



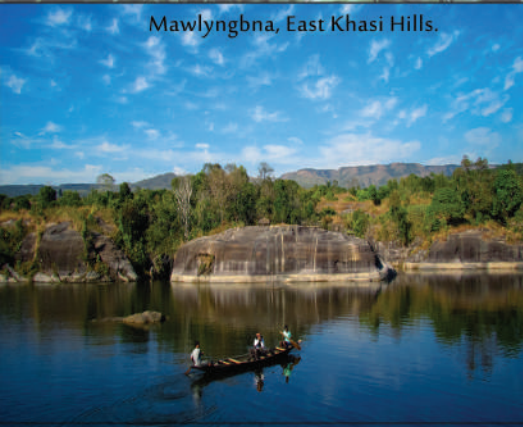
# Green Pages

Newsletter of Meghalaya Institute of Natural Resources

Vol 1 / No 3

Oct - Dec, 2015

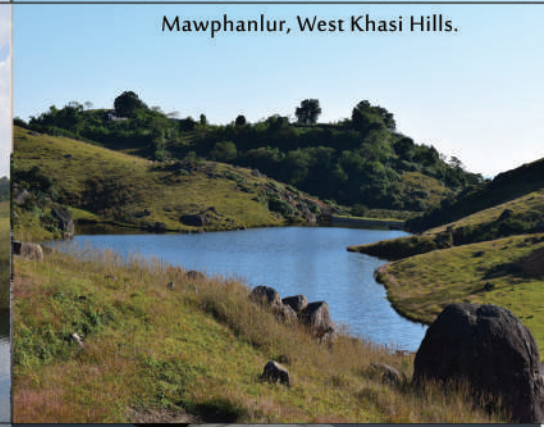
Mawlyngbna, East Khasi Hills.



Thlumuwi, West Jaintia Hills.



Mawphanlur, West Khasi Hills.



## About MINR

The Meghalaya Institute of Natural Resource (MINR) is one of the three Institutes established under the overall umbrella of MBDA. The Institute's main objective is to manage and strengthen knowledge for natural resources and sustainable livelihoods.

This Institute provides the knowledge services through the Centre for Bio-Resources, Centre for Water Resources, Centre for Land Resources and Centre for Climate Change.

## Vision

Enriching and empowering all the stakeholders with Clean And Green Technologies.

## In this issue

- ❖ From the Editor's desk
- ❖ Guest Column by Smt Patricia Mukhim  
- Climate change: an orphaned agenda
- ❖ Green Initiatives
  - ❖ Clean and Green Energy
  - ❖ Youth for Green Campaign
  - ❖ Centre for water Resources
  - ❖ Cash crop Plantation
- ❖ Moving towards a Greener Meghalaya

## From Editor's Desk

Agriculture and the allied livelihood activities are very closely linked to the natural ecosystems and therefore health and vitality of ecosystems determine well being of the people deriving their livelihoods by such means. Increasing livelihood needs and improving living standard mount increasing pressure on natural resources which often tends to create imbalance in the sustainable use of the ecosystem services. In the process, a vicious cycle sets in and gradual impairment of the ecosystems takes place. In order to fulfill their rising needs, people resort to various methods and use external inputs to enhance productivity from the agriculture systems. All this happens in a gradual way making people think that they do not have choices to make but to continue in the business-as-usual manner. Perhaps, solution lies in designing appropriate interventions to build capacities in the people so that they can exercise choices from the bouquet of possible livelihood options which are sustainable vis-à-vis natural resources.

Dainthlen, East Khasi Hills.





# *Climate change: an orphaned agenda*

*Patricia Mukhim*



*Climate change is a global threat but more so for the indigenous inhabitants of the polar regions, the tropical rain forests and people living in the mountain areas. Debates on the issue of climate change have gained ground in the last decade particularly after Al Gore brought out his famous book, 'Earth in the balance.'*

*Developed nations have come up with different mechanisms to offset climate change. One of them is carbon credit rating or carbon sequestration whereby countries which conserve forests would be monetarily compensated for allowing those forests to become the carbon sinks of the developed world. While such proposals seem attractive at the outset and states like Arunachal Pradesh which claim to have 81% of their land under forests have already made plans for claiming green bonuses, the consequences of such mitigating factors are yet not fully known or understood. First of all, the question is who will measure the quantum of carbon that can be dumped. Secondly and most important is who gets the money and how will it be used to create/regenerate deforested areas? As of now the carbon sequestration agenda seems to have hit a roadblock.*

*Meghalaya is one state where, as yet no single environmental NGO is pursuing the agenda of offsetting climate change hazards. The state has already lost three rivers very vibrant rivers as a result of Acid Mine Drainage (an uncontrolled leakage of sulphuric acid from coal mines). It is important for the state to take serious note of this toxification of water bodies because they are an integral part of our biosphere. Once the rivers Lukha, Lunar and Myntdu have shoals of fish living in the rivers and these provided food and nutrition to the people. Today the rivers are depleted of all life and show signs of being dead, with stones having turned a golden rust colour.*

*It is heartening that under the Meghalaya Basin Development Authority attention is being paid to climate conservation and that young volunteers are now fanning out across the state to try and reclaim our lost environment. In fact, Meghalaya and its people should try and create more sacred forests as this is the only sensible way to conserve water. Over the decades many of our catchments have been destroyed by callous felling of forests to make way for coal and limestone mines. On the plea that coal and limestone mining are cottage industries, many of the environmental norms that are otherwise strictly enforced elsewhere are waived off for Meghalaya. As a result the mine owners have exploited the natural resources without pooling back anything towards environmental conservation initiatives. They have also got away without any corporate social responsibility (CSR) because they are not seen as mining companies but as individual owners. The Sixth Schedule grants certain protection to the tribals of Meghalaya and under this Schedule land, forests and water bodies belong to communities, individuals or clans. The state owns no land; hence it has no control over how the 96% of forests outside the purview of the State Forest Department are managed. This serious loophole in the Sixth Schedule which also allows the granting of mining licenses to the District Councils needs to be plugged.*

*Fortunately, for the people of Meghalaya the National Green Tribunal (NGT) has stepped in and put a stop to rampant mining unless the state comes up with a proper mining policy and a plan of action on environmental regeneration by mine owners. Meghalaya with its smoke-stacked steel industries was using charcoal in unimaginable proportions. This has resulted in rapid depletion of forests particularly in West Khasi Hills. Fortunately charcoal production is now banned. But the forests of West Khasi Hills are yet to be regenerated. But West Khasi Hills is not the only state with a depleting forest cover. Anyone going towards the Mawlyngot tea gardens would have passed through miles of degraded forests which no one has cared to do anything about. It would be hard to believe that these areas were as bald as they are today. This issue was brought to the attention of the MBDA and I has suggested that some study be conducted to see if something could be done to change this mini desert into a grassy patch if not a full fledged forest.*

*The people of Meghalaya need to become major stakeholders in forest conservation. We cannot wait for Government alone to rejuvenate this ecosystem. Elsewhere peoples' movements have resulted in degraded land being turned into lush green forests. Dehra Dun is one such area where a forest protection force has been able to recreate forests out of barren lands. This 22,249 sq km of land belongs to us and to the future generation. We need to have a community action plan. The Government can help partner this initiative. MBDA volunteers are a key component of this plan.*

*Patricia Mukhim is a senior journalist, social and environment activist.*





Rynji Falls, East Jaintia Hills.



Umngi River, West Khasi Hills



Rongbang dare Falls, West Garo Hills.

## Green Initiatives

### CLEAN & GREEN ENERGY

With the fast depleting conventional energy sources and rapidly growing demand of electrical power, the future of conventional electric power systems are getting uncertain. This has led to worldwide thrust on development and use of non-conventional energy sources for electric power generation & use. Connecting remote villages with the electrical grid is a resource intensive and slow process. Lack of access to clean cooking fuel in such areas adds to the misery by causing respiratory & other ailments, especially to women and children. Extensive research and development are essential to create urgent breakthroughs in the field of renewable energy applications. This enormous challenge requires a multidisciplinary approach, in close collaboration with governments, industry and consumers.

Taking a step towards this vision, IDFC with the support from C&RD Department, MBDA and the local community lighted Mawlyngnong with 30 solar streetlights. At Mawlongbna village the Micro hydel Power Project, Solar street lights and solar water pump are options being taken up for generating clean energy.

### YOUTH FOR GREEN CAMPAIGN

It has always been viewed that participation of youth in environmental conservation is critical. Realising this, MBDA has involved youths in a significant way in different programmes.

Youth are also central to changing people's attitude, this is where evoking values among the youth for environmental conservation holds promise for a greener future.

Nurturing of environment conscious youths can be done through a process of building awareness and inspiring young people to understand and engage with environmental issues so that they can initiate and lead citizen actions and bring about social change.

Environment awareness activities with the involvement of youths are being carried out throughout the State. Screening of movies, street plays, flash mobs, marathon, essay competitions etc are all designed to engage young minds. An important component of the campaign is to encourage formation of eco-clubs in schools and colleges and to register as a "Green volunteer" to be the change initiators of the state.

### CENTRE FOR WATER RESOURCES

Water is a critical resource, central to the sustenance of all life. Developmental and livelihood activities at all levels are dependent on the availability of water; hence it's efficient use, management and conservation is of utmost importance. Meghalaya, in spite of being rich in Water

Resources, still faces water problems. Adding to the stress is the exploitation of Water Resources as well as other Natural Resources that directly or indirectly affect the Water Resources, of the State.

While water problems are complex the solutions need to be holistic. To better understand the problems of water resources in the State and develop effective and sustainable solutions, Centre for Water Resources has been envisioned.

The centre acts as a convergence point for different water sector related line departments, academic institutions and Non-Governmental organizations. The centre is also designed to act as a store house of all water related data on multipurpose reservoirs, Jalkunds, springs etc across the State.

### CASH CROP PLANTATION

Plantation Crops in Meghalaya hold high potential to provide livelihood options to the people along with environmental benefits. Plantation crops were introduced for controlling shifting cultivation in the past. The crops introduced were mainly cashew nut, coffee, black pepper and rubber.

Coffee plantations encourage biodiversity hence provide multiple sources of income from unit area. Crops that can be grown with coffee plants are areca nut, black pepper, orange, guava etc . This provides insurance in an event of low production or low profitability from one crop. Efforts are being made to promote coffee crop. The MBDA along with the State Coffee Board and the Soil & Water Conservation Dept has formed a task force to chalk out the Road Map for Promotion of Coffee and has also decided for setting up a minicuring and processing unit of Coffee.

The Soil & Water Conservation Dept will act as the Nodal Dept for technical support for expansion of coffee and MBDA will facilitate marketing of the same.



Solar Lamps at Mawlyngbna Village



Run for your Environment, Marathon Organised by MBDA and Forest Department.



Water Quality testing at Dainthlen, East Khasi Hills



Coffee Plantation at Pynursla, East Khasi Hills



# Moving towards a Greener Meghalaya



20th - 25th July, 2015: Training of Trainers (TOT) for Springs Protection Initiative. The workshop was organised to train a pool of master trainers from various line departments and volunteers, about the basic characteristics of springs, methods of reviving them and management of spring water. They were also trained to map springs as part of the efforts to come up with a comprehensive Spring Atlas of Meghalaya.

22nd September, 2015: Sensitization on Hydrological Monitoring and Water Budgetting. Dr. Sonali Saha, Guest Lecturer at St. Anthony's College, presenting a presentation on Water Budgetting and on the method of calculating ground water level. Participants included officers from department of Soil & Water Conservation, Fisheries, Water Resources, Public Health Engineering (PHE) and MBDA officials.



16th Oct, 2015 : Visit to Mawphanlur Village. A team from MBDA visited Mawphanlur Village located in West Khasi Hills District, as part of the Eco Tourism Development Programme. A PRA (Participatory Rural Appraisal) exercise was conducted for a comprehensive knowledge of the village for designing intervention plans. A total of 18 springs were also mapped in and around the vicinity of the village.



3rd - 9th December, 2015: COP21: The UN Climate Change Conference in Paris. Two officers from Meghalaya Dr Subhash Ashutosh, Addl PCCF & Dy CEO, MBDA and Shri L. Shabong, OSD MBDA, participated in a side event held at COP21 in Paris. Dr S. Ashutosh also made a presentation titled - "Community Nursery for Catchment Area Afforestation in Meghalaya: An Initiative for Rejuvenating Streams and Adapting to Climate Change."

2nd Oct 2015: Mission Green Campaign. On the occasion of Swachh Bharat Abhiyaan, the Meghalaya Institute of Natural Resources (MINR) in collaboration with the Green Volunteers took part in the cleaning drive at Mawlai, Shillong. The Meghalaya State Pollution Control Board also participated in the efforts for a clean environment, carrying out pollution test of vehicles.



17th Oct 2015 : Inauguration Of Pitcher Plant Reserve. The Basin Development Unit (BDU), South West Khasi Hills in collaboration with the Office of the Divisional Forest Officer, Wildlife Division, inaugurated a Village Reserve for Pitcher Plant at Nongkldait, South West Khasi Hills. The main aim of this Village Reserve is to preserve and protect different varieties of pitcher plants found in that area. This will also help promote eco-tourism industry in the region.



Community Nursery  
Ensuring availability of the quality planting material of indigenous species as per the choice of the communities is one of the fundamental requirements for greening of catchment areas and rejuvenation of degraded lands under Mission Green of IBDLP. MBDA has taken initiative to promote community nurseries in different districts of the State through partnership with the existing functioning CBOs such as Cluster Level Federations (CLFs), Natural Resource Management Groups (NaRMGs), JFMCs and Watershed Committees. Over sixty community nurseries have been established under the programme so far.

