners- 23rd to 24th February 2017
4. Exhibition on Energy- 28th to 29th March 2017