MLCU ACADEMIC DIGEST
Volume 3  2019
COMPILED OF MULTIDISCIPLINARY RESEARCH AND ARTICLES

Martin Luther Christian University
Shillong, Meghalaya, India
MLCU Academic Digest

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MLCU ACADEMIC DIGEST

The MLCU Academic Digest is annual, online and print compilation of abstracts, book synopsis, articles and ongoing project details on multidisciplinary research written and carried out by the faculty, adjunct faculty, students and alumni of MLCU. The digest covers all the thrust broad research areas of MLCU including but are not limited to them. While pursuing multidisciplinary areas of research, the following are the emerging research thrusts in MLCU that cut across academic programs beginning from undergraduate level up to the doctoral studies.

- Environmental Studies
- Indigenous Knowledge Systems and Practices
- Education
- Gender Studies
- Tribal Psychology
- Mental Health
- Traditional Livelihoods

OBJECTIVES OF THE COMPILATION

To provide a medium through which scholarly reports and materials are accessible to students, faculty and alumni.
To recognize the contributions of faculty and students in the overall academic development of the university.
To recognize the achievements of the students in the area of research.
To document and encourage research based writing by students and faculty of MLCU.

FEATURES

All materials will be an open accessible content
Only abstracts of published material are included. Complete content may be accessed from the respective source.
The soft copy can be downloaded from the university website mlcuniv.in
ABOUT THE UNIVERSITY

Creation of the University
Martin Luther Christian University was created by Act No. 11 of 2005 of the Legislative Assembly of Meghalaya and received the assent of the Governor on July 6, 2005. The Government of Meghalaya issued the gazette notification on February 22, 2006. The creation of the university is in accordance with the University Grants Commission Act, 1956 under Section 2(f) and the university is empowered to grant degrees under Section 22 of the UGC Act.

Several students and graduates of MLCU have been awarded JRF, NET and merit scholarships by the UGC. Many graduates of MLCU are pursuing their higher studies in universities and institutions in different parts of the country and abroad.

The First Christian University
Martin Luther Christian University is the first full-fledged Christian University in India, the capstone to more than two centuries of Christian education in this country. As a Christian university, MLCU has the mandate, mission and commitment to engage proactively with the Christian community, especially youth, Christian educational institutions and Christian organizations.

A Developmental University
The University recognizes its opportunity and responsibility to contribute to the sustainable development of Meghalaya and the Northeast region, participating not only in higher education, but also in vocational education, health care, information and communication networks, environmental conservation, gender studies, cultural documentation, peace building and interventional projects. The University collaborates with NGOs, community organizations, and industry in the development of the community.

The Name
The University is named after Martin Luther (1483-1546), a church reformer who is known as the Father of Protestantism. Though Martin Luther left law studies to become a monk, his enlightened views on education are quoted to this day. He was especially concerned about “parents who do not have the opportunity or means to educate their children”. His sermon on “Keeping children in schools” later published as a treatise, focused on poor families who needed their children to work rather than go to school. He laid emphasis on the establishment and maintenance of Christian Schools in response to a decline in the church run schools in the 16th century.

The Emblem
The University Emblem comprises of the Knup, the Cross and the Hearth. The Knup is a traditional woven bamboo cane cape used as a protection against rain when working in the fields or out in the open. The Knup symbolises protection and nurture in the journey through hardship to gain knowledge. In the centre of the Knup, is the Cross which is the symbol of Christianity and denotes sacrifice and endurance. At the base of the Knup is the Hearth with burning fire which occupies an important place in tribal houses. It is a place where parents and elders gather to instruct, narrate stories and sing songs while imparting the cultural and traditional knowledge of the forefathers to the younger generation.

The Motto
Noted poet, historian and archeologist George Fabricius (1516–1571) eulogised the Protestant Reformist, Martin Luther as “The Light of Truth.” Martin Luther Christian University’s motto has emerged from this praise of the Father of Protestantism. According to Fabricius, truth is a light that illuminates, educates and edifies.
The Mission Statement
To contribute to the sustainable development of Meghalaya and Northeast India, by providing knowledge, skills and values that will enable our students to become global citizens, while upholding gender, ethnic and religious equity for all, conserving its bio-cultural heritage and by recognising its Christian legacy and commitment.

Vision
Christian education and values for the betterment of society, especially its youth and Christian community.

The Vision of the University has encapsulated the mandate and commitment of the Founders of the University which have been recorded verbatim in the Minutes of the first meeting of the Board of Governors and is extracted as below:

“The role and responsibility of the church is to transform society in a manner that is relevant in today’s context. The process of transformation must come about in such a way that it solves the problems of unemployment among young people, poverty, health, education and development. The university has come at the right time and should help our people to help themselves. Our state has a rich potential in nature and the university should help to tap these resources in a proper way. The university should be rooted in the local culture.”

“The university should help to define the role of the church in this society. It should serve the people of Meghalaya. Historically, the church has provided school and higher education in Meghalaya but the university will be the crown of our educational efforts in Meghalaya. The praxis of faith, grace and scripture is education.”
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- Safeguarding Ecosystem Services: Fallow Management Good Practices Summary of ‘Keynote address’
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- National Conference of Vice-Chancellors and Directors of Higher Education Institutions in India Summary

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Agape, February 2019

### Family Planning: Should men be involved?
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TNT- The NorthEast Today, October 03. 2018

### Moral values in the Khasi community
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Meghalaya Times, August 22.2018

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### Communication Rights: A Fifty Years of Celebration
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   The Shillong Times, June 28, 2019

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   The Shillong Times, June 25, 2019

3. **Observe Meghalaya Mining Day**
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North East Conclave 2019 on “Transforming North East India through Science and Technology”
Organised by
Institute of Bioresources and Sustainable Development (IBSD), Shillong
(An autonomous Institute of Department of Biotechnology, Govt. of India)
At State Convention Centre, Shillong: 28-29 June, 2019

Summary of presentation by Dr. Vincent Darlong, VC, MLCU in the Panel Discussion on ‘Creating Job Opportunities in NE and Citizen Science Programme’ in combination with ‘Biodiversity Conservation, Traditional Knowledge Systems and Natural Resource Management’

1. **Background:** Govt of India in the Department of Biotechnology has established four autonomous IBSD located in four different locations/states in NE India, viz. Shillong, Meghalaya; Gangtok, Sikkim; Aizawl, Mizoram; and Imphal, Manipur. The ISBDs jointly organised the North East 2019 Conclave on ‘Transforming North East India through Science and Technology’. The two-day programme has been organised into five different panel themes in which 29 panellists from Govt of India S&T / Research & Development Institutions, Universities, State Institutions and Organisations participated. The key objectives of the conclave was to generate ideas for preparing a road map and policy recommendation for North East India in the application of science and technology for progress, prosperity and sustainable development. Nearly 400 students from different colleges and universities in Shillong, besides NGOs and civil society organisations, attended the event.

2. **Panel discussion themes:** The five Panel Discussion themes were the followings:
   (i) Infrastructure and Human Resources Development
   (ii) Health, Nutrition and Bioresources for Prosperity
   (iii) Creating job opportunities in NE and Citizen Science Programme
   (iv) Biodiversity Conservation, Traditional Knowledge System and Natural Resource Management
   (v) Role of bio-entrepreneurship and Micro, Small and Medium Enterprises (MSME) in transforming North East

3. The panel themes on (iii) & (iv) were combined together for more meaningful discussions as the rural lives and livelihoods of North East India is dependent on biodiversity and natural resources, and hence the prospects of creation of job opportunities as well as traditional knowledge systems of the people are around the biodiversity and natural resources.

A. **General introduction and scope of the presentation**

4. **Rural job:** The presentation is about opportunities of creating rural jobs which are about diversified occupation having assured gainful income for improving living standards, meeting family and individual basic needs and aspirations. The discussion is about self-employment based on existing and/or natural skills, but also skills that could be enhanced through capacity training programmes. Rural jobs are also about diversification of income and livelihoods sources. Therefore, many of the rural jobs are season based with multiple activities for multiple sources of income. While each of the sources of income provides assured return, however, aggregation of all the multiple sources of income provides the families and/or individuals the much-needed sustainable income. (We will not be talking about 9 AM-5 PM type of jobs but could even be more demanding at times such as 5 AM to 10 PM and of course, relaxed at other times).

5. **Understanding of citizen science or community science:** Within the scope of present discussion, citizen science (also referred to as community science) may be understood as using science & technology for citizens / communities, but also using citizens or communities to generate reliable scientific knowledge for development triggering rural jobs. Often, community science could be synonymous with traditional knowledge of the communities.
6. **Scope of the presentation**: The presentation would be largely on some pictorial examples from experiences of working in government & externally-aided projects in NE India in creating rural jobs involving community science and application of science & technology. The project is known as North Eastern Region Community Resource Management Project for Upland Areas (NERCORMP) with three phases of implementation, viz. phase I, II & III.

B. **Examples of creating/generating biodiversity-NRM-based rural jobs using community science and application of science and technology**

7. **Food and fruit processing – local knowledge with application of science & technology**: The story of Mrs. St. Alam Anal aged 41 of Thungcheng village, under Chakpikarong Block Chandel District in Manipur. As a member of Self-Help Group in the project financed by Govt of India, she underwent training on 15-days food processing including packaging and marketing in 2014. Mrs. Anal took loans from her SHG to begin her home-based fruit processing unit and the project further supported her getting the licence number of Food Safety and Standard Authority of India (FSSAI) and printing of the product labels. The family has fruit garden and private forest that has many wild fruit trees. The community science in the form of local knowledge used in the process has knowledge on the types of fruits to be used for value additions/processing, methods & quantity of harvesting, and storage procedures for ensuring clean hygiene. The family also has traditional knowledge on the cultivation and production activities of the various fruits being used for processing. It is learnt that the family is expanding its fruit trees plantations with the increasing demands for the products. As informed by the project authorities, Mrs. Anal’s food processing unit now provides gainful employment to 5 members of the family directly, with about 35 others (traders) benefiting indirectly from it as retail sellers.

8. **Bamboo shoots based rural employment**: Knowing the market demand and an opportunity for earning income, two women SHGs having 20 memberships each from H. Mongjang village in Chandel district in Manipur have started Income Generating Activities (IGA) on producing fermented bamboo shoot in large scale from the year 2017. Each member of the SHGs contribute about 160 kg of raw bamboo shoots during season. On an average, the group approximately produce 6400 kg (equal to 60 kg x 40 members) fermented bamboo shoot. The raw bamboo shoot of 160 kg is equal to fermented bamboo shoot of about 50-53 kg. At Rs. 50/kg, the group sold about 2133 kg of fermented shoots, earning about Rs. 1,06,650/-. The initiative has generated direct employment to 5 women of the SHG, while the other members are also given share out of the entire proceeds as their income. Indirectly, the activity provides benefits to about 30 other women who are engaged in retail selling of the product. The community science is the traditional knowledge of the women on the fermentation processes (which takes about 2 months) in addition to knowledge in making of fermentation baskets and methods/quantity of bamboo shoots harvesting from the bamboo clumps. The contribution of science and technology is in the packaging of the fermented shoots.

9. **Integrated agro-forestry/agro-horticulture with apiculture**: As part of jhumland development programme, the IFAD-funded NERCORMP I & II made commendable interventions to improve income from jhum fallow land through integrated agro-horticulture / agro-forestry plantation crops. Building on the local knowledge as part of community science, the species of fruit trees selected were different in different districts and among different communities. In Dima Hasao, litchi and banana, and tree bean or Parkia – all having high market demands were the preferred species. In convergence with Horticulture Department, the project secured good quality planting materials. Spacing of inter-plantations of the species have been done, again, based on the local knowledge. While income started accruing from the banana just after 18 months of plantations, by the 3rd year the litch started yielding and by the 7th year, the Parkia too started fruiting. Project reported an
income of Rs 2-3 lakhs per annum per hectare area from such integrated agro-forestry/agro-horticulture plantations, generating employment for 3-5 people per hectare area. Integration of at least 12 boxes of honey bee per hectare area further enhanced income of the households. Indirectly, another 3 persons (mainly traders) benefited from such interventions. With the promising success stories of such interventions, there has been report of appreciable number of replications and scaling up by farmers through their own investments. The challenge remain timely availability of quality planting materials at affordable rates.

10. Micro-irrigation for land/crop productivity and job creation: Gravity-based micro-irrigation in Mantak village in Chandel District of Manipur State, promoted by Govt of India funded NERCORMP III project, enabled both enhanced crop productivity and employment generations. The irrigation facility benefits about 60 households of the village enabling improved paddy productivity over 80 ha area and production of vegetables during rabi or winter season over 10 ha area. The source of irrigation water has been selected based on local knowledge for perennial water availability and the size of canals have been designed based on local information on the volume of available water. The irrigation canal has since stopped migration of village youth to other places as the water availability for irrigation provided ample opportunities for generating local employment through farming improvement as documented by the project.

<table>
<thead>
<tr>
<th>Crops</th>
<th>Productivity</th>
<th>Income (in Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before</td>
<td>After</td>
</tr>
<tr>
<td>Paddy</td>
<td>2.47 ton/ha</td>
<td>3.2 ton/ha</td>
</tr>
<tr>
<td>Pea</td>
<td>Nil</td>
<td>2.1 ton/ha</td>
</tr>
<tr>
<td>Rapeseed</td>
<td>Nil</td>
<td>2.5 ton/ha</td>
</tr>
<tr>
<td>Cabbage</td>
<td>Nil</td>
<td>2000 kg/acre</td>
</tr>
<tr>
<td>Coriander</td>
<td>Nil</td>
<td>50 kg/acre</td>
</tr>
</tbody>
</table>

11. Application of science & technology and local knowledge in creating jobs: Other examples quoted during the discussion were:
(a) Use of water-hyacinth to create jobs by NERCORMP II project through application of science & technology in which 20 women were trained in West Garo Hills to process water hyacinth into beautiful lady’s handbags, generating rural employment for women.
(b) Low cost sanitary pads making units promoted by NERCORMP III in Tirap district in Arunachal Pradesh is generating employment for at least 15 women directly, and another 120 women in the marketing of the pads. The sanitary pads have
been designed in consultation with the women both for regular use and maternity use. The pads currently have outreach to over 1200 women SHGs promoted by the project.

12. **Concluding remarks**: The discussion concluded with real life examples of two young people who were initially ‘job seekers’ but gradually becoming ‘job givers’ or ‘job generators’. One is Mr Rothell Khongsit, about 35 years from East Khasi Hills, Meghalaya who initially worked with IFAD funded project in Meghalaya as Business Promoter but became entrepreneur by promoting agro-eco-tourism cooperative society, generating employment for 20 young men & women in Konthong Khatarshnong area in its homestay and other tourism-related activities. The other example is the 28-year-old Mrs Vavah Baite from T. Yangnom village, Moreh, Manipur who is now a full-time livestock entrepreneur with piggery unit. She started with 3 piglets in 2014 but today she is raising over 80 pigs, employing at least 6 people directly and generating another 20 or more indirect employment through piggery business and supply of animal feeds. Both use local knowledge to build their successful initiatives.

While, rural North East India has such interesting successful examples of entrepreneurships and job creations, the challenge remain in scaling up and replication these successful models. Government financing, appropriate design of intervention packages and delivery mechanisms, access to finance, access to science & technology through collaborative approaches of different government and private including civil society organisations and research from universities could go a long way in promoting science and technology in creating job opportunities in NE India. The region also needs numbers of rural centres for information/education/facilitation and skilling for young people to enable them to take up appropriate entrepreneurships.

“There is nothing wrong with our young people; there is something very wrong with us when we do not give them the opportunity” *Deputy President Cyril Ramaphosa while addressing Science Forum South Africa in 2017.*

**Keywords**: Science and technology, job creations, citizen / community science, natural resources, biodiversity, traditional knowledge, sustainable development
Summary of Keynote Address of Dr. Vincent T Darlong, VC, MLCU, Shillong during the Technical Session 2 on “Safeguarding Ecosystem Services – Fallow Management Good Practices”

A. An overview of issues and challenges in fallow management

1. “Jhum system”, in the worldview of shifting cultivators encompasses integrated and inter-related activities of jhum in its agriculture/cropping phase and regenerating fallow forests phase; typically, they also integrate livestock (mainly piggery and backyard poultry) and small home gardens as part of their jhum livelihoods systems.

2. Ensuring sustainable jhum systems, as reflections of the traditional ecological knowledge of shifting cultivators for safeguarding livelihoods with ecosystem services, included in judicious maintenance of prolonged jhum cycle (at least 10-15 years or more) that entails protection and management of the fallow forest as common property resources through traditional social governance system.

3. Well-managed and well-stocked fallow forests provided – social, economic & ecological security to the communities, generally meeting the following needs and aspirations:
   - Wild edibles for food and nutrition (including leaves, flowers, fruits, stem, barks & tubers, mushrooms, bamboo shoots, small animals, jungle fowls and partridges, varieties of insects and edible larvae; honey; etc.);
   - Construction materials for dwelling places for people and livestock including thatch grasses for roofing;
   - Bamboo, cane and woods for preparation of agricultural and other livelihoods tools & implements;
   - Fuelwood;
   - Feeds and fodder for domestic animals;
   - Medicinal & aromatic plants; spices, dyes and plants / leaves / flowers / fruits required for cultural/religious rituals;
   - Water for daily needs including for livestock;
   - Streams and small rivulets that provide fish, snails and crabs for food;
   - Community institutions and governance systems around jhum systems with socio-cultural festivals and celebrations, songs and dances, tales and fables ensuring continuous bonding and inter-generational learning processes.
   - Socio-cultural life system and social calendar that revolved around the practices of shifting cultivation.

4. However, land pressure and environmental degradation, more so during the past 3-4 decades, have been the driving forces behind shortened fallow periods (average of 4-5 years or less) among many shifting cultivator communities in NE India, which in turn, impacted sustainable fallow management practices of the communities.

5. Decades of government programmes of ‘jhum control’ through rehabilitation and resettlement of shifting cultivators to alternative livelihoods as well as replacement of jhum with perennial horticulture and plantation crops along with improvement in education, had enabled many shifting cultivators becoming settled cultivators and/or adopting alternative livelihoods. Consequently, the number of households continuing to opt for jhum are progressively reducing among many communities. This, in turn, is impacting the traditional governance systems of jhumland including fallow management practices. Increasing areas of community managed fallow forests are being brought to private or individual ownerships but severely infringing on the traditional ethos of equity, again undermining the concept of egalitarian tribal society.

   - The duration, composition, and management intensity of fallow lands are continuously affected by increasing population, decreasing land availability, changing land use and changing access to markets, capital, and inputs
   - Such situations severely undermined the fallow forests management practices among many shifting cultivator communities, impacting the ecosystem services of fallow forests, along with the natural resource bases and livelihoods of the communities.
   - Added to these situations have been in weakening of traditional village institutions due to various socio-political driving forces, in turn, impacting community land systems by which elite individuals/households acquired (in some case purchased) larger areas of commonly held land including jhumscapes. In other cases, clan land has been converted into horticulture cash crops plantations (of tea, rubber, etc) which also undermined overall ecosystem services.

B. Good practices in Fallow Management

North Eastern Region Community Resource Management Project for Upland Areas (NERCORMP).

6. International Fund for Agricultural Development (IFAD) - GoI funded NERCORMP demonstrated good practices in fallow management in NE India through its two proxy interventions, i.e. (a) Community Biodiversity Conservation enabling establishment of a number of Community Conserved Areas (CCA); and (b) Economic development through plantations in fallow land.

7. Fallow management through CCAs:
   - Project facilitated conversion of jhum fallow forests (mostly 3-7 years fallow forests, but also some degraded community
Many villages where NERCORMP project had worked and the neighbouring non-project villages, do have the presence of valuable trees in the jhum fields. These trees, carefully preserved during weeding, subsequently added values to the regenerating fallow forests with improved availability of NTFPs (wild edibles), increased population of wild bees (pollinators), improved availability of water in the downstream (demonstrated by improved agriculture/farming practices), that is, overall improvement in the environmental services of the fallow forest following management through creation of CCA.

**Nagaland Environment and Economic Development Project (NEPED)**

10. CIDA-IDRC-Govt of Nagaland funded NEPED project promoted innovative model; of jhum intervention by which the project promoted “one more species of plant” (tree such as Alnus, Gamari, etc) along with the jhum crop during the cropping phase of jhum. These trees, carefully preserved during weeding, subsequently added values to the regenerating fallow forests, which in turn, improved fallow forest protection and management.

11. Such innovative interventions enhanced the jhum cycle and/or prevented cutting of the fallow forest into jhum due to the presence of valuable trees in the jhum fields.

**Others**

12. **Mizoram**: The Young Mizo Association (YMA) has been working with village councils and State Forest & Environment Department to create a number of nature/forest reserves in the state, some of which through JFM mode. Field interactions with community leaders and YMA during the design of IFAD-funded Fostering Climate Resilient Upland Farming System in the North East (FOCUS) project in Mizoram in 2017 showed that many of these reserves are secondary jhum fallow forests including critical catchment areas. Such conservation initiatives could be taken as examples of good fallow management practices, enhancing the ecosystem services, though no studies have been done yet to verify with specific database.

13. **Nagaland**: The indigenous/tribal people in Nagaland has their own history of community forest and nature conservation practices. However, with the initiation of NEPED along with greater awareness of environmental conservation and together with the constant efforts of the State Forest & Environment Department, there are today at least 407 formalised Community Conserved Areas (CCA) based on the study done by TERI in 2015. During the IFAD-funded FOCUS project design in Nagaland in 2017, some of these conservation initiatives were visited and interesting number of CCAs appear to be degraded jhum fallow forests. Bringing such areas under CCAs have improved the fallow forest management practices with rules and regulations, thereby enhancing the local ecosystem services.

**C. Recommendations for actions**

14. **Enlarging and scaling up the CCAs covering jhum fallow forests for enhancing ecosystem services through incentivisation.** Many villages where NERCORMP project had worked and the neighbouring non-project villages, do have ICCA or CCAs are ICCAs are natural and/or modified ecosystems containing significant biodiversity values, ecological services and cultural values, voluntarily conserved by Indigenous peoples and local communities, through customary laws or other effective means (IUCN 2003). CCAs under NERCORMP included ecosystems with minimum to substantial human influence as well as cases of continuation, revival or modification of traditional practices or new initiatives taken up by the communities in the face of new threats such as water scarcity and also opportunities such as promotion of NTFPs and wild edibles for nutrition and income.
tracts of jhum fallow forest that could be brought under CCAs provided incentives are given to the communities for their alternative livelihoods. One strategy for incentivisation could be through innovative JFM by State Forest & Environment Department.

15. **Inter-village transboundary fallow management through creation of CCAs.** To secure more effective ecosystem services through fallow management, an approach would be to demarcate and create inter-village transboundary CCAs covering larger tracts of fallow forests and other degraded forests that are located in the inter-village boundaries. Inter-village partnerships involving 2 or more neighbouring villages for fallow management through conservation or creation of CCA would go a long way in contributing to community conservation initiatives. Again, for such initiatives, the State Forest & Environment Department must play more pro-active roles for which appropriate NGOs or on-going project may be involved. Even some of the on-going or proposed externally-aided projects on NRM & livelihoods such as IFAD-funded FOCUS projects in Nagaland & Mizoram, JICA & Kfw funded projects in different states of NE India could consider adopting strategies that would bring in 2 or more neighbouring villages working towards inter-village forest / jhum fallow conservation and management.

16. **Re-visiting and strengthening CCA rules and regulations with emphasis on benefits-sharing, pro-poor and pro-women:** The community-based rules and regulations for CCA as facilitated by NERCORMP have features of good elements, such as, preventive, prohibitive, punitive, appreciative (giving rewards), extractive (sustainable harvesting), re-generative (emphasis on forest/NTFPs regeneration), facilitative (allowing poorer households to harvest forest products), and explorative (seeking for convergence and partnerships). Recent review of some of the fallow management practices via implementation of CCA rules and regulations showed that some of the CCAs remain enthusiastically prohibitive conservation entities in which everything had been banned. The poor households too have been barred from collecting firewood for household consumption as also wild edibles. In particular, the women found it impractical practice as no one could go to the CCA.

17. **Can the governance of CCAs/Fallow Management Practices be further infused with the principles of ‘good governance’?** As the CCA governance systems are evolving, in some cases, with compelling challenges, it would be good to incorporate the principles of good governance, particularly from the perspectives of inclusive voices and equity in decisions making, have strategic directions but also embracing complexities, develop performance indicators together with accountability.

18. **Effective fallow management/CCA must integrate with homegarden-livestock systems** to secure more effective integrated ecosystem services from the perspectives of shifting cultivators.

19. **Identify and capitalise on the social, economic and ecological drivers of changes that are unique to each community/tribe that contribute to effective fallow management** such as ‘Green Gospel’ as conservation ethos among the Tangkhul Nagas in Ukhrul district of Manipur. Recent case studies of Somadal forest CCA showed that the involvement of the Church in conservation initiatives brought in every section of the community – the elders, youth and women including students – to the ideas and practices of biodiversity / forest / water / environmental conservation actions through the principles of “Green Gospel”.

20. **Capacity building** of community leaders (men and women) including TVIs on governance, performance monitoring and accountability along with various government programmes.

21. **Engaging with Autonomous District Council Authorities** for improved understanding and enabling more effective implementation of existing District Council Forest Acts and Jhum Regulations contributing to improved fallow management through applications and enhanced legal education of the communities and their leaders.

(a). **Jhum Regulations could be implemented better to improve fallow management:**

- Precaution against fire, re-afforestation of jhum land, declaring jhum land as protected forest for environmental services such as water supply and prevention of erosion; onus on the village council (Pawi Autonomous District (Jhum Regulation) Act, 1983).
- Prohibition of Jhum in Certain Areas, examples: 400 m radius of any catchment or water source areas; 50 m either side of state PWD road; avoid forest covered under Sal trees (The Garo Hills District (Jhum) Regulation, 1954).
- No jhum within half a mile of village site (Mikir Hills District (Jhuming) Regulation, 1954).

(b). **District Council Forest Acts implementation to create / demarcate fallow reserves for improved management:**

- Creation/demarcation of Village Forests covering secondary fallow forest in Garo Hills (under Garo Hills District (Forest) Act 1958).
- Demarcation and registration of various types of private forests and community forest, some of which could be jhum fallow forests, under the United Khasi-Jaintia Hills Autonomous District Council (Management and Control of Forest) Act, 1958.

**Keywords:** Transitioning shifting cultivation, ecosystem services, fallow management, community conserved areas
Global Dreams & Paradoxes
In envisioning the global societal key dreams and efforts, it is important to also acknowledge the global paradoxes and tensions as immediate concerns that needed to be addressed. While sustainable economic growth and environmental management is a societal dream, ecological stress; unsustainable production and consumption patterns are a global tension. Also while poverty reduction with sustainable human and social development is a global societal dream, the vulnerability, inequality and exclusion are concerns causing global tension. Similarly while on the hand, an inter-connected one world and a global village is a global dream, on the other hand global tensions such as division, intolerance and conflicts are rising and eluding peace in many places.

The Sustainable Development Goals (SDGs) 2030
Following the Millennium Development Goals (MDGs: 2000-2015), the UN in 2015 adopted Sustainable Development Goals (SDGs) to be achieved by 2030. The SDGs comprises of 17 Goals and 169 targets which is universally applicable to all countries. It aims at tackling the world's most pressing challenges— including ending poverty, and bringing economic prosperity, social inclusion, environmental sustainability and peace and good governance to all countries and all people by 2030.

Universal Key Challenges: Capacity Deficits
The key challenges include ensuring sustained support from political leadership for SDGs, inadequate human & financial resources, limited institutional & human capacities and knowledge deficit.

Roles of Higher Education with regard to SDGs
The role of HEIs is to increase its focus on social responsibility. As public institutions contributing to public good, there is a need in re-defining purpose of HEIs in relation to SDGs. With available resources (physical, human, digital) at their disposal, HEIs can explore opportunities for SDGs.
There is also a need to respond to global/national/local societal challenges & act towards achieving SDGs.

Socially responsible HEI: Expectations
The main expectations from socially responsible HEI focus on adopting the mantle of a ‘civic university’, ensuring that SDGs are included in local research agendas, imparting knowledge, skills & competencies needed to make SDGs a reality, building capacities for SDGs policies/ planning/management and mainstreaming SDGs across curricula through transversal reviews and refinement.

Why HEIs/Universities Engage in SDGs
Both the Universities and SDGs gain through knowledge, learning, demonstration, impact and collaboration.
The SDGs help Universities through knowledge creation by creating increasing demands for SDGs related education and Universities help the SDGs by providing knowledge innovations and solutions to the SDGs. The other areas in which the SDGs can help the Universities are in providing a comprehensive and globally accepted definition of a responsible university, offering a framework for demonstrating impact, creating new funding streams and in giving support for collaboration with new external and internal partners. The Universities can assist the SDGs in areas such as providing knowledge, innovations and solutions to the SDGs, creating current and future SDG implementers, demonstrating how to support, adopt and implement SDGs in governance, operations and culture and in developing cross-sectoral leadership to guide the SDG response.

Higher Education's contribution towards SDGs
The perspective on social responsibility needs to be integrated in all 3 missions of HE, and redefined accordingly. The first is catalyzing learning (instead of just teaching), the second mission is on knowledge generation & mobilization (instead of only research) and the third mission focuses on service as mutual empowerment (instead of a mere charity function). This would imply that instead of doing different things, HEIs are expected to ‘do our core work differently’.

How HEIs can contribute to the SDGs
The first area where the HEIs can contribute to the SDGs is on research that is interdisciplinary and trans disciplinary. Research innovations and solutions are to have local implementations as well as provision for capacity building for research. In terms of educational contribution, HEIs can promote education for and on sustainable development, create jobs for implanting the SDGs and promote capacity building as well as mobilizing young people.
Operations and governance can be aligned with the SDGs and incorporated in the university reporting. HEIs can contribute in external leaderships through public engagement, cross-sectoral dialogue and action, policy development and advocacy and demonstration of commitments.

Re-orienting Higher Education Missions
HEIs can reorient themselves in the area of teaching and learning by revising existing curriculum, introducing new courses and engaging in innovative pedagogical tools. They are also encouraged to frame locally relevant research, build knowledge in partnerships and learn new competencies. They can also serve to promote ‘engaged service’ and service learning through field placements and short-term projects.

Education targets/indicators within other SDGs (with implications for HEIs as per UNESCO)

Health and Well-being
Target 3.7: By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

Gender Equality
Global Indicator: Number of countries with laws and regulations that guarantee women aged 15-49 years access to sexual and reproductive health care, information and education.

Decent Work and Economic Growth
Target 8.6: By 2020 substantially reduce the proportion of youth not in employment, education or training.

Responsible Consumption & Production
Target 12.8: By 2030 ensure that people everywhere have the relevant information and awareness for Sustainable development and lifestyles in harmony with nature.

Climate Change Mitigation
Target 13.3: Improve education, awareness raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning.

Ways forward: Some options/ opportunities
It may be recommended that University leaderships & management can actively encourage mainstreaming of the SDGs in all aspects of its functioning. HEIs are encouraged to initiate a Cell or even a Centre for the SDGs Studies in the universities. Alongside the Global Targets, India has also developed a number of relevant National Targets. Therefore, developing research around the context-specific locally relevant targets that could contribute to knowledge to the society and government is recommended. Resources from government agencies can be looked at for linking with SDGs in HEs.

Finally, a committee of VCs and experts may be formed to deliberate and guide how HEIs could contribute to the SDGs.

How is Learning & Teaching (Education) relevant to the SDGs?
The SDGs recognizes the importance of education to sustainable development through SDG 4. It calls for providing “inclusive and equitable quality education and promoting lifelong learning opportunities for all.” Some of the targets within this goal explicitly call for action by universities, and many others have direct relevance to learning and teaching activities within universities.

SDG targets relating directly to learning & teaching (under Goal 4: Quality Education) – 1
4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university
• 4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship
• 4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations
• 4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.

SDG targets relating directly to learning & teaching (Goal 4: Quality Education) – 2
4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all.
4.b By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries.
4.c By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States.
What can Universities Do?
Universities can provide students with the knowledge, skills, and motivation to understand and address the challenges of the SDGs. They can also empower and mobilise young people, provide in-depth academic or vocational training to implement SDG solutions and enhance opportunities for capacity building of students and professionals from colleges & government departments including from other developing countries to address challenges relating to the SDGs.

How is Research Relevant to the SDGs?
A number of SDG targets directly refer to the need for research-related activities as key components of addressing the SDGs. Many of these targets are considered the ‘means of implementation’ of the SDGs and are relevant to university-based research.

SDG Targets relating directly to Research – 1
Goal 9: Industry, Innovation & Infrastructures
Target 9.5: Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending
Target 9.b: Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities.

SDG Targets relating directly to Research – 2
Goal 2: Zero hunger, 3: good health, 7: affordable and clean energy, 12: responsible consumption and production and 14: Life below water
Targets
SDGs 2.a, 3.b, 7.a, 12.a, refer to the need for scientific research and input on sustainable agriculture, vaccines development, and sustainable consumption and production, respectively. SDGs 14.3, 14.4, 14.5, 14. a refer to the need for scientific input in addressing ocean and fisheries management.
Christian Response to the Emerging Socio-Political Situation: A Reflection from Tripura Perspectives
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(Paper presented in the Northeast Regional Pastoral Conference, Guwahati, 12 Sep, 2018 organized by NECF, Guwahati)

Summary of Talking Points

An overview and context in shaping the socio-political landscape of the state
- Tripura in history and Tripura post-1949 in the context of socio-political contour.
- Two worlds of Tripura: Tribal and Non-Tribal.
- Tribal world views: contested situations – 19 tribes (linguistic and socio-cultural barriers) and belief systems (miniscule Christians versus majority Others or non-Christians)
- Political awakening versus polarization
- Indigenous people/tribal peoples’ movement and aspirations, leading to conflicts and social unrest.
- Emerging current socio-political discourses.
- Socio-political issues are in practice closely linked to socio-economic issues.

Objectives
- Not to present an empirical study; nor quantitative research synthesis.
- Where ‘response actions’ are already happening, exploring on deepening processes.

Methodology
- Research based on secondary information and data.
- Interactions and interviews with diverse range of people (from grassroots to people in position—law makers, administrators, educationists, church leaders and personnel, CSOs, students, etc), both within the state and outside (hailing from the state and who had worked in the state).

Mapping the Socio-Political Landscapes of Tripura
- Emerging from the influences of pan-India socio-political development.
- Communalism and religious fundamentalism – towards a ‘monolithic religion’.
- Issues of marginalised tribal people – both ‘within’ and by the mainstream.
- Political polarisation; selective benefits based on political support-base, and denial of benefits to ‘political opponents’.
- Indirect attack on churches – enumeration of land status where churches are built.
- Discrete settlement of non-tribal people in ‘tribal areas’ through the ‘invisible’ support of a section of administrative machinery.
- Challenges for tribal households to have settled land documents in many places (perceived reasons being due to ignorance, lack of awareness, but also non-cooperation of a section of administrative machinery as a result of underlying tribal-non-tribal divides).
- Tribal land rights under FRA – more of ‘number games’ as political/administrative achievement, rather than provision of land for lasting and sustainable livelihoods.
- Drugs and alcoholism – ‘lost generation’ of young people.
- Domestic violence.
- Poverty and underdevelopment.
- Unemployment and increasing incidence of theft.
- Challenges of access to social benefits / entitlements.
- School drop-outs.
- Different facets of ‘corruption’ and social injustice.
- Internal ‘colonialism’ – powerful few are often engaged for their own benefits, depriving the larger masses particularly the ‘marginal citizens’ (poor with low / no literacy, living in remote locations, living in the outer boundaries of mainstream society with respect to development benefits, etc).

Options for Christian Response
- Some broad fundamentals and conceptual:
  - ‘Church’ – the ‘organised institution’ and ‘body or communion of believers’.
  - ‘Christian’ – believers under different denominations.
  - Drawing from the ‘mandate’ of the Church.
  - Mainstreaming the ‘message’ of the Church.
The political canvas of Christians in Tripura is miniscule; need to develop ‘unity in diversity’ for developing effective Christian response; unfortunately, Christian identity tends to be more on the basis of ‘denomination’, whereas others do not/cannot distinguish the differences.

Developing an effective Christian Forum of different denominations for collective response as Christians; strengthening ecumenism and inter-denominational Christian dialogue.

Promoting programmes and activities to raise social consciousness and responsibilities; human rights; responsible citizenships.

Poverty and Christian response.

Environmental justice and stewardship, ecology and Christian response.

Faith education and faith building.
- Family education, ‘family’ as a small Christian Church; small Christian communities;
- Periodic pastoral letters to the Parishes and Christian Communities from the Pastor of the Church with the aim of faith building and faith education.

Peace building and positive reconciliation.

Personal conversion/reconversion of ordinary Christians.

Strengthening and supporting lay leaderships in the Church and society
- For enhancing insightful knowledge – including personal knowledge, official knowledge and practical knowledge for productive engagements.
- Soliciting passionate involvement of laity people for selfless services.

Strengthening community spirit and practices
- Within the village community
- Parishes, particularly multi-community parishes.

Establishing ‘dialogue clubs’ in the Schools to increase inter-religious unity and co-existence among students studying in the educational institutions of the Church.

Widening educational, health care and development works of the Church.
- Building young Christian entrepreneurs.
- Building ‘New Age Farmers’ among Christian youth and communities.
- Supporting tribal cultures and traditions to strengthen community support systems, indigenous knowledge and faith-formation.

Counselling centres
- In land registration and land title.
- Reclamation of mortgaged land.
- Educate communities to have all the legal documents relating to social and other benefits.

Motivating / encouraging the Christians / faithful to participate in politics.
- Educating faithful why they must participate in politics.
- Local level politics such as Panchayats.
- District council/State/National politics.
- Politics as a mean for liberating people, reconstructions and ensuring social justice.

Motivating the Parish Councils to be more proactive (beyond religious functions and duties)
- Village evangelism.
- Sunday schools.
- Support to local Church workers particularly Catechists and other frontline Church workers through voluntary savings and contributions of Parishioners.
- Working closely with local Youth Groups and Village Councils for community development (including access to government programmes).
- Preventing/addressing domestic violence if any.

Need for writing periodically in the local papers and media, about Christian values and significance of various Christian celebrations from the perspectives of nation building, enhancing human values and social harmony with peace and development (enabling people to know more about Christians and also to invite positive attitudes).

Strengthening the ‘Church’ networking with national/state/local civil society, political power, administrations, law enforcing agencies, development agencies, and alike.

Periodically, Christians should be seen to be alive to national call of duties and citizenships such as by contributing to Chief Minister’s Relief Fund (no matter how small it is), etc.

Concluding remarks
- Learning from Early Church on socio-political and socio-economic discourses and commitments.
- Significance of the discourse; what kinds of ‘message’ are we trying to convey in the contemporary socio-political landscape?
- Are we as Christians serious and ready to come together? Are we capable of preparing a road map of ‘response actions’ for the Church? Do we have the means and resources to carry forward the ‘mandate’ and ‘message’ of the Church in the
contemporary socio-political environment?

- How can our Christian leaders/clergy/pastors together with all ‘believers’ become ‘God’s politicians’ or ‘politicians for God’ (to create disciples, to evangelise people to deeper faith, promote truth, justice, peace, harmony, reconciliation, reconstruction, development, environmental justice, defend the poor/marginalised citizens, and prevent ‘lost generations’)? Fulfilling these missions would be reflection of ‘positive’ Christian response to emerging socio-political and economic situations.

- Need for vigorous engagement of the ‘Church’ with its Christian leaders / people in civil power (wherever they may be – in the legislative assembly, ADC, office, educational institutions, police service, panchayat administration, etc) to enable them become ambassador of the Church to promote spiritual and moral education in all areas of social life through their honesty, integrity, sensitivity, and impartiality. In turn, they reflect the embodiment of ‘Christian responses’ to increasingly divisive socio-political landscapes in our contemporary society including in Tripura.

**Keywords:** Tripura, Christian communities, Christian response, socio-political situations, Church, faith education.
National Conference of Vice-Chancellors and Directors of Higher Education Institutions in India
New Delhi, 26-27 July 2018

Summary
The key objective of the conference highlighted on the importance of research and innovation and digital initiatives undertaken by Universities and also focused on teacher training and capacity building. This National Conference was held in the presence of Shri Pankaj Javadekar, Minister HRD, GoI, Dr S P Singh, MoS HRD and Shri R Subrahmanyan, Secretary (ME) MHRD and Vice Chancellors of Central, State and Private Universities.

The main issues were discussed by participating Universities and observations were made by the Ministry of Human Resource Development. The discussions were based on the following key areas:

a) Lack of innovation in Higher Educational Institutions (HEIs)
b) Framework content in HEIs
c) Improving the quality of PhDs in the country
d) Quality of Research
e) Publishing of Journals and removing substandard journals from the list of approved journals
f) Measures to curb Plagiarism
g) Teaching methodology being practiced in colleges and Universities
h) Non-revision of Curriculum and evaluation methods
i) The pattern of recruitment of Assistant Professors and review of API
j) Teachers in HEIs should undergo the induction programme and annual refreshers training programme which aims to orient them with the latest and emerging trends in their respective discipline.
k) Associate Professors and Professors being active in administration which diverted their focus and dedication in Research and guiding students/scholars.
l) Research Methodology
m) The relevancy of applicability policies of one size fits all
n) Collaboration with industries both in curriculum and internship
o) Countless permissions laid down by Regulatory bodies
p) Limited applicability of Research resources for Private Universities

After the discussion, a Declaration was made by the Ministry for adoption of best practices by Universities through the Availability of Impacting Research Innovation and Technology (IMPRINT) to private universities, Global Initiatives of Academic Network (GIAN), Focus on Advanced Research in science, Plagiarism interface, SWAYAM including NPTEL and Virtual Labs, Smart Campus, Swachhta programs, Accessibility of E Shoudh Sindu and Incubation centres in Universities. The MHRD, UGC and Universities would be responsible for following up on these actions.

Abstract

Background: Nutritional deficiencies and transition of diet are the major health problem that seems to be arising in both rural and tribal settings. Studies revealed that the health status of Indigenous People (IP) is drastically degrading due to a change in the environment and their lifestyle brought about by modernisation. IP are often regarded as nature’s caretaker and keeper as they have a closed bond with the environment. Indigenous youth are influence by this change and are drawn towards transition from dietary habits to lifestyle, thus having an impact on their health and nutritional status and a lost in upholding the traditional knowledge system for the usage of indigenous food as a therapeutic purpose which is orally transcribe from generation to generation. Addressing the health and nutritional needs of tribal population is important, as a close association is found between the tribal ecosystem and their health status. An understanding of the traditional food system combined with nutrients analysis will help in finding solutions and strategies to tap the health problems associated with nutrition for the future.

Objectives: Thus the study was taken to assess the consumption pattern of traditional food among the Khasi youth of Mylliem Block, East Khasi Hills District, Meghalaya and to document on the therapeutic purpose of indigenous food.

Materials and Methods: A cross sectional study was conducted in four educational institutions to elicit information on the consumption patterns of indigenous food through the use of a standardised self administered food frequency questionnaire, and on the therapeutic purpose of indigenous food. A total of one hundred and sixty five respondents participated in the study comprising of ninety two Khasi girls and seventy three Khasi boys from standard IX & X.

Results: Analysis was done on the consumption pattern of traditional food and on the therapeutic purpose of indigenous food. The study reveals that the food choice of the respondents is mostly influence by factors like taste, accessibility and convenience. Majority had knowledge on the usage of food as a therapeutic purpose which was orally transcribe and practice by their parents and ancestors. Thus emphasis should be given on creating awareness on the nutritional benefits of indigenous food and to channelize the traditional methods of using indigenous food as a therapeutic for ailments which could help in breaking the vicious cycle of malnutrition.

Keywords: Dietary practices, indigenous people, indigenous food, traditional knowledge, therapeutic purpose, nutritional deficiencies

A Study on the Commonest Gene Mutations Associated with Drug Resistance in tuberculosis in East Khasi Hills District Meghalaya

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(Poster presented in the ‘SAS International Conference and Awards 2019’ Vivanta by Taj Hotel, Guwahati, Assam. 9 June, 2019)

Abstract

Background: The infection and spread of multidrug resistant-tuberculosis (MDR-TB) is due to mutations in genes or promoter region of the genes activating the drug or encoding the drug targets in Mycobacterium tuberculosis and this led to amplification and spread of MDR-TB in the community. The objective of this study is to identify and characterize the commonest gene mutations using a rapid molecular technique the Line Probe Assay (LPA) among drug resistant cases in the state of Meghalaya. Materials and Methods: We conducted a retrospective analysis of LPA assay results of suspected drug resistant TB patients that reported between the years 2013 to 2017 at a referral hospital from eight district TB centers in the state of Meghalaya, in north eastern part of India.

Results: A total of 1,365 clinically suspected drug resistant TB cases were reported at the referral hospital in Shillong. Of these, 362(78.3%) were MDR-TB. The commonest genes where mutations were noted were in rpoB and katG genes (354 (72.2%) cases), common missing wild type probes were rpoB WT8 and katG WT (290(59.1%) cases) and commonest codons were 530 & 533 in rpoB gene, and 315 in katG gene (187(38.1%) cases).Commonest mutation bands developed were for rpoB MUT3 and katG MUT1 (283(57.7%) cases) and most frequent co-occurring mutations were S531L (in rpoB) and S315T (in katG) (279 (56.9%) cases).East Khasi Hills District had more drug resistant TB cases than all other districts in the state, with 289(58.9%) cases. Commonest age groups with resistance patterns were 18-23 years (76 (15.5%)), 24-29 years (41(8.3%) and 30-35 years (39 (7.9%). Males developed more resistance patterns than females (278 (56.7%).The turn-around time for diagnosis by LPA is 72 hours.

Conclusion: Trend of MDR-TB cases in Meghalaya was seen to decrease gradually from 2013-2017 if the diagnosis is expedited by LPA.

Keywords: Gene mutations, Line Probe Assay
Internal Quality Control for Urea and creatinine in Cobs 6000 Analysers Using Serum Sample
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Abstract
Introduction: Quality control is an integral part of the analytical laboratory to obtain a precise, accurate result and also to reduce errors. Many national level laboratories utilize internal and external quality control methods for this purpose. The commercially available quality materials used for assessing daily internal quality control (IQC) is expensive, and hence in this study, an attempt was made to know the usefulness of serum samples as a quality control material.

Objective: To study IQC for urea and creatinine in Cobs 6000 analyser using serum sample.

Materials and Method: The study was conducted in the Clinical Biochemistry Laboratory, Kasturba Hospital, Manipal Academy of Higher Education, Manipal. IQC for estimation of urea and creatinine was assessed using Cobs 6000-1 and compared with Cobs 6000-2 autoanlyser. Thirty anonymised fresh serum samples and quality control material from Biorad with two level were used and compared between two analysers. Bland Altman agreement statistical analysis was applied for evaluating comparability using SPSS version 15.

Result: Quality control materials with two levels and serum samples showed good concordance for most of the urea and creatinine values, and all values were within 2SD. Mean difference for estimation of urea with serum sample was found to be 0.03 with 95% limit of agreement from -2.67 to 2.73. Mean difference for estimation of creatinine with serum sample was found to be 0.012 with 95% limit of agreement from 0.235 to 0.26.

Conclusion: Our study showed that the fresh serum samples could be used as an IQC when control materials are not available or available one is deteriorated. An important implication of the study findings is that using serum samples for IQC will appreciably lower the cost for validation of the accuracy of the autoanalysers.

Keywords: Bland altman, quality control, quality assurance, quality control material, reference material.

Subclinical Vitamin A deficiency in children under age 5 years (pre-school) in rural Meghalaya- A Preliminary report
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Abstract
Background: Vitamin A deficiency (VAD) is a major preventable public health problem. Prevalence of VAD in pre-school children was 5.7 percent in India. Vitamin A deficiency continues to be one of the major nutritional problems in India even after the implementation of national vitamin A prophylaxis programme for more than four decades. The aim of the study is to assess the prevalence of vitamin A deficiency among rural pre-school children of different districts in the Khasi-Jaintia Hills. Methods: A community based cross-sectional study where children between 1-5 years of age were randomly recruited for this study. This was carried out by adopting a multi-stage stratified random sampling procedure. Blood sample was collected from each child. Assessment included serum retinol was assessed by HPLC and a questionnaire completed providing for family information and nutritional status. Results: Clinical examination of 378 children to screen for clinical VAD reveal that the following Bitot’s spot, congenital ptosis, Dot opacity, conjunctivitis, Lid blepharitis, Squint eye and Photophobic were common among the children. A sub total of 129 children free from any clinical signs of VAD were recruited for assessment of subclinical VAD. The above samples revealed a 47.1 % prevalence of low serum retinol level with a cut-off of ≥ 20 μg/dl. A Knowledge Attitude and Practices (KAP) based questionnaire revealed that 44.8 %were familiar with vitamin A deficiency but 58.3 % were not aware of the cause. Conclusion: A significant percentage of children had sub clinical VAD in the rural areas of different districts in the Khasi, Jaintia and Ri-Bhoi of Meghalaya. Low vitamin A status remains a nutritional problem in the Khasi and Jaintia Hills. The targeted group in this study were preschoolers, from rural areas and majority had parents with poor education. It is necessary to enhance the parental knowledge on the effects of vitamin A deficiency diseases in order to successfully tackle this problem.

Keywords: Vitamin A deficiency, serum retinol, nutritional status
Diet of Pre-School Children with Moderate Acute Malnutrition (MAM) in Umling Block, Ri Bhoi District, Meghalaya
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(Paper presented in the National Symposium on ‘Intellectual Property Rights in the context of Traditional Knowledge and Biodiversity’, MLCU, Shillong, 6-7 December, 2018)

Abstract
Various surveys such as the National Family Health Survey 4 (2016) have shown a high prevalence of malnutrition among pre-school children in Meghalaya. It is important to consider the role of dietary practices among vulnerable populations in the state. The purpose of this study was to evaluate the diets of preschool children with moderate acute malnutrition (MAM) and to ascertain the factors associated with malnutrition. The study was conducted in Umling Block, Ri Bhoi District, Meghalaya. Twenty caretakers of children with moderate acute malnutrition (MAM) were interviewed after purposive sampling. The dietary practices of children with MAM were determined by the 24 hour dietary recall method and by a food frequency questionnaire. A standardized semi-structured questionnaire was used to ascertain local contextual and other possible related factors. The results of the study showed that the children with MAM consumed very low intake of macro and micro nutrients when compared to the ICMR (Indian Council of Medical Research) recommended dietary intake (2010). It was also found that the children as young as one year of age consumed tea on a daily basis. From the food frequency questionnaire, it was found that rice was eaten daily of which half of the families said that they gave unpolished rice to their children during certain months of the area. Other foods such as powdered milk were provided by the Angandi centre. Whole milk was consumed by 22% of the children daily. Some families did not want to give powdered milk to their children because it leads to “daitkpoh” or “nieuwkpoh” which means diarrhea. Families also said that fruits and vegetables were given when they were able to afford it. Families do not encourage their children to consume traditional foods as they were considered less nutritious since most of these foods are sour and spicy. Many children are on prolonged breastfeeding. The decline of the use of traditional diets and kitchen is apparent. Other economic and social factors also play a role.

Keywords: Moderate acute malnutrition, 24 hours dietary recall method, food frequency, nutrients.

Anthropometric Assessment of Nutritional Status of Indigenous Khasi Youth, Mylliem Block, Meghalaya
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Abstract
Background: Indigenous people (IP) are often regarded as nature’s caretaker and keeper as they have a close bond with the environment. Studies revealed that the health status of IP is drastically degrading due to a change in the environment and their lifestyle brought about by modernisation. Indigenous youth are influence by this change and are drawn towards transition from dietary habits to lifestyle, thus having an impact on their nutritional status leading to Malnutrition. Addressing to the nutritional needs of indigenous youth could be an important step towards breaking the vicious cycle of intergenerational malnutrition.

Anthropometric, a paramount indicator can be used widely to determine the Nutritional status of indigenous youth by assessing their growth and development through Anthropometric assessment method.

Objectives: Thus the study was taken to assess the nutritional status and to identify indigenous Khasi youth who are malnourished by using anthropometric parameters: height, weight and Body Mass Index as an indices.

Materials and Methods: A cross sectional study was conducted in thirty four educational institutions (both private and Government aided) located at Mylliem Block, Meghalaya. A total of 946 comprising of 563 Khasi girls and 383 Khasi boys were anthropometrically examined by using standardised tools (Stadiometer and Standard weighing scales) from standard VIII to XII, aged 13-19 years. The Blood pressure and dietary habit were also collected.

Results: Analysis was done using the nutritional status indices to determine the nutritional status of the Khasi youth. The prevalence of underweight combining all the age varied between boys and girls as they aged. Overweight was found to be more prevalent among girls when compared with boys. Both genders reported to have normal blood pressure value. However, dietary diversity is found to be one of the compounding factors associated with Nutritional status.

Keywords: Nutritional Status, malnutrition, BMI and indigenous.
Anthropometry to determine moderate and severe acute malnutrition in under five years children in Umling Block, Ri Bhoi District, Meghalaya
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Abstract
Five of the leading cause of mortality and morbidity of under five years old children around the world is malnutrition (Liu et al., 2012; Black et al., 2008). Data such as the National Family Health Survey-4 (2016) and the Rapid Survey on Children (2014) indicate that the prevalence of malnutrition is still alarming in the country.
The baseline study was conducted in seven villages in Umling Block. Anthropometric assessment consisting of measurement of height, weight and mid-upper arm circumference (MUAC) for 357 children below the age of 5 years old was done. The identification of Moderate acute malnutrition or ‘wasting’ was as per the z score of the weight- for- length/ height of the World Health Organization (WHO, 2006). Child Growth standards or a MUAC of 11.5 cm to 12.5 cm. From the 357 children, 193 are female and 164 are male. The results of the study showed that 7 percent of the children were moderate acute malnourished, 0.3 percent were moderate acute malnourish but with congenital heart disease, 0.3 percent were moderate acute malnourish but were treated from severe acute malnutrition and 0.3 percent were severe acute malnourished. The study also showed that the z - score of the weight-for-length/ height is more sensitive in identification of moderate acute malnutrition than MUAC.

Keywords: Moderate acute malnutrition, anthropometric assessment, wasting, MUAC, z – score weight for length/ height.

DEPARTMENT OF ENGLISH AND COMMUNICATION

Precision in communication through English for Specific Purposes
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(Article published in ‘International Journal of English Language, Literature in Humanities’, April 2019, Volume 7, Issue 4, ISSN number 2321-7065.)

Abstract
Starting from the literature of English to the developments of language in the form of ways to enhance the four skills of communication, research has been manifold and touched upon various problems which directly meet the needs of people. One such trend which is ongoing since the 1960’s and accelerating its pace since the start of the 21st century is the English for specific purposes or ESP. ESP provides the need of the hour where ornamental, fancy and artistic writing have been replaced with precise, methodical and meticulous writing. The present paper deals with ESP: Its past, present and where is it likely to stand in the coming years. A special reference to the use of English in professions like engineering and management for better understanding and comprehension is also taken into account.

Keywords: English for specific purposes, personality development, grooming, ESP practitioner

Syllable structure in Khasi with special reference to Shella
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Abstract
‘Khasi’ is a term which stands for both the tribe and the language spoken by the tribe. Khasi, belong to Monkhmer language of Austro-Asiatic language family and is mainly spoken by people inhabited in the Khasi and Jaintia Hills of Meghalaya. Khasi has a good deal of dialect variations which are mainly attributed to regional location. This paper focuses on the Syllable structure of Khasi with special reference to Shella, one of the varieties of Khasi language spoken in the East Khasi Hills of Meghalaya. This paper is divided into three sections; (i) Definition of a syllable (ii) Types of syllables: (a) Open and Close (b) Heavy and Light (iii) and Syllabic Structures: (a) Monosyllables (b) Disyllables (c) Trisyllables

Keywords: Austro-Asiatic, syllable, monosyllable, disyllable, trisyllable

Reinventing a Genre: Feminism and the new wave of Science Fiction
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(Article published in ‘International Journal of English Language, Literature in Humanities’, April 2019, Volume 7, Issue 4, ISSN number 2321-7065.)

Abstract
Science fiction, for a long time, had been viewed as belonging to the masculine domain. For the better part of the twentieth century, science fiction was dominated by male writers writing for a mostly male audience. Ironically, it is generally acknowledged that the first book of science fiction was by Mary Shelley, a female writer, and her novel Frankenstein had powerful feminist themes. Early women writers would use masculine pseudonyms to avoid prejudice and hardly anyone attained the popularity and success that Shelley had achieved. This was until the cultural revolution of the 1960s. Termed as the New Wave, the themes and focus of the science fiction of the period evolved with the radical mood to become an instrument of what became known as the Counterculture of the 60s. It is during this age that Second Wave Feminism started gaining power and science fiction, a genre that had become dominated by men, suddenly sees the emergence of a number of successful female writers such as Joanna
Science Fiction and the Victorian Age: A Tradition of Social Critique and Satire
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(Article published in ‘NEW ACADEMIA: An International Journal of English Language, Literature and Literary Theory’, April 2019, Volume 8, Issue 2, ISSN 2347-2073)

Abstract
The Victorian age has long been recognized as an age that produced classic authors such as Charles Dickens, William Thackeray, the Bronte sisters and George Eliot. The many social changes and upheavals of the time fostered the growth of great literary works. It is also the age that gave birth to an important literary genre – science fiction. Though the term science fiction was not invented by then, critics and scholars alike agree that the genre was born during this age and it is also generally accepted that the first book of science fiction is Mary Shelley’s Frankenstein. Initially relegated to realm of fantasy, science fiction was not generally credited as being serious literature and ignored as pulp fiction for many years. However, this is no longer the case as new scholarship reveals that science fiction has more to offer than meets the eye. Writers like Darko Suvin refer to science fiction as a literature of “cognitive estrangement”, a literature that employs the technique of placing the reader in an unfamiliar or different world. Through this, the reader can view the real world from a fresh perspective and recognise its failings and shortcomings. Science fiction is often spoken of as a genre that critiques and satirises contemporary society. This tradition has started from its very inception in the Victorian age as the earliest writers of the genre created a new way of writing literature in order to comprehensively capture the ethos of the period and the social changes that occur along with the rapid advancements in science and technology.

Keywords: Victorian age, science fiction, social critique, satire, cognitive estrangement, imperialism, colonization

Reflective Teaching: A medium to teacher development
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(Article published in ‘International Journal of English Language, Literature in Humanities’, April 2019, Volume 7, Issue 4, ISSN number 2321-7065.)

Abstract
This paper will attempt to look at the role of teachers not only in the classroom but also beyond. As teachers, we go to the classroom with the objective of disseminating knowledge and information to the students, and we wish or rather, want our students to accept or absorb whatever we teach. But is our approach always successful? Do all students really ‘accept’ or ‘absorb’ what is being taught? There are many questions that we as teachers can ask ourselves. However, in the bustling profession that we are in, we sometimes overlook and tend to forget how even the most simple reflection can help us understand our students better and help them achieve certain goals in life.

Keywords: Reflective teaching, teachers, students, process of reflection, strategies in reflective teaching

Content and Language Integrated Learning (CLIL): A need to enhance English Language Learning in the 21st century
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Abstract
Content and Language Integrated learning (CLIL) serves to be one of the best tools available in the English teaching curriculum in the present century. It has not been extensively used as a method of language teaching in India. There are various concerns pertaining to the healthy use of CLIL in the English and communication classrooms. Western countries have used this method and have achieved good results. With a spurge of colleges offering professional courses ranging from medicine to fields of engineering in India, it is definitely a time to evaluate the success of the English Language learning curriculum in India. It is observed that no matter how good a student is in their subject of interest, if the basics of English are not imbibed, these students my not fare very well in their recruitment process which includes group discussions and most importantly interviews. This paper touches the current trend of CLIL and if it is a necessity in the present curriculum of private universities offering professional courses in Shillong, Meghalaya.

Keywords: CLIL, language skills, professional courses

Relevance of Tribal Spirit-Consciousness for the Tribal Christians in North East India
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Abstract
Belief in spirits is an important element of all religions of the world. The indigenous peoples or tribes of North East India have their indigenous religions being passed down orally from one generation to the other. The tribes believe...
Values Education for Promotion of Peace among the Tribals in North East India
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(Presented at the International Conference on ‘Mahatma Gandhi's Vision and Contemporary Political Leadership in North East India’, at University of Science and Technology, Meghalaya, 5-6 October 2018.)

Abstract
Peace is both a concept and a reality which we experience in life. Everyone loves peace and every society longs for peace. Yet peace seems to be a distant dream. The North East India, comprised of eight states, is made up of multi-ethnic groups. The people in the region have been experiencing various conflicts. While some conflicts have historical, economic, and political causes, many conflicts in the society today are due to negligence or ignorance of core human values like respect, honesty, kindness, fairness, forgiveness, and morality. The core human values are the foundations for harmonious coexistence and peace in the society. Values education, therefore, must be imparted formally or informally through various means. The writer argues that values education will help create and promote peace in the society.
Keywords: Values, value education, peace, tribal

DEPARTMENT OF ENVIRONMENT & TRADITIONAL ECOSYSTEM

Ethnomedicinal Plants of Sumi Nagas in Zunheboto District, Nagaland, Northeast India
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Abstract
Ethnomedicine is a term that refers to a wide range of healthcare systems/structures, practices, beliefs and therapeutic techniques that arise from indigenous cultural development. The word Ethnomedicine is sometimes used as a synonym for traditional medicine. It is mostly preserved only by oral tradition. The study was conducted in the Sumi-inhabited villages of Zunheboto district- Askhomi, Khrimtomi, Rotomi and Philimi. The survey derived information on 50 medicinal plants used by the Sumi Nagas in Zunheboto district all catering to different diseases and ailments.
Keywords: Ethnomedicine, Sumi Naga, Zunheboto, Nagaland

Spectrum of Community Nature Conservation Traditions and Emerging Initiatives in Diverse Community Conserved Areas among the Tribes in Northeast India
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(Paper presented in the ‘Northeast Green Summit’, Shillong, 24 October, 2018, organised by MSPCB & IBSD, Govt of Meghalaya, Shillong; DBT, Govt of India & Vibgyor Media Solutions, Guwahati)

Abstract
The socio-historical processes and practices of nature conservation, protecting their forest resources and other natural landscapes, based on homogenous village society that supports collective needs and interest, had been the hallmarks of most of the tribal communities living in the upland and hilly areas of Northeast India. Traditional community practices of nature conservation, particularly forest conservation, stemmed from various features of traditional socio-religious to livelihoods systems. Some of these examples could be described as: (a) conservation based on traditional beliefs systems (such as sacred groves or Law Kynntang among the Khasis in Meghalaya); (b) conservation based on the practical needs and livelihoods systems of the villages (such as village safety and supply forest reserves in Mizoram; ‘asha vari’ among the Jamatias of Tripura; village forest reserves for jhum and other forest produces among the jhum-practicing tribal communities; traditional grazing forest reserves for mithun among the Nagas, Kukis and a section of Arunachal Pradesh tribal communities); (c) conservation based on traditional cultivation or agroforestry practices (such as alder-based jhum system in Nagaland; Apatani agroforestry

SECTION I

in the existence of many benevolent and malevolent spirits around them. They live spirit-conscious lives for they believe that spirits, though not visible, are around them watching what they do and how they live. The introduction of the British colonial rule in the 19th century, and the process of Christianization and modernization during the 19th and 20th centuries, however, had serious effects on the indigenous religions of the region. In the course of time, many tribes have been completely Christianized thereby many tribal religions have become themes of the past. Nevertheless, some tribal religions, either in the old form or reformed, are still being practiced among some tribes in the region. In this article, the writer argues that the tradition of tribal spirit-consciousness has declined among the tribal Christians for different factors. As much as spirit-consciousness is also a part of the Christian tradition, the writer argues that the tribal spirit-consciousness is not only compatible with the Christian faith but also relevant for tribal Christians in the region.
Keywords: Tribal, tribal religion, spirit, spirit-consciousness and Christianity
practices in Arunachal Pradesh; ‘home garden’ agroforestry among various tribes in NE India.

Along with these traditional practices of nature and forest conservation, in recent years there had also been resurgence and rejuvenation of various initiatives for nature and forest conservation among many rural and tribal communities of Northeast India. These new-age conservation movements have been triggered by various government and non-governmental initiatives that could be categorized as: (a) conservation based on participatory partnership of government and people (such as Anchal & Apna Van in Arunachal Pradesh; JFM-based conservation models in various states of NE India); (b) conservation based on environmental NGOs-initiatives and social organisations (such as Chakrasila wildlife sanctuary in Assam, Kharsati nature reserves in Meghalaya, Young Mizo Association (YMA) forest reserves in Mizoram, Tragopan sanctuary and nature reserves in Khonoma village in Nagaland, and numerous community nature / wildlife reserves in various villages of Nagaland and other states in NE India); and (c) conservation based on externally-aided government projects (such as Nagaland Environment Protection and Economic Development (NEPED)’s village reserves through tree farming in Nagaland, Community Conserved Areas or CCAs promoted by North Eastern Region Community Resource Management Project for Upland Areas (NERCORMP) - I & II [funded by International Fund for Agricultural Development (IFAD & GoI) in Assam, Manipur & Meghalaya; NERCORMP-III [funded by GoI] in Arunachal Pradesh & Manipur. It may also be noted that other bilateral/multilateral externally-aided projects such as Kfw-GIZ-supported Indo-German Development Cooperation Project (IGDCP) in Tripura, Japan International Cooperation Agency (JICA) -funded forestry development projects in Mizoram, Sikkim and Tripura, World Bank funded North East Rural Livelihoods Project (NERLP) in Mizoram, Nagaland, Sikkim and Tripura too have contributed or are contributing in deepening the practices of nature conservation including forest conservation among various rural and tribal communities of the region.

Many of the traditional nature and forest conservation practices continue to demonstrate examples of hopeful stories among many tribal communities in Northeast India, reflecting the traditional ecological knowledge, practical approaches to resilience and equitable cooperation of the communities for social, economic and ecological benefits. Recent initiatives of nature conservation too are showing encouraging results of success indicators where there are appropriate and guided interventions and community-led strategies taken up by the government, NGOs and externally-aided projects with support from key community leaders and change makers. Nature conservation initiatives have been taken up with much enthusiasm by the communities thanks to increasing awareness on environmental values of nature conservation together with practical adverse experiences of lack of such conservation practices by growing number of upland communities (such as drying up of natural springs with severe problems of drinking water, unregulated expansion of monoculture plantations of cash/fruit crops but without much economic returns, other climate change related effects, etc).

While the underlying issues and challenges of nature conservation would be generally addressed, the present paper focuses on the success stories and practical challenges of NERCORMP (a joint project of IFAD & GoI) in promoting community biodiversity conservation initiatives through community conserved areas (CCAs). The CCAs are diverse sizes of nature/landscape and forest conservation areas that are inclusive of traditional degraded village forest, jhumscapes, catchment wilderness, NTFP reserves and riverine stretches under community control and management. The paper attempts to outlines the experiences and lessons learned from the interventions of externally-funded NERCORMP-IFAD-GoI project in the resurgence and revitalization of community-led nature / forest conservation and management among diverse tribes in Arunachal Pradesh, Assam, Manipur and Meghalaya. Various management challenges encountered by the communities in the processes of community forest and river conservation initiatives in meeting peoples’ expectations of economic and livelihoods benefits from such conservation practices are also discussed, along with emerging roles of the youth, women and village councils in conservation practices and envisioning for the future. Evolution of community-based conservation rules and regulations have also been sketched and analyzed, with suggested prospects for improvement with opportunities for further learning, adaptation and replication for scaling-up the nature conservation movement in Northeast India.

Keywords: Forest conservation, community conserved areas, tribal people, Northeast India, externally-aided projects.

Birds as Bioindicators of Traditional Weather Forecasting among the Sumi Tribe of Nagaland, India

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Abstract

Aims: This study was undertaken to document the birds that act as bioindicators of weather forecasting among the Sumi tribe of Nagaland, India.

Study Design: The study was carried out using a qualitative design.

Place and Duration of Study: The study was carried out in 4 villages of the Zunheboto district- Shiyepu, Sukhalu, Natha old and Natha new. It was conducted for a period of 2 years, i.e., 2016-2018.

Methodology: Convenient and snowball sampling were used. Information was gathered from 200 respondents, through In-depth interviews and focus group discussions, targeting elders (women and men) above 40 years of age. The respondents included elders, farmers, hunters, folk tellers and bards who also shared their stories from different events of observation and decades of experience. Questionnaires were prepared and administered by the researcher while a topic guide was also used for the focus group discussions.

Results: The study listed few birds and their significance in weather prediction by the Sumi tribe of Nagaland, India. The singing of cuckoo (Cuculidae) means it is time to start
Ethno ecological knowledge of the Sumi tribe of Nagaland: Insects as bio-indicators of weather prediction
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Abstract
The Sumi Nagas have been practicing weather prediction through the behaviour of animal acting as an indicator. Similarly, prediction with the help of insect indicators were sought to be investigated and documented. This study seeks to identify and document the insect indicators through their behaviour, in predicting weather phenomena among the Sumi Nagas of Nagaland. The study was conducted in 4 villages of Zunheboto district- Sukhalu, Shiyepu, Natha Old and Natha New. Qualitative design of study was involved and data was collected through in-depth interview (IDI) and focus group discussion (FGD). Prior informed consent was taken before the process of data collection. Convenient and snowball sampling were used for the study – informants including elders, farmers, folk tellers and hunters, were selected from each village and information was collected from them. Adhering to the fact that, elders are the real custodians of traditional knowledge, all the informants both women and men were above 40 years of age. The study showcases a rich documentation of the insect indicators among the communities which they have used since time immemorial until now. This study was a tedious one as the elders were hesitant to share their knowledge and thus, rapport building was much developed to gain their trust making them understand that the study’s sole purpose was for documentation and not for other means. The study identified, listed and documented 20 (twenty) insects which were aiding the Sumi tribe of Zunheboto district for predicting their weather even in present times. However, in the event of urbanization and development, this traditional knowledge has often been sidelined and in addition, the younger generation do not pay much attention to these age-old traditions. The study also entails urgent need for documentation of traditional knowledge before it completely vanishes.

Keywords: Ethno ecological knowledge, weather forecasting, Sumi, Nagaland, bio-indicators

Preliminary studies on the agri-forest food biodiversity of selected tribal communities of Northeast India: Changing landscape and emerging options
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(Paper presented in the National Symposium on ‘Intellectual Property Rights in the context of Traditional Knowledge and Biodiversity’, MLCU, Shillong, 6-7 December, 2018)

Abstract
Food and Foods systems are the integral part of development history and culture among the tribal communities of Northeast India. Their traditional foods come from their immediate home ranges such as forests and wilderness, farmland, rangeland, home gardens, rivers and streams and other aquatic bodies. All of these landscapes have profound historical linkages to developing knowledge systems around food biodiversity and food systems of the communities. Recent preliminary studies among the tribal communities of Karbi Anglong district and Dima Hasora district in Assam and among the Nocte and Wangdho tribes in Tirap district in Arunachal Pradesh revealed changing landscapes in their food biodiversity and food systems. The fact that these communities are increasingly depending foods from the markets that are not local foods (that is foods not produced locally) are signs that signals changing foods and food systems of the traditional communities. In the long run, such changing food landscapes could seriously impact the tribal food systems.

Focused group discussion using recall method revealed the increasing percentage of reduction of foods from jhum and forest as compared to 10 to 20 years ago among these communities. If the trends of dependency on market foods and processed foods continue, the diet diversity of traditional tribal foods would be increasingly in danger of being diluted. The rich bio-cultural diversity of the tribal communities particularly the food biodiversity of the tribal communities would be in danger of being forgotten and lost. At stake would be the eradication of generations of traditional knowledge, passed on orally within the comminutes from parents to children, on various food biodiversity and their health and nutrition benefits of locally cultivated food crops from the farmland and wild edibles from the forest and wilderness landscape.

IFAD-funded NERCORMP project through the community institutions such as the Natural Resource Management Groups (NaRMGs) and women self-help groups (SHGs) have been working among these communities for improved livelihoods, increased sources of income for enhanced food and nutritional security. The project interventions include promotion of community conservation areas (CCA) which are judicious conservation and management of degraded village forest and/or various ages of jhum fallow forests rich with wild diverse food plants and wild edibles to secure ‘forest food biodiversity’ and improved jhum cultivation and/or jhum modifications and home garden development for promotion and conservation of agri-food biodiversity. Added to the improved food biodiversity and food systems the projects also focused on aspects of food consumption through NEAT fests and local level food festivals to generate and spread awareness and education on the values of local food biodiversity and importance of traditional food systems. The present paper delves on the preliminary findings on emerging community initiatives with encouraging acceptance
and knowledge on the value of the local, native and secure food biodiversity. Many communities are gradually back to understanding that the more they can strengthen their local food systems by involving all stakeholders, the less they will have dependency on unhealthy external food products, but would also ensure the survival of their bio-cultural identity through restoration of food biodiversity and food systems.

**Keywords:** Food biodiversity, Northeast India, changing trends

This paper is based on the rapid field studies undertaken during the Project Completion Review of IFAD-funded NERCORMP II project in Assam during 2017 and Monitoring Review of NERCORMP III project in Arunachal Pradesh during 2018. The author acknowledges with thanks the data shared by NERCORMP for this paper.

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**Tribes, Biodiversity and Traditional Knowledge: Lessons from Three Different Community Conservation Experiences in Northeast India**

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(Paper presented in the National Symposium on ‘Intellectual Property Rights in the context of Traditional Knowledge and Biodiversity’, MLCU, Shillong, 6-7 December, 2018)

**Abstract**

The tribes in Northeast India had historically evolved in close proximity to their natural environment, thereby, developing almost tribe-specific unique socio-cultural and livelihoods traditions based on available resources around their home territory. Such relationships with nature provided them conservation practices resulting in rich traditional time-tested field and practical knowledge on their local biodiversity. The traditional nature and biodiversity conservation practices, as well as recent initiatives through government and civil society organizations are stories of community foresights and practical opportunities. While many of the traditional conservation practices are the footprints of traditional ecological knowledge of the communities, the recent conservation initiatives are similarly reflections of practical approaches to resilience and equitable cooperation of the communities for social, economic and ecological benefits. The present paper deals with examples from three different community experiences of conservation practices.

(a) The **first** is a traditional forest biodiversity conservation in the form of sacred grove as experienced by the communities at Mawphlang in East Khasi Hills, Meghalaya;
(b) The **second** is an externally-aided project-induced conservation experience of community forest in the form of a Community Conserved Area (CCA) from Somdall village in Ukhrul district of Manipur; and,
(c) the **third** one, which is also an externally-aided project-induced conservation experience, but for protection and conservation of river for aquatic biodiversity in Rohnah village in South-West Khasi Hills district in Meghalaya.

Each of the community conservation experiences provide lessons from their respective perspectives, which the paper attempts to analyze. Broadly, the study emerges to conclude with some key lessons such as: (a) Community-based forest and biodiversity management as a potential driver for sustainable livelihoods development through value creations for rural and tribal communities; (b) Forest conservation practices aimed at enhancing biodiversity of forests and generating alternative livelihoods particularly from Non-Timber Forest Products (NTFPs) can best be achieved through the active involvement of women and youth in conservation activities under the overall aegis of the village institutions; (c) Continued dialogue and convergence between rural communities and government institutions on community conservation initiatives are vital to enabling conservation practices for economic and ecological security; and (d) Social convergence with nurturing of social soft skills are the drivers of success factors in both traditional and emerging conservation initiatives.

**Keywords:** Biodiversity, traditional knowledge, community conserved area, sacred grove, NTFP

*These experiences were part of the study undertaken while the author was working with IFAD India Country Office, New Delhi.

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**Parkia roxburghii G. Don. – A Potential Candidate for Geographical Indication from Northeast India**

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(Paper presented in the National Symposium on ‘Intellectual Property Rights in the context of Traditional Knowledge and Biodiversity’, MLCU, Shillong, 6-7 December, 2018)

**Abstract**

After the Article 22.1 of the TRIPS Agreement, India as a member needs to protect the use of indications that rejects producers’ rights or deceive the public or imbalanced competition and market opportunities. In India, the Geographical Indications of Goods (Registration and Protection) Act, 1999 was enacted as a law that protects the primary right holders. It also ensures security in other WTO member countries. In the year 1999, WTO found out that 40 per cent of the European Union consumers would pay a higher premium of 10 per cent for origin-guaranteed goods. Another study revealed that Geographical Indication registered (GI) products in India fetches 10 – 15 per cent more returns for agricultural goods and 5 – 10 per cent for non-agricultural goods. As per the official list released by the Registrar of GI till December 2018, there are 326 registered GI goods in India out of which only 19 goods with 13 of them belonging to agricultural and 6 to handicrafts classes have been registered from northeast India. Despite rich diversity, unique skills and culture within the region, the numbers suggested low awareness on the benefits, legal protection and marketing opportunities that the registration of GI can offer. The paper is an extract of the doctoral thesis following modified methodology which attempts to highlight the potential for GI registration of one among the plant species that are widely cultivated in the northeast region of India whose scientific name is *P. roxburghii G. Don* belonging to Fabaceae (earlier sub-family: Mimosaceae). The tree is a less known multipurpose tree that plays a key role in ensuring socioeconomic security as well as nutritional substitutes to the tribes in the region.
Four species of the genus are indigenous to India, viz., P. biglandulosa W. & A., P. leiophylla Kurz. and P. insignis Kurz. with P. roxburghii G. Don being indigenous to northeastern India. P. roxburghii is believed to have its primary and secondary origin from the northeastern states of India and grows from 400 to 1,200 m in the tropical forests. It is a highly preferred agroforestry tree species in the home gardens and jhum affected areas being a fast growing, palatable fodder, provides fuel wood, had good association with crops, prevent soil erosion and a nitrogen-fixing tree with edible fruits. In favourable season, a mature tree can fetch approximately Rs. 8,000 to Rs. 10,000 per (as reported in 2004). Its timber is valued for making boxes, decorative articles and light furniture. The bark contains 6-15% tannin reported to be useful in tannin industry and the wood can also be used as a source of paper pulp. It is reported that 1-2 % seed oil of P. roxburghii can serve as potential insecticide on aphids.

Traditional knowledge and experiences of the people of the study area informed that seeds and pods of Parkia cures stomach disorders and regulate liver functions. The bark and leaves are used in making lotion for skin diseases and ulcers. Fomentation of decoction of leaves to the rheumatic affected parts is beneficial and pods pounded in water are used in washing face and head. Literature survey revealed that lectins extracted from seed of Parkia were found to show anti-proliferative effect on two murine macrophage cancers and have mitogenic properties. The bark of the genus Parkia is used for curing toothache and stomach upset and diarrhoea nonetheless, lectins extracted from seed were found to show anti-proliferative effect on two murine macrophage cancers and have mitogenic properties.

High fat content and high degree of unsaturation may boost extraction of some edible oils from the genus. Parkia was reported rich in lipid, protein, carbohydrate, soluble sugars, ascorbic acids, amino acids and fatty acids. Post-harvest products and fermented foods such as ‘dawadawa’ from P. biglobosa in Africa and ‘petai’ from Parkia speciosa in Southeast Asia have been reported by several authors. These processed condiments can be a substitute towards eliminating micronutrients malnutrition in the region.

The study recorded that Parkia trees are dwindling in the wild with no trace of regeneration in the wild. Besides seeds being lost to rodents and primates in the wild, Almond moth (Cadra cautella) also causes serious damage to the pod as well as seeds during storage. A seminar in 2009 held in Manipur University voiced concern about its conservation and scientific measures for insect and/or fungus attack. It is therefore imperative to save this important tree from extinction.

**Keywords:** Parkia roxburghii, Yongchak, geographical indication, northeast India, nutritional values, anti-cancerous.

**Conservation, Biodiversity and Traditional Knowledge as Part of the Cultural Expressions of the Khasis**

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(Paper presented in the National Symposium on ‘Intellectual Property Rights in the context of Traditional Knowledge and Biodiversity’, MLCU, Shillong, 6-7 December, 2018)

**Abstract**

Tribal communities in the world over always shared a close relationship with nature and has been instrumental in their roles as custodians of it. The Khasi is one of the tribes of Meghalaya of North East India. Seven sub-tribes constitute the Khasi tribe namely, Khynriam, Pnar, Bhoi, War, Maram, Lyngngam and Diko. Like other tribal communities, the Khasi have lived in harmony and profound communion with nature, with a culture and tradition of reverence for the elements that constitute ecosystems from which they draw their sustenance and at the same time protecting the environment that sustains them.

Besides looking at the Khasi community as a tribal community, we can view them as a group of indigenous people. The International Labour Organization’s (ILO) Convention concerning Indigenous and Tribal Peoples in Independent Countries (No. 169) distinguishes between tribal and indigenous peoples as (a) Tribal peoples whose social, cultural and economic conditions distinguish them from other sections of the national community and whose status is regulated wholly or partially by their own customs or traditions or by special laws or regulations; (b) Peoples who are regarded as indigenous on account of their descent from the populations which inhabited the country, or a geographical region to which the country belongs, at the time of conquest or colonization or the establishment of present State boundaries and who, irrespective of their legal status, retain some or all of their own social, economic, cultural and political institutions. It may be mentioned that international bodies such as IUCN Resolutions recognises that indigenous peoples possess a unique body of knowledge relevant for the conservation and sustainable use of natural resources. The strengths of Indigenous people as conservation and development partners include their diversity, self-organising abilities, knowledge, their internal accountability, and their locally-adapted cultures. They are nations based on and in the natural environment.

According to World Intellectual Property Organisation (WIPO), Cultural Expressions or Traditional Cultural Expressions (TCEs) are, succinctly, the forms in which traditional culture is expressed. They can be, for example, dances, songs, handicraft, designs, ceremonies, tales or many other artistic or cultural expressions. In this context, this paper attempts to highlight the biodiversity and its conservation aspects of the Khasis via its cultural expressions.

Traditional ethos of the Khasis in relation to nature conservation is reflected in their various cultural and traditional practices. With the existence of different worldviews including Western and Eastern worldviews, the Khasi’s concept and understanding about the world and the environment reflect a worldview distinct from the common ones thereby aligning with the Tribal or Indigenous worldview. This provides for a traditional ethos of the Khasis of co-existence between man, nature and the earth itself. Like all tribal societies, the Khasis have their own set of
Flora-based Indicators of Traditional Weather Prediction among the Sumi Tribe of Nagaland, Northeast India
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Abstract
This study is an attempt to list and document the flora indicators of weather prediction among the Sumi Tribe of Nagaland, Northeast India. The study was conducted in 4 (four) villages under Zunheboto district- Sukhalu, Shiyeu, Natha Old and Natha New. The information was collected through In-depth Interviews (IDIs) and Focus Group Discussions (FGDs) using convenient and snowball sampling. The informants were farmers, hunters, folk tellers, bards, both female and male above 40 (Forty) years of age. The study was carried out in 2016 - 2018. Acknowledging the fact that it was an exacting study, nevertheless, few important indicators were identified and reported, thereby, exhibiting a prevalent traditional practice of weather forecasting. During the process of this study, it was elucidated that despite the dependence of locals on the indigenous knowledge and their practice, IK is fast eroding as the wisdom holders are passing away before documenting their rich age-old traditions and practices.
Keywords: Traditional weather prediction, flora, indicators, Sumi, Nagaland

Indigenous Music in its Scope in Higher Education
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Abstract
Music of any ethic group or indigenous people is known as Indigenous Music (IM). At times IM is also known as traditional music. Music plays a very important role in every society both in the religious ceremonies as well as on secular occasions. All cultures have their own music and these have evolved in different ways. Depending on the geographical area, historical incidents, influences of other cultures and so on, music of a particular tribe or group of people progresses from one generation to another. Indigenous music is mostly handed own from one generation to another by word of mouth. In this study we looked particularly at the traditional music of the Khasi and mainly on one of the plucked stringed
instruments known as the *Duitara*. The objective of this study was to describe the importance of indigenous music as a discipline in the academic field and simultaneously developing the process of curriculum designing for *Duitara* music in higher education in order to generate livelihood and career opportunities through indigenous music. Ever since the introduction of IM in various academic institutions around town, it was found that the usage of IM in general and *Duitara* music in particular has moved away from the hearth and invaded every corner in the society from religious to secular occasions as well as in the academic world. Martin Luther Christian University, Shillong offer Under Graduate and Post Graduate programs in Music where courses in IM were also included. Simultaneously curriculum and learning materials have been prepared for the courses. Most of the graduates are employed as music teachers in various academic institutions, music schools, both in the government and private sector. Some of them work as assistant recording engineer at different music studios and few as music entrepreneur. Although they are engaged in their own field of work yet they still perform as IM artiste at different platforms such as religious and secular events.  

**Keywords:** Indigenous music, higher education, stringed instruments, *duitara*, playing techniques, career opportunities

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**Conservation of Khasi Traditional Music**  
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(Paper presented in the National Symposium on ‘Intellectual Property Rights in the context of Traditional Knowledge and Biodiversity’, MLCU, Shillong, 6-7 December, 2018)

**Abstract**  
All cultures have their own music and these have evolved in different ways. Depending on the geographical area, historical incidents, influences of other cultures and so on, music of a particular tribe or group of people develop from one generation to another. This type of music which is handed down from one generation to another is known as traditional music. According to Lapynshai Syiem, traditional music is a type of music which is handed down from one generation to another however requires learning, repetitive practices and constant involvement of a performer with the art and the music.  

It is observed that till date Khasi Traditional Music (KTM) is handed down from one generation to another through oral tradition. It is not wrong to say that there were just a handful of written documents on KTM especially on the technical part of it. Therefore there is a need to document LTM in order to conserve, promote and popularized KTM to the rest of the world. Speaking of documentation, one should understand that it can be in any form such as written document, audio recording and audio visual. In this present generation where technology is at the tips of our fingers, it is high time for Khasi traditional musicologist, musicians, music authors and so on to lay down their music and techniques using any kind of documentation system in order to conserve, hold and promote the same.  

Documentation merely help in conservation, on the other hand it will also assist contemporary musicians or musicology and other generation to come, to identify a particular technique and style of a particular musician.  

**Keywords:** Conservation, Khasi traditional music, oral tradition, documentation, upholds, promote

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**Transformation of Traditional Healing for Mental Health in Urban Nagaland**  
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**Abstract**  
Nagaland (Pop. 1,980,602, India census 2011), with 80% literacy rate and one-third urban has a very rich cultural heritage and is well known for its versatile traditional medicine. WHO (2016) defines traditional medicine as the “the sum total of the knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health, as well as in the prevention, diagnosis, improvement or treatment of physical and mental illnesses”. Traditional healers are a diverse group of practitioners ranging from folk herbalists, to diviners and magic witch doctors. People generally visit a traditional healer or local practitioner as the first step in the treatment of any diseases before seeking other systems of medicine and Nagaland is no exception. However, with urbanization and access to modern psychiatric care, there seems to be a transformation of help seeking habits for moving away from traditional methods for mental disorders. Based on in-depth household interviews of a representative random sample of 100 urban HH and 110 rural HH on seeking traditional healing in mental health during 2017, about half had some mental disorder, mostly depression, stress, anxiety and substance abuse. Only 10% in urban but 50% in rural had consulted a traditional healer, a statistically significant difference. Most urban HH had less faith in traditional methods and were in favor of Christian prayers and allopathic mental health care. Only 20% in urban as compared to 70% in rural felt that traditional methods are still popular. It is concluded that while traditional healers are still respected for their knowledge and wisdom, urbanization and access to modern psychiatric care is transforming traditional healing in mental health in Nagaland.  

**Keywords:** Mental health, traditional healing, urbanization, Nagaland
**Introduction of innovative approaches to facilitate self-awareness among freshmen undergraduate students in the Northeast India**

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**Abstract**  
As the transitional stage from adolescent to young adulthood develops, students are also faced with various challenges which are sometimes manifested in academic difficulties or discontinuation and in emotional or psychological distresses. In the aspects of learning in Piaget’s view, this is the stage when a realistic and pragmatic ways of thinking are expected to begin as preparation for work and the other tasks of adulthood are contemplated (Santrock, 2008). Reflective and relativistic thinking are also expected to emerge at this stage (Perry, 1999) through which the increasing interaction between cultures and worldviews play a vital role for more complex thinking. Hence, self-awareness becomes vital at this stage since it entails understanding one’s own thoughts, character, feelings, motives, and desires and recognition of one’s own identity (Duval and Wicklund, 1972). The introduction of the Foundation Semester among the freshmen undergraduate students in the Martin Luther Christian University Shillong is an undergoing process. It attempts to provide platform for students to recognize their potential, enhance social and academic adjustment, appreciate cultural diversity, clarify their career choice, increase awareness for the care of the environment, and build confidence in and knowledge of self-image, body image, and sexuality. For the first attempt, 269 first year undergraduate predominantly tribal students from Northeast India enrolled across all the 8 departments were given a series of workshops which included Cultural Studies, Career Orientation and Preparation, Knowing Myself and My Identity, and Environment Studies. Life Skills and Art Appreciation workshops will be conducted during the second Semester. Among which, 160 students completed the pre and post-tests. After the first and second academic year, 50 students will be interviewed and 8 Focus Group Discussions will be conducted to further establish the link between self-awareness and all the components of the FS. For this paper, only the results of Knowing Myself and My Identity was presented. Initial findings show that although there were slight variations in the number of students indicating negative responses at the pre-test level, a marked change of responses at post-test was recorded being, positive responses significantly higher than the negative responses. This change of responses may indicate an increase of awareness towards all of the sub-components.  
**Keywords:** Foundation semester, self-awareness, freshmen, undergraduate, Northeast

**Integrating Traditional and Indigenous Healing Practices into Counselling and Psychotherapy in Nagaland, India**

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(Presented at the 4th International Conference on “Counselling, Psychotherapy and Wellness and the 5th Congress of SithCP3”, at Christ (Deemed to be University), Bengaluru. 03 – 06 January, 2019)

**Abstract**  
An in-depth interview survey on traditional healing practices and perspectives was carried out on representative random cluster sample of over 800 households in urban and rural Nagaland state in northeast India during 2017-18. While the main focus was on mental disorders, data on general morbidity were also obtained. Nearly 30% sought traditional healing for mental health problems, 35% in the rural and 17% in the urban, at least as a first step, and almost 40% stated that the outcome was good. However most of the disorders were psychosomatic, psychosis or mood disorders. The traditional healers were not always up-to-date or knowledgeable in serious mental ailments and their treatments delayed proper treatment resulting in complications. Given the availability of modern psychiatric care, there is an urgent need for proper counseling services to advise, direct and assist the people for judiciously using traditional healing practices, and developing community based mental health programmes involving the traditional healers also.  
In this paper, a brief overview is provided on the healing practices, their outcomes and satisfaction, popularity and preferences for seeking traditional care. Based on the feedback, suggestions are made for effective counselling programs and psychotherapies.  
**Keywords:** Mental health, traditional healing, integrated counselling, Nagaland

**DEPARTMENT OF SOCIAL WORK**

**Coping strategies of single mothers in the matrilineal society of Meghalaya**

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(Presented at the National Seminar cum Workshop on “Mental Health and Social Work Practice” at Assam Don Bosco University on 28 April, 2018)

**Abstract**  
Single mothers face various challenges as they are the sole responsibility for providing for the needs of the household and hence are reported to experience psychological distress and symptoms of depression especially when they have young children. The objective of this study is to examine the coping strategies associated with the psychological wellbeing of a single mother. The research design adopted for this study is a cross-sectional exploratory method where both qualitative and quantitative approaches were applied. The study was conducted in East Khasi Hills District of Meghalaya where a multi stage sampling design was used for the selection of blocks and villages. The participants were
230 single mothers from 24 villages and the methods of data collection used were household survey, in-depth interview and focus group discussion. It was found that the age of the mother when she took over the headship, her personality and the support received were contributing factors in coping with abandonment or death of the husband. The welfare of her children was found to be her main motivation to cope. Religion also played an important role in enhancing will power and confidence. The support of children, family members and neighbors were also helpful. These factors were associated with the psychological wellbeing of single mothers.

**Keywords:** Single mothers, matrilineal, coping strategy, psychological wellbeing.

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**Women Headed Households and children’s education in the Khasi Hills of Meghalaya**

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**Abstract**

Women Headed Households (WHHs) are seen as vulnerable and are poorer than the male-headed counterparts. There is a trend of increasing number of WHHs with children in which their educational levels are likely to be affected as the children’s schooling attainment depends on financial resources. The objective of this study was to analyze on the educational status of the children in WHHs. The study was conducted in East Khasi Hills District, Meghalaya in which a mixed method approach was used. The research participants include 200 WHHs and 200 Two-parent households (TPHs) from the 24 villages who contributed to this study through household survey, in-depth interview and focus group discussion. It was found that the number of children in both the types of household is four in which half the children in WHHs are not in school as compared to one fourth of the children in TPHs. The average age of the eldest child in WHHs when the mother took over the headship of the family is 13 years which poses a great challenge to the female head as she has to single handedly manage everything at home. There are 80% of the children in WHHs who dropped out at primary or upper primary level of education. The factors contributed to low levels of education of children in the WHHs are low income levels, types of family and the educational levels of the WHHs. There were however, no differences in the performance of the children in school between WHHs and TPHs.

**Keywords:** Women Headed Households, children’s education, two-parent household, drop out
Inculcation of Christianity among the Khasis
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Abstract
This paper presents a brief discussion on the inculcation of the Christian faith among the Khasis, with special reference to the Catholic Church. The paper begins with a short introduction to the inculcation of Hinduism among the Khasis during the pre-colonial and pre-modern period, and the influence of the Christianity on the social and religious life not only of the Christians, but also of the Khasis in general since the colonial period.

Christian missions came to the Khasis Hills early in the 19th century, and today, Christianity has become the religion of the majority of the Khasi people. The Catholic Church in the Khasi and Jaintia Hills is said to be deeply rooted in faith and shows the way to inculcate the Gospel in the tribal traditions. Khasis accepted the Christian faith in large numbers because the Gospel was seen as a fulfillment of their aspirations and hopes. Today, the symbol of a cock has been used in religious vestments, monoliths have been raised, and cultural dances are being organized in almost every Catholic local community. Indigenous thought pattern in prayers and ceremonies had been introduced and found their way into the official hymn and liturgy book in the Archdiocese of Shillong.

However, inculcation of Christianity among the tribal communities of North East India needs to undergo further steps if the Christian faith is to be part and parcel of the people’s worldview and ethos. These steps need to start with proper understanding of tribal consciousness and the nature of tribal culture. From the social perspective, inculcation should be based on tribal cultural traditions as well as on the contemporary social situations. From the Christian spiritual point of view, true inculcation has to take place in the formation of faith and its dynamic expressions. Tribals have firm belief and strong faith in the manifested spiritual power of their traditional religious rituals because they believe that these rituals have the power to communicate with the powerful spiritual world. In order that Christianity can be liberative, it should be able to meet these tribal aspirations. People need genuine liberation from their troubles, sorrows and sufferings. The power of the Holy Spirit is universal in time and space; what is needed is the manifestation of that power in the name of Jesus Christ. True inculcation among the tribals would take place only when Christianity is able to meet their yearning for security and refuge in their existential encounters, materially, socially and spiritually.

Keywords: Christianity, inculcation, tribals, Khasis, Catholic church

Evolution of Khasi Traditional Governance Institutions
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Abstract
This paper concerns with the issue of how traditional governance institutions of the Khasis had undergone changes and evolved into new avatars according to new social situations since the advent of the British Rule. In the pre-colonial period, the Khasis had organized themselves under a political system of their own which was an outcome of their social evolution. The kur (clan) was the nucleus of all traditional socio-cultural and political institutions. Hence, the political system among the Khasis was not a popular democracy but it was a clan-based aristocratic democracy. It is a popular opinion today among scholars that the traditional political system of the Khasis was structured in a three-tier system: (i) dorbar shnong (village council), (ii) dorbar raid (council of a group of villages), and (iii) dorbar hima (state council). And that, the dorbar shnong (village council) today, in which all the adult male inhabitants of the village irrespective of clan affiliations have the right to attend and participate is considered a traditional grassroots governance institution since time immemorial. But a study undertaken on the evolution of the Khasi traditional governance institutions revealed that a village council in which all the adult male inhabitants of the village irrespective of clan affiliations have the right to attend and participate had never existed among the Khasis in the pre-colonial period. As it is functioning today, though women are not allowed to participate, the dorbar shnong is no longer the general assembly of the Khasi male heads of clans, but it has become a general assembly of the male heads of nuclear families, representing their wives and children, which is not in line with Khasi tradition. Today, the clan has lost much of its institutional character, and the kui (maternal uncle) is no longer the institutional leader of the clan. Hence, the dorbar shnong today is a new grassroots governance institution emerging out of the amalgamation of the Khasi clan-based democracy and the individual-based modern popular democracy. It is a political institution of the Khasis, by the Khasis and for the Khasis only; it is ethnocentric, gender-exclusive and semi-democratic in nature. However, since the dorbar shnong has naturally evolved within the Khasi society in the process of adjustment and accommodation with emerging historical situations, it can be considered to be a Khasi indigenous grassroots governance institution tough it has never existed in the past. Moreover, the dorbar shnong today is recognized as an agency of the Government in implementing socio-economic development programmes, in the maintenance of law and order, and in dispute resolution among the people, and there is a gradual and natural persistent shift in the system of governance at the grassroots level towards modern participatory democracy.

Keywords: Democratic decentralization, local governance, khazi traditional democracy, dorbar raid, dorbar shnong.
Man and the Cosmos in the Khasi Traditional Knowledge System
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Abstract
Traditional knowledge in folklores
The Khasi ancestors like all tribal peoples of the world, did not have a clear scientific knowledge of life and the universe as modern scientists do; but that does not mean that they were ignorant of the world of things and phenomena around them. On the other hand, Khasi elders used to say that it is dangerous to live in ignorance, and therefore some explanation must always be there for anything. So, they created stories about the cosmos according to the nearest understanding of life and nature prevalent during the period they were living. If they cannot understand about certain things or phenomena, they would not just be content with ignorance, but they would create stories to serve as possible explanations and as workable solutions to the wondering mind, as well as to unify every part of the cosmos in one coherent whole and bring all its aspects under their mental control.

The Khasis also used folktales as a means to establish covenants between humans and all other beings, material and spiritual, for coexistence in peace and order. The traditional Khasi society is primarily a system of covenants, documented and immortalized in folktales and stone structures. The clans as basic members of society, through the actions of their members, interact among themselves and with all other beings within these established covenants. Individuals interact among themselves not in their individual capacities, but always on behalf, and in the name of their clans.

The Khasis are a people who live in profound communion with nature, and this is seen in the attitude that the ancient Khasis used to have towards their environment as reflected in many of their folktales, songs and dances. The ancient Khasis do not exclude the animal kingdom from their social environment, and they could communicate freely with the rest of creation (Mawrie, 2009, p. 2). History shows that whenever a group of clans migrated to a new geographical area for settlement, the first thing they did was to start naming the various locations, rocks, streams, cave, etc. It is interesting to note that elders in the Khasi villages have a name for every spot, every rock however small, every plant and every insect. In this way, there are hundreds of stories which tell us, why the hornbill never flew towards the direction of the sun, why the ox has no upper teeth, why the crow is black, why the cat buries its own excreta, etc.

The cosmos is called ka pyrthei - ka mariang. Ka pyrthei (world) includes the world wide surface of the earth together with man’s social living. Ka mariang includes the world wide surface of the earth together with all living creatures, plants and animals and all else, other than man. It also includes all natural elements like wind, rain, sunshine, thunder, lightning, the moon, the stars, etc. But according to Khasi thought, ka pyrthei – ka mariang or nature covers not only man’s physical existence in the material world among all physical beings, but it also includes his spiritual existence among other spiritual beings and spirits of ancestors. So, the Khasi nature or cosmos consists of three aspects: - The natural environment, the social environment and the spiritual environment. The Khasis live in that attitude, acknowledging the coexistence of the three aspects of the cosmos surrounding their lives.

Creation of the cosmos
In the creation accounts of some of the tribes, existing matter is presupposed, and God created by making use of pre-existing matter. The Chotanagpur tribes take this to be water, and so do two of tribes of North East India, the Khamti and Garos (Parapullil, 1977, p. 34). But according to the Khasi mythology, God, through his creative attribute called ka Mei Hukum first created ka ram-ew (the earth mass beneath the ground surface and beneath the ocean), and ka ram-ew, by her own volition gave birth to the moon, the sun, the wind and the fire (Bacchiarello, 2005, p. 17; Elias, 2009, p. 1). Ka ram-ew was covered by water. Ka Hukum caused u ryngkew (dry land surface) to emerge out of the depth, and he was married to ka ram-ew. The union of u ryngkew and ka ram-ew, gave rise to springs, streams and rivers, and these washed ka ram-ew who then gave birth to ‘stone’ and ‘soil’. Since then, u ryngkew (dry land) and ka ram-ew (land under the surface) clasp each other firmly in eternal unity (Laloo, 1978, pp. 3-4).

Ka ram-ew is the spiritual being of the earth. The land of the Khasis is called ka ri (geographical settlement of a particular society), but ka ram-ew is the total land mass of the earth who is reverently addressed to as, ka mei ram-ew (mother-earth). The word ryngkew is generally taken to mean the land uncovered by water of rivers and oceans. But u ryngkew is also conceived of as a male spirit hovering over the earth, and in religious terminology he is called u ryngkew-u basa who is conceived of as u ‘labasa (leopard). It is said that the word ‘labasa comes from two roots, khla meaning tiger and basa means house. The Khasis believed that this is a man-tiger. Usually it is the maternal uncle of the clan who assumes this form after his death in order to safeguard the clan (Mawrie, 2009, pp. xx). There is a story which says that the spirit of u Pantah, a male child of the jait lyngdoh of Raid Nongkhrah who died mysteriously in the wood got transformed into u Ryngkew Pantah (Laloo, 1992, pp. 13-16). Indeed, it is said that in many of the clans in the Ri Bhoi region, the spirits of their first maternal uncles manifest from time to time in the form of tigers. The name of u ryngkew of the jait lyngdoh of Raid Thaïang is said to be u Sirang who is of whitish colour, majestic and sober looking, while that of the jait syiem Thaïang is of reddish colour, rustic and ferocious looking.

The creation of man
The Mundas, like the Hebrews, believe that Horam or Singbonga (God) created man by shaping the clay into a human form (Exem, 1978, p. 26). But there is nothing in the Khasi mythology to indicate when, how and by what substance God created the first human beings. The Khasis do not say that God created man out of any pre-existing matter or out of the dust of the earth like the Hebrews or the Mundas.

In the Khasi mythology, God, through his creative attribute called ka Mei Hukum first created ka ram-ew (the earth mass beneath the ground surface and beneath the ocean), and ka ram-ew, by her own volition gave birth to the moon, the sun, the wind and the fire (Bacchiarello, 2005, p. 17; Elias, 2009, p. 1). Ka ram-ew was covered by water. Ka Hukum caused u ryngkew (dry land surface) to emerge out of the depth, and he was married to ka ram-ew. The union of u ryngkew and ka ram-ew, gave rise to springs, streams and rivers, and these washed ka ram-ew who then gave birth to ‘stone’ and ‘soil’. Since then, u ryngkew (dry land) and ka ram-ew (land under the surface) clasp each other firmly in eternal unity (Laloo, 1978, pp. 3-4).

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(sixteen huts) living in peace in heaven. Thus according to the Khasi thought, man has already existed in heaven before the creation of the material world, and his advent into the world is through ka daw (design) and ka hukum (decreet). Thus man is said to have come into the world as designed and decreed by God (Mawrue, 2010, pp. 3-4).

When ka Mei Hukum (creative attribute of God) has created the cosmos, and the laws of nature were set in order, ka mei ram-eu (mother earth) made a plea to the Creator to send someone to be the guardian and steward of the whole creation. A heavenly assembly was called and it was resolved that the hynnieuw trep (seven huts) should take care of the earth. Hence, God ordained the seven huts to descend and remain on earth and take care of everything in it while the khyndai trep (nine huts) were to remain in heaven (Bacchiarello, 2005, pp. 17-18; Elias, 2009, p. 2; Laloo, 1978, pp. 4-5). The seven huts were permitted to commute from heaven to earth and from earth to heaven again, through the jykngkieng ksaiv (golden stairs) which were said to be on a mountain called u Lumsophpetbneng located in the Ri Bhoi region on the northern part of the Khasi and Jaintia Hills. U lum means ‘mountain’, sobpet means ‘nave’ or ‘umbilical cord’, and bneng means ‘heaven’. Hence, u Lumsophpetbneng means a mountain which is the navel of the earth where the umbilical cord is attached to connect with heaven, which in Khasi concept is the spiritual realm where God and spirits of the ancestors live in happiness and peace eternally.

According to another version of the mythology, God has not decreed man to stay permanently on earth as its guardian and steward, but it was man’s free choice. Some khanatang (legend) says that the sixteen huts commuted from heaven to earth and heaven regularly, and by and by, seven of the sixteen huts grew attached to the beauty of the earth and opted to stay permanently in it with occasional visits to heaven through the same golden stairs. Ka Lei-Synshar (executive attribute of God) permitted the seven huts to stay on the earth, but as a sign of the covenant she planted a giant tree called u diengiei on a mountain now called u Lumsodiengiei on the south-western side of u Sohpetbneng peak. That was the age of love and peace, and there was regular communication between the khyndaitrep in heaven and the hynnieuwtrepon earth.

Different versions of the diengiei are presented by the different Khasi writers, probably reflecting the fact that there are variations in the details of the story as told by people living in different parts of the Khasi and Jaintia hills. According to one version of the myth as narrated by G. Costa (2010, pp. 1-3), God granted peace and prosperity to the seven huts. They lived in harmony with every creature on earth and lacked nothing. God also made a covenant with them that he would be with them always. As a tangible sign of this covenant, God planted the diengiei on a hill top which also acted as a ladder between heaven and earth. The covenant said that as long as man would preserve this tree they would enjoy peace and immortality, but if the tree is cut down, sin and suffering of all sorts would invade the world. However, some authors depicted the diengiei story as a situation of spiritual crisis. They are of the view that the diengiei with its wide spreading branches and rich foliage, is taken to symbolise the reign of evil. Hence they interpreted the diengiei as a sign of sin or a curse (Laloo, 1978, pp. 8-9; Mawrue, 2010, pp. 19-23; Tariang: 2012, pp. 5-7).

The view given by the Khasi elders living in Ri Bhoi region is in line with the version given by G. Costa (2010) that the diengiei was a sign of the covenant which God has planted. The golden stairs on Sohpetbneng peak signifies the religious foundation of the Khasi society, and the diengiei signifies the foundation of human society within the ecosystem. There is no mention of the golden stairs on Sohpetbneng peak as a huge tree. It is simply called the jyngkieng ksiar (golden stairs). The golden stairs were there from the beginning when the sixteen huts communicated from heaven to earth and from earth to heaven, while the dieng-iei was planted by God as a social covenant only when the seven huts opted to stay permanently on earth.

The mythology says that the evil one called u kuid tempted two brothers, u Syrmob and u Syphin to cut down the tree. Misinterpreting the meaning of the dieng-iei, the evil one said that it would grow so huge and cover the whole world in darkness, destroying their crops, and men would be devoured by the beasts. The two brothers believed the word of the evil one and invited other men to cut down the tree of social covenant. The tree was so huge that they could not cut it down in a single day, so they left the work to be completed on the next day. But when they went the next day they found no cut marks at all as the tree had become whole again. That miraculous phenomenon happened for three consecutive nights, and men were totally confounded until a little bird called ka pheir on condition of being given the freedom to eat the paddy in their fields, told them that the tiger came and licked the wounded tree every night and it became whole again. Hence, the little bird advised them to put their cutting knives and axes by the wound of the tree so that the tiger would not be able to lick it. In that way the tree of social covenant fell down. But instead of the light of joy, the hearts of men were filled with sorrow when their conscience informed them that what they had done was not according to the will of God and not in line with the principle of nature. People were alarmed. So, they turned to ka’Lei-Synshar and begged for her forgiveness and promised before her that in lieu of the diengiei which they had cut down, they would set up law-kyniati(sacred groves) and law-adong (reserved forests) everywhere in the land.

The Khasis believe to this day that a tiger is always guarding these sacred groves. It is the spirit of that same tiger of yore that licked the diengiei in an attempt to save it from wanton destruction. A knowledgeable Khasi elder (late) Mr. Shlur Lyngdoh has narrated to this writer that in one of the religious sacrifice concerning the law-kyniati(sacred grove) the priest prays: Na khrum u matswoiang, haneng kabna shan, teeng nga u khunbyeive. Nga deu u tymeen u sau; nrug Trai Kynad najrong natbian, hukbmih nga dei taj u long-doh; hun se Blei Trai Kynad, ha ka jaka ka diengiei ngin bnh nob da ka law-kyniati (From beneath the blue sky, and on top of mother earth, stand I, a human being. I am an elder. Hear o Lord and Master, above and below, I am but just a human being in flesh and blood, be content with us O God, Lord and Master, in lieu of the diengiei we shall set up law-kyniati (sacred groves). Late Mr. Shlur Lyngdoh said that in place of the tiger which guarded the diengiei, u yngkew u basa (mysterious leopard) is guarding every Khasi sacred grove. And, at every jyngkiatia (religious sacrifice), the Khasis plant a branch of the diengining (oak tree) as a replica of the diengiei.
Ka krem lamet-latang
According to the Khasi mythology men and all creatures, living and non-living, were in the beginning able to communicate with each other through the common language of truth, understood not by the intellect or reason, but directly by the heart or by intuitions. The mythology says that there was a ‘Great Dance’ which God through the agency of ka’Lei Synshar, organised for all creatures including human beings to celebrate the re-establishment of the covenant after the fall of the dienigie. During that great dance, u bnai (moon) and ka sngi (sun) who were brother and sister respectively arrived late to the dancing ground and had no partners to dance with, so they made partner of each other and entered into the dancing ground among all other creatures. Man, who should have been the leader of all creatures entrusted by ka’LeiSynshar to see that the dance is carried out in peace and order, started instigating all other creatures to laugh at the moon and the sun, suggesting shame for a brother and his sister to engage as dancing partners. The sun felt so deeply humiliated that she fled into the krem lamet-latang (primordial cave) and hid herself from the eyes of all creatures.

Darkness gradually crept in and all creatures were in great confusion, and man lost control of the situation. The dubahlia (musicians who play the drums, the flute and cymbal) played in frenzy out of control until the hands of u kyndat (hedgehog) who played the drum got inverted, the mouth of u khnai niijid (rat) who played the flute got sharpened and elongated, ka dbkob (owl) kept on dancing proudly closing her eyes, thinking that everyone was looking and admiring her beauty, while u dbkhan (bamboo rat) was looking and laughing at her vain expression of sleeping beauty until his eyes got smaller and smaller like those of the Chinese. In the midst of all this confusion, u pyrthat (thunder) started behaving rudely and asked u kui (skunk) to lend him his silver sword for the mastieh (war dance). Getting hold of the silver sword, the thunder flashed it in lightning and roared wildly and flew to the dark clouds in the sky. It is said that the skunk was desperate to recover his sword from thunder, so he started building a mountain by passing his excreta in the same place all his life believing that it would reach the sky.

When darkness enveloped the earth, the cosmos was in spiritual chaos, and in that situation man summoned a dorbar of all creatures to discuss the problem. U kokkarang (hornbill) volunteered to approach the sun and entreat for her return, and man agreed to his proposal. But instead of imploring the sun to have mercy on all creatures, the hornbill was struck by her beauty instead. So, he started flirting and courting her. Angered by such disrespect, the sun struck him hard with her beauty instead. So, he started flirting and courting her. Man, who should have been the leader of all creatures entrusted by ka’LeiSynshar to see that the dance is carried out in peace and order, started instigating all other creatures to laugh at the moon and the sun, suggesting shame for a brother and his sister to engage as dancing partners. The sun felt so deeply humiliated that she fled into the krem lamet-latang (primordial cave) and hid herself from the eyes of all creatures.

Seeing the fate of the hornbill, no other creature dared to volunteer in the mission. So, inquiry was made to find out who else had not attended the dorbar. It was found that u khan lymboit-lymbiang had not attended. This creature lived on earth but away from other living beings. He was summoned to the dorbar and his intervention was sought for. U khan lymboit-lymbiang agreed to tread the dreary path to the krem lamet-latang and to implore the sun to return and shed her light again upon the earth. Struck by his humility, the sun agreed to come back to the earth, and instructed him that as he was crossing the borderline between the earth and the krem lamet-latang, he should clap three times and she would come out of the dark cave. He observed the instruction diligently and the sun appeared and shed her light upon the earth to the joy and happiness of all creatures. The Khasis used to tell their little children that the sun rises every day because the cock kyn-ih (crows) three times in the morning. The meaning of the myth is that, in spite of reconciliation, man lost his true spiritual nature when he had disobeyed God’s command. He failed to understand the common language of truth when the truth was hidden beyond the reach of human reason and understanding. The hidden truth is signified by the fleeing of the sun into the krem lamet-latang. Man could no longer attain direct knowledge or direct experience of the truth; he lost knowledge of his own spiritual reality. That grace was taken away from man, and in turn he was given reason, intellect and a language so that at least he would not be totally in the dark. With only reason, intellect and language man was equipped to recover his own spiritual reality as far as he could. Other creatures had not as a category displeased God. Hence, they were not provided with language, reason and intellect because they could still understand the common language of truth. However, they were decreed to serve man in respective statuses and capacities for having been involved in various ways in man’s disgraceful activities and spiritual downfall.

For man, the truth behind sensible phenomena had become a mystery. There was no living being, existing at the level of reason, which could help man out of that malady. Only a being, that exists partly on earth and partly in the realm of mystery, which can intervene in man’s quest for the truth. The mythology says that man sought the intervention of u khun lymboit lymbiang. This creature lives on earth but away from other living beings because he is naked, without head or tail, without eyes, mouth or ears and without proper form. That being is the fertilized ovum enclosed in a shell, and that is what we call the egg. A fertilized egg is a living being but excluded from other living beings by a non-living matter - the shell. Only fertilized eggs in which life process exists are used in divination rites of the Khasis. Unfertilized eggs have no life process and hence are dead and cannot be used as medium of knowledge of facts and truth, or if they are used, the Khasis believed that evil spirits might reveal contrary answers, or just display probability like casting lot.

In human beings, the female ovum is fertilized on meeting with the male sperm, and when life process begins in the womb it remains there for about nine months before being born as a baby into the world. In the Khasi concept, the womb which holds a fertilized ovum or a growing child is called ka jar ksiar-ïawbei or the golden enclosure of the ancestress. In the case of fowls the fertilized ovum is born into the world together with ka jar ksiar-ïawbei which is the egg shell. The hen gives birth to the egg, but it is the egg which after sometimes gives birth to the chick. The growing chick inside the egg shell is born into the world but it cannot yet join with the living because it is still enclosed inside ka jar ksiar-ïawbei. The being inside the egg lives in the realm of mystery. It is linked with the material world and the spiritual world, between the living and the dead. It is alive but not yet living; it sleeps in a trance in the realm of mystery. It is on this account that the Khasis believed that the egg can be used in a divination rite as a medium through which the interceding spirits can communicate to the world of human beings. The
There is a general belief that any being living in a trance can act as a medium of communication between this world and the netherworld. It is said that the priestess in Apollo’s temple at Delphi in Greece could give prophetic answers only when she was in a trance. Among the Khasis there were persons, usually women who are believed to be able to give prophetic answers when they were in a trance. This is called in Khasi, *kren taro* or *kren shawar*. It is also said that in hypnotism a person can speak unconsciously when he is made to sleep in a trance. In that condition, a person is said to be able to bring out even childhood experiences which have long receded into the unconscious or subconscious mind. Hence, the Khasi belief in the ability of a being, existing in a trance to act as a medium of communication between the physical world and the spiritual world has something in common with belief in other parts of the world.

When the egg had agreed to intervene between man and truth, it was dressed in royal attire complete with turban and gold ornaments and it became a cock. It is on this account that the Khasis believed that when the revelation of truth was received through divination with the egg, a sacrifice of thanksgiving was offered by the sacrifice of a cock. It takes the intervention of a being half in the world of the living and half in the world of the dead for revelation of truth; and it takes the life of a being from the world of the living to be sacrificed to carry the thanksgiving to the spiritual world. It is believed that after the thanksgiving is delivered to God by the spirit of the sacrificed cock, peace between man and God is again established.

### Covenants among creatures

According to Khasi thought, man is a created being, but a creature above all other creature and he is the master of them all (Mawrie, 2015, p. 3). In the context of justice before *ka Hok* (divine justice) a great degree of equality between all the creatures of God is seen as an important aspect of the order of creation among the Khasis. Although man is considered a superior being, yet in his relationship with other creatures he is never seen as a species above the rest (Mawrie, 2009, p. 41).

The Khasi believes that the mountains, the rivers, the moon, the sun, the animals, the trees, the wind, the thunder, the fire, etc., have their spiritual reality, have their *ki hok* (right), and *ki daw* (design) to exist in the cosmos, and man should respect that, and should not interfere or intervene in their realms more than what is required for his own existence.

For the Khasis, everything on earth has its own honour, its own jurisdiction and its own limit. Therefore the Khasis believe that it is not spiritually and morally proper for man to spit in insult or dishonour in words, the cave, the wood, the rock, the river, the mountain, the fire, the tiger, etc., or even to kick a dog or a cat unless there is sufficient reason to believe that they have crossed their limits. Before the Khasis can carry any piece of stone, or break a rock to be erect as *u mawbyna* (monolith) or build *ka mawbah* (repository sanctuary of the dead), or any other purpose, they should ask for its willingness through *ka shat kakbeiti* (divination). If the divination shows that the stone does not agree to be made so, then they would not carry it by force because they believe that by so doing they would be transgressing into other creature’s rights and dignity and therefore evil would be fallen on them.

However, the concept of the spiritual reality of beings is more stressed with those creatures which can move from one place to another, which can cry in pain or in distress, and which can struggle for life from the clutch of a predator. These are creatures of the animal world which the Khasis believe to be possessing of some sort of animal souls. The Khasi elders used to say, “*Wat ju lehbein lekhhob para-mynsiem*” (do not ill-treat or abuse other fellow souls). Man as the greatest living beings in flesh and blood has a covenant with God’s attributes: *ka Hukum, ka Synshar* and *ka Hok*. The greatest of all covenants is that all creatures including man, should not break their respective covenants and the attribute of God who shall bless on punish on that count is *ka Hok* (Divine Rule, Divine Justice). Having thus established the covenants, the Khasis lived in peace with the understanding that every aspect of nature is bound to behave in order according to a kind of covenant as reflected in their mythology.

Though the Khasis consider that all things on earth have a spiritual reality, but they know that the spirituality of earthly-beings and elements of nature is inferior to that of man himself. They know that as human-beings they are greater than all other creatures, and to confirm that, they instituted a story that *ka Synshar* or *ka ‘Lei Synshar* has appointed man as the ruler of all creation and that she has given him a language, the words of which have power. With the power of the words man shall rule the world and all the creatures in it. For his own needs, man can do anything with the world and all the creatures in it, but he should not ill-treat or abuse them unnecessarily. He should not even cut a blade of grass for no reason at all. If man wants to do anything in excess of the limit against any creature he must *pyniekg ka daw* (create a reason) for doing so with the power of his words. With the covenants of the stories he made, and with the power of his words, it is man who shall decide to feed the pigs with the husk, the dogs with the leftover of his meal and to the cats with some dry fish and fish bones, etc.

The cosmos as understood by the Khasis is the medium where man lives, like water is to the fishes. Man cannot be a human being outside the cosmos. The moment a man tries to stand out of the network of covenants in the cosmos, he would become a freak, a lingering ghost or demon without aim and objective. This is what happens to those people who committed suicide. It is on this reason that the Khasis believe that man should not stand against nature, but to adjust himself with it according to the requirements of his human existence. That is the concept of the status, honour and dignity of man, and of every being, every element and every force of nature according to the Khasi traditional knowledge system.

### Keywords:

Traditional knowledge, cosmos, creation myth, world, covenant, *jyangk-eng kiat*, *dienget*. 
Integration of Khasi Traditional Music in Christian Churches in Shillong. 

East Khasi Hills District, Meghalaya

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Abstract

The Khasis, one of the tribes in Meghalaya, traditionally practice their own indigenous forms of religious worship and faith expressions. Music was and has always been an important component of the tribal spiritual expressions. Khasis are lovers of music and nature, and they have their own kind of traditional folk music. Khasi have their own traditional religious belief known as Ka Niam tynnai which consists of the practice of animal sacrifices, dances and festivals accompanied by music.

With the introduction of Christianity to the Khasi during the 18th centuries which brought about the growth of major churches in the Khasi Hills, the Khasis who were converted to Christianity slowly moved away from traditional music due to its perceived link with animism or pagan practice. Moreover, within the various Christian denominations, differences in the styles of music and expression of worship were also observed. However, in the current scenario, there had been changes in the forms and expressions in church music where some aspects of Khasi traditional music are being incorporated. The factors that led to these observed changes are discussed in this paper, and also questions like, to what extent integration of traditional music is impacting the church today, and what prevailing perceptions and attitudes among young church leaders towards this integration, are the questions that this paper seeks to answer.

Keywords: Integration, Khasi, traditional music, church

Career Development of High School and Higher Secondary School Students in Garo Hills, Meghalaya: A report of preliminary findings

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Abstract

Garo Hills have been a neglected region in many aspects including in education. Furthermore, it can be widely observed in Garo Hills that there seem to be gaps between the available resources, careers required for managing and developing these resources, and the knowledge or interest of young generation in pursuing these directions. The objective of this report is to analyse on the factors influencing career development of High School and Higher Secondary School Students in Garo Hills and its implication to higher education. In the past years, although few students from Garo Hills excelled in their matriculation examination, the trend has shown low performance across many years (MBOSE Booklet, 2005-2017). In this preliminary report socio-economic, cultural, political, and general factors specific to Garo Hills Districts will be highlighted. Data analysed among 100 participants inclusive of randomly selected male and female from government and private schools in three districts of Garo Hills namely West, South, and East Garo Hills is presented. Career Development Needs Questionnaire and Career Problem Checklist were developed. Interview and focus group discussion were conducted. This present research hopes to unearth some of these cultural influences and social cognitive influences that can perhaps bring light to the development of culturally relevant career related services for the Garo community in Meghalaya across educational levels.

Keywords: Career development, high school, higher secondary schools, students, Garo Hills, Meghalaya

A pedagogical approach to a transitional stage of freshmen undergraduate students

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Abstract

As students enter the university education they are also entering the early stage of adulthood. It is in this early adulthood, networks of friendships expand as new social relationships that are made away from home. These friendships sometimes become more important than family in the maintenance of sound mental health. Shared altruism and idealism may lead to group volunteerism, strengthening social integration. Moral reasoning and ethical codes reach the highest stage of development between 20-22 years of age (Kohlberg, 1986). Transition from school to college, childhood to adulthood, home to hostel is sometimes stressful besides other transitional stresses of academic, physical and social change. This paper presents the need for introduction of a foundation course which is spread throughout the first year to all freshmen undergraduate students. The students were exposed to a series of workshops ranging from career, music, knowing oneself, culture and environment, values, life skills and sexuality. Since, the course is based on analysis of a certain need and conceptual framework, this paper also aims in obtaining feedback for the purpose of formalising this foundation course as a regular orientation for all freshmen undergraduate students. The course aim to ensure that students are able to identify their priorities, their personal opinion on life through understanding one self and ones motivation, enable them to relate with self-identity by developing their knowledge, understanding and confidence.
of one’s own culture beliefs and practices as well as to develop a sense of respect towards culture beliefs and practices of others. Students developing positive attitude towards gender and sexuality, orientation towards one’s own career choice and most importantly orienting themselves towards the need and important of community service.

**Keywords:** Early adulthood, transitional and foundation course

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**CENTRE FOR CAREER DEVELOPMENT AND PLACEMENT**

Role of education in enhancing the intellectual capacity and understanding of media content among the rural masses of Meghalaya with regard to information on government schemes and grants

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**Abstract**

**Objective:** To determine how the level of educational qualification acts as one of the factors for the rural masses in understanding and to be able to comprehend the messages and information provided by the Government through various media vehicles while seeking assistances for government schemes and grants to alleviate poverty.

**Methodology:** A descriptive, cross-sectional study design, collecting relevant quantitative and qualitative data from the respondents was conducted. A data on retrospective histories and experiences of poverty was captured to link how being literate is important to understand information through media vehicles. In this study a total of 808 households were studied. Setting: Rural communities of Khasi tribal people in three Blocks of East Khasi Hills District, Meghalaya i.e., Mawsynram Block, Pynursla Block and Mawryngkneng Block. **Results:** Poverty in communication is one of the root causes of economic poverty. One of the major causes of poverty is people not being aware of government schemes and grants. People do not watch, listen or read certain exhibits of the media because they do not understand the content, the language and what is being conveyed. The inability for them to apply these schemes is because they are not educated to such a level.

**Conclusion:** The rural masses failed to understand that illiteracy is actually a barrier between them and government’s information. Education was never given due importance. They are not able to comprehend the content of such messages nor are they able to follow up to attain these facilities. For those who rightly used the media channels, they confirmed that the media channels have facilitated the rural people with updated news and relevant information which have improved their daily lives. It may also be concluded that the habit of media choice depends largely on the educational qualification of the audience.

**Keywords:** Educational qualifications, understanding media content, grants

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**ADJUNCT FACULTY**

Malaria in Meghalaya: a systematic literature review and analysis of data from the National Vector-Borne Disease Control Programme

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**Abstract**

**Background:** Meghalaya, one of eight states in the northeastern region of India, has been reported to carry a high malaria burden. However, malaria surveillance, epidemiology, and vector studies are sparse, and no reviews combining these topics with malaria prevention and control strategies have been published in recent years. Furthermore, no analysis of surveillance data has been published documenting the changes in epidemiology following the first distribution of long-lasting insecticidal nets (LLINs) statewide in 2016.

**Methods:** A hybrid approach was used to describe the status of malaria in Meghalaya. First, a literature search was performed using the terms ‘malaria’ and ‘Meghalaya’. Second, data were obtained from the Meghalaya State Malaria Control Programme for 2006–2017 for analysis of trends. Data from 3 years 2015–2017 were analysed further by district and year to assess changes in malaria incidence and distribution following the introduction of LLINs.

**Results/conclusions:** Like malaria in mainland India, malaria in Meghalaya is complex, with both Plasmodium falciparum and Plasmodium vivax parasites in circulation, multiple Anopheles vector species, and reports of both unusual and severe malaria syndromes across all age groups. Integrated statewide malaria epidemiology, vector, and prevention and control data for Meghalaya are not readily available, and published studies are largely focused on a single topic or a single district or region of the state. Although malaria prevention and control approaches are available, (e.g. spraying, LLINs, personal repellents), their use and effectiveness is also not well characterized in the literature. Analysis of state malaria control programme data indicates that case incidence and related fatalities in Meghalaya have declined over the last decade. This could be attributed to changes in treatment guidelines and/or statewide distribution of effective prevention methods such as LLINs. Since the distribution of more than 900,000 LLINs in 2016, the malaria caseload has declined significantly in most Meghalaya districts, excluding the remote and geographically isolated South Garo Hills. Additionally, the proportion of adult malaria cases (15+ years of age versus children 0–14 years) in most districts was significantly greater following LLIN distribution, which likely reflects common lifestyle practices in these areas (e.g. adults working during night hours; small children in the households receiving priority for bed net protection). While reduction in malaria case incidence and related deaths is clear, the changes in malaria transmission and clinical manifestation have not been characterized. Routine epidemiology and vector surveillance combined with real-time data reporting are essential for the continued reduction and eventual elimination of malaria in Meghalaya.

**Keywords:** Malaria, Meghalaya, LLINs, epidemiology, Anopheles, complex malaria
Implementation of algorithmic techniques to facilitate design of solar power systems for Mauritius

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Abstract
The toolbox developed at Sandia National Laboratory (SNL), incorporates a range of well documented mathematical models, which provide scientific insight into a number of aspects involved in the design of solar power systems. Of first and foremost importance is the need to acquire the capability to generate pre-processor input for the toolbox. As part of this strategy, the Solar Position Algorithm (SPA), has been ported to evaluate parameters like zenith and azimuth angles for several geographical locations of Mauritius. Computations were carried out for two different seasons and for two locations, one at the University and the other at the 15 MW National Solar Power Plant, Bambous, Mauritius. The enormity of the task can be understood by realizing that we need both the solar position and weather data for several locations that would also vary with time and date. The importance of capturing such information on a high-resolution space (in order to generate Mauritius Energy Resource Map) is outlined in great detail. Experiments were carried out using solar module analyzer and the results obtained helped us to understand the pattern of variation of design parameters. This information is necessary for validation of the theoretical models. Sandia has implemented the package both in Python and MATLAB. To understand the fundamentals better, for the present, we are using the mathematical models, which are described in SNL documents, but in ‘C’ programming language. Engineering approach is more direct and an attempt has been made to generate insolation values for Mauritius, based on these formulations too, to serve some verification purposes. The full-scale implementation of SNL PV_LIB (Library of routines for simulation of photovoltaic energy systems), which provides a set of well-documented functions for performing a complete scientific analysis is likely to take at least another year or two.

Modelling the Effects of Wind Farming on the Local Weather Using Weather Research and Forecasting (WRF) Model

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Abstract
Exploitation of wind energy is rapidly growing around the world with large wind farms being set-up for the generation of electricity. It is reported in the literature that while converting the wind’s kinetic energy into electrical energy, the wind turbines may modify the transfer of energy, momentum and moisture within the atmospheric layers in the surroundings of the farms. In this work, an attempt is made to study whether the wind farm situated at Roches Noires (operational since January 2016), in the north-east part of the island of Mauritius, creates such changes within a sufficiently large space around the farm. The Weather Research and Forecasting (WRF) numerical model is employed for this endeavour due to the unavailability of measured weather data in regions close to the farm. The WRF model results are first validated with recorded meteorological data from several meteorological stations around the island and then simulations are carried out for the years 2015, 2016 and 2017. Analysis of results for two selected locations (one upstream and one downstream) around the Roches Noires wind farm demonstrates a slight decrease both in wind speed and precipitation, one year after installation of the farm.

Digital Transformation from Leveraging Blockchain Technology, Artificial Intelligence, Machine Learning and Deep Learning

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Abstract
These are exciting times as new software development paradigms are fast emerging to cope up with the shift in focus from “mobile first” to “AI first” approach being adapted by Google, Facebook, Amazon and others. This can mainly be attributed to the stability of the cloud computing platform and the developments in search capabilities which have extended from traditional text and web pages to achieving voice and vision recognitions relating to images and videos. Continued research focus has brought the error rate in image recognition by machine to converge sharply with that of the human. Apart from developments in big data analytics, artificial intelligence, machine learning and deep learning, breakthrough in peer to peer distributed ledgers with a blockchain technology platform, which incorporates multiple levels of strong encryptions, have created massive developmental interests. Most of the “popular apps” that we use today, are being built using AI algorithms. To achieve this, changes are being incorporated to computational architecture to make them compatible with “AI first” data centers equipped with AI driven features. Tensor Processing Unit (TPU), which powered Google’s developments in ML and AI, has now become part of cloud computing service. Anticipating cost related issues, new hardware developments are focusing on moving from the cloud to the edge with the new “Edge TPU”. Digital transformation is further augmented by the fact that block chain platforms, which are built on de-centralized tools and technology, are exhibiting greater maturity by the day. The paper highlights several block chain applications to deliver on several of the promises. The paper also discusses the fundamentals of Neural network to demonstrate how well these concepts that are incorporated in deep learning have decreased error rates by tenfold compared to previous technologies.
SECTION II

Earth to find out their principles of thought if we only care to delve into archives or to excavate deep into the strata of the visible in the sand of time. Hence, it is not yet necessary to kick in the minds and hearts of the Khasi people especially in the villages, and the footsteps of the ancestors are still visible in the sand of time. The basic principles of the Khasi thought are still alive and before man.

The basic principles of Khasi thought like in all other peoples, deal with all aspects of life and human existential experience. The Khasis always clothe their philosophy with stories and fables which are linked with spiritual reality in one way or the other so that it would be easier to remember and to show that their philosophy or system of thought is built in truth before God and before man. The basic principles of the Khasi thought are still alive and kicking in the minds and hearts of the Khasi people especially in the villages, and the footsteps of the ancestors are still visible in the sand of time. Hence, it is not yet necessary to delve into archives or to excavate deep into the strata of the earth to find out their principles of thought if we only care and spend time and attention to find them.

In the principles of Khasi thought, there is ka jinggewthuh (intellect), ka nia (reason), and ka jingsngewthuh (intuition). In any healthy system of thought there must be a right combination of these three faculties of human knowledge and experience in different degrees, and for different purposes. The Book is written in the Khasi language, and it covers the basic principles of Khasi thought and culture in the following chapters:

1. Khasi epistemology
2. Concept of man and the cosmos
3. Concept of God and spiritual beings
4. Principles of the Khasi matrilineal clan system
5. Principles of Khasi marriage
6. Religious thought and belief
7. Traditional spiritual healing
8. Principles of the Khasi political system
9. Concept and principles of covenant, right and justice
10. Principles of Khasi Judicature
11. Philosophy behind the Khasi sport of archery

Correcting Imbalances and Empowering Women in Governing Boards of Educational institutions in Meghalaya State, North East India

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Abstract

In-depth interviews of chairpersons and Chief Executive Officers (CEOs) as well as a representatives of the governing board members in a random sample of 36 church-operated educational institutions in Meghalaya state of northeast India, revealed wide gender imbalances and gross under-representation of women in the governing boards. While governing boards impact student performances, they could have been better with more women on the governing boards deciding on quality of staff recruited, resource allocations, additional facilities and matters of discipline. Correcting these imbalances will be a challenge but urgently needed taking advantage of the matrilineal society of Meghalaya. Several suggestions are made and a good reference list provide.

Keywords: Governing boards, educational institutions, gender imbalance, Meghalaya, India

Matrilineal, Masculinity and its implication

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Abstract

This paper aimed to understand the Khasi matrilineal social system and its impact on masculinity in Khasi men. The qualitative study was conducted in Shillong and three rural communities. The participants, men and women, were in
two age categories: 20 to 45 years and above 45 years, older and younger generations.

The respondents described the changes in Khasi society from the decline in the clan structure to nuclear families to the diminution of the role of the maternal uncle, whose roles have been taken over by the father and the Church. Inheritance and lineage were felt to favour the woman.

In the nuclear family, responsibility is placed on the father but without patri-lineage or shared lineage, i.e. domestic responsibility without status. The traditional concept of masculinity such as khatarbor (of twelve strength) has been lost and modern familial arrangements have not substituted for this loss. This has led to low self-esteem among men and social problems like abandonment of wives, alcoholism and drug abuse.

Keywords: Matrilineal, lineage, marriage, maternal uncle, masculinity, Khasi.

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Indigenous Discourse in Science Fiction
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Abstract
Science fiction defined as “hardcore realism” emphasises the seriousness and significance of the genre. It also exposes the general erroneous belief that science fiction is mere fantasy and escapist. A closer study of science fiction shows their acute awareness of the social conditions, thoughts and philosophies of their respective times. As for the theme of indigeneity or the occupation of an indigenous populace, it is interesting to note that one of the earliest, recognised science fiction books actually takes this subject matter head on. War of the Worlds by HG Wells was first serialized in 1897 and published as a book in 1898. Wells makes clear that his tale of Martian invasion is to be understood, as a critique on the evils of imperialism. Imperialism, particularly as practised by the English. Moving forward to present day, Science fiction still carries forth this tradition of colonization and its effects on indigenous races with tales of alien invasion of earth or human settlement of alien worlds. Indigenous futurism looks at how Indians or indigenous people in general are always excluded from a vision of the future or modernity in science fiction. Often assigned the role of the ‘noble savages’, indigenous races have traditionally been romanticized as objects of rustic, simplistic innocent that needs saving or protection by the colonizer. One of the main characteristic of science fiction is that it presents limitless possibilities and this has always been one of its greatest appeals. Even as an instrument for speaking for the minority or the ‘other’, it gives opportunities that perhaps conventional literature cannot.

Keywords: Science fiction, indigenous, futurism
SECTION I
ABSTRACT - JOURNAL, CONFERENCE (FACULTY, PHD SCHOLARS & ADJUNCT FACULTY)

SECTION II
SYNOPSIS (BOOK, BOOK CHAPTER)

SECTION III
Articles (Newspaper, newsletter and Magazine)

SECTION IV
ABSTRACTS AWARDED ON UNIVERSITY RESEARCH DAY 2018

SECTION V
ONGOING RESEARCH
- FUNDED EXTERNALLY
- SEED GRANT

SECTION VI
CONFERENCES CONDUCTED
Meaning in life: Mizo women
Debbie Zothanpari
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Why meaning! Meaning in life has been consistently linked to overall well-being. Problems which are not pathological arise out of a sense of meaninglessness that may take a variety of forms: a general dissatisfaction with their life, feelings of uselessness, low self-worth, an emptiness resulting from lack of strong commitments to anyone or anything; or the reverse as in being overwhelmed with commitments that appear to have no unifying purpose and which fail to provide, for all their activity, any significant meaning or value.

According to a renowned psychologist Martin Seligman the reason for today’s high depression rate can be attributed to a loss of meaning. It was Seligman who raised the question of what makes life worth living in 1990. Human beings, as far as we know can think, dream and are the only organisms that contemplate and wonder why and think about our thinking. It is a natural phenomenon for individuals to question why they exist and what is the meaning of their existence; this helps to make sense of our lives and that our lives matter.

Theorist have said this develops our understanding of who we are, what the world is like, and how we fit and relate to the grand scheme of things. So the question of Meaning in Life involves deep self-probing questions such as “Who am I?”, “Why am I here?”, “What is my role in this universe?” Pondering on meaning in life helps us discover our true nature and help us develop meaningful goals and make us experience the process of moving from bondage to liberation.

Research has shown a strong relationship between the experience of meaning in life and psychological well-being. Meaning may play a protective role in physical health behaviours (e.g. drug use, sexual health, physical inactivity and diet). Research has shown that meaning in life is critical to reducing suicidal trends in youth. People who present a consistent meaning of life are more resilient against life stressors, feel that their lives are more optimistic, have higher levels of self-esteem. People with a weak meaning of life seem more vulnerable to emotional problems, and more likely to succumb to feeling of hopelessness.

Traditionally for women in midlife, menopause was seen as a natural event of aging, being stereotyped with change in appearance, there is decrease in work capacity, hopeless feeling, prone to poor health which assumes that the midlife transition is one of a state of deficiency. Negative aspects has been the focus for women in their midlife. Women have been poorly understood medical with menopausal transitions of hot flushes, osteoporosis, heart disease, estrogen replacement therapy, depression, empty nest and other midlife crises. There was less understanding on the wealth of new opportunities that this group of women have.

A recent study done on Mizo women in midlife aged 40-55 years, found having a hobby, having an income, having high education, religion, family relations and positive postmenopausal experience, give meaning in life to the women. For these women menopause is not considered as a threat but a natural event. Hobbies have a way of relaxing and calming the body and mind. Activities like reading, traveling, gardening, farming and also being involved in ventures such as training and mentoring marginalised women who were HIV positive through assisting in setting up small scale businesses give meaning to the women.

Having a personal pay check and professional identity may be important for women in this age group as they evolve and reflect on their lives. Meaning may be found in the high social status and recognition that accompany higher education in the Mizo community, as the nature of occupation pursued following higher education is likely to be meaningful, or education cultivates a way of thinking and living that increases meaning in life. For Mizo women this is a paradigm shift from past traditional roles of marriage and staying at home to raise children and care for the family.

Activities relating to religious conviction and spiritual well-being provides purpose in life. The thought of death makes one reflect more on their life meaning and the future. Mizo women engage in self-reflection and self-exploration and looking beyond the present and imagine the future and find ways to balance what is important in their lives, leading to renewed energy and optimism about the future. There is high search for meaning among Mizo women, it’s not that their life is devoid of meaning rather, there is continuous exploring of avenues to enhance meaning in their lives. As one woman shared, “Humans keep changing as long as we live in this world this will never end… in our daily life there are things that we need to get rid of, we need to dispose off”.

Family is significant to having meaning in life as family provide the emotional support. As we can see midlife is seen as time for possibilities and not a crisis in the lives of the Mizo women. It points to the possibility of a new beginning, to renewal and this renewal can happen in the second half of life.

Viktor Frankl a survivor of Nazi concentration camp and later who founded a form of therapy called Logotherapy argued that people function best when they perceive a sense of meaning and possess a life purpose, a unique mission to strive for throughout their life. Frankl wrote, ‘what matters therefore is not the meaning in life in general, but rather the specific meaning of a person’s life at given moment’. Nietzsche, a German philosopher said, ‘he who has a why to live can bear with almost any how’.

We can conclude by for Mizo women search for meaning does not mean there is no presence of meaning, that presence does not mean an end all, but that life is ever evolving and changing. Prolonged effort of searching for meaning may be united harmoniously with the outcome of greater presence of meaning. Mizo women today in their midlife are active and vibrant quite unlike the cultural stereotype that exists that see midlife women as unattractive, menopausal, frustrated and depressed.

Research has established that the midlife years for women may begin a process of increased energy, independence, freedom, and psychological growth. It is a phase of life for women described as a time of finding comfort with oneself and as a time of gaining confidence.

Family Planning: Should men be involved?
Dahunkaru Suchiang
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There is a large unmet need for contraception in Meghalaya. Even though majority of the people were aware of the various contraceptives, yet evidently, religion was found to influence the attitude of many. It was felt that there is an urgent need to increase male involvement in family planning decision making.

“Planning is bringing the future into the present so that
you can do something about it now” Alan Lakem.

Every individual has the right to make his or her own choices relating to sexual and reproductive health. The ultimate goal of reproductive health program is to ensure cost effectiveness, quality and sustainability. Reproductive health and family planning play key role in saving the lives of newborns and children. Family planning helps women space their next pregnancy because such spacing, children are more likely to survive their infancy and be healthier. Using family planning methods such as condoms, pills, intrauterine device (IUD), injection, emergency contraceptive, sterilization prevent mothers from anemia and other complications of pregnancy and help them to spend more time with their children which in turn it will contribute to the overall development of the child (USAID, 2012).

Yadavar (n.d) stated that female sterilization continues to be the most popular method of contraception among Indians where 75% of the modern family planning methods are used by female and only 0.62% of male sterilization share in family planning. The National Family Health Survey-4 (2015-2016) indicated that the use of any family planning method in Meghalaya is 24.3% with female sterilization accounting for 6.2% while male sterilization stands at 0.0%. It also shows that there is a large unmet need for contraception, which is 15.3% for birth spacing methods. Use of oral contraceptive pills by woman is 11.7% and using of condoms is 3.1% in urban and 0.9% in rural.

An empirical study was conducted in one of the villages in Mawkynerew Block of East Khasi Hills District using descriptive research design since the researcher wanted to know the prevailing status of contraceptive use among males. A total number of 65 male respondents participated in the study.

The main objective of the study was to assess the level of awareness and examine the attitudes of men towards utilization of various contraceptives. Through the interviews using a semi-structured interview schedule, the researcher was able to gather credible information from the respondents. The findings from the study revealed that 81% of men were aware about the different methods of family planning, such as copper T, male condom, female condom, pills, intrauterine device (IUD), injection, emergency contraceptive, sterilization. Even though majority of them were aware of the various contraceptives, yet evidently, religion was found to influence the attitude of men which led to reluctance in using contraceptives.

As empirically shown in the study, 50% of the respondents said that it was against the will of God and it is a sin to use birth control measures and in fact stated that giving birth is a blessing that God has showered upon a family. They believe that when God bless them with children, He sends along with them a bag of rice. On the question of the spouse using contraceptives, 83% of the respondents said that they did not want to suggest their partners to use contraceptives simply because they believed that resorting to such usage would affect the fertility of their spouses and would eventually take time for the spouse to get pregnant. Further deliberation with the respondents in the form of interviews revealed that men never get proper education and accurate information regarding utilization of contraceptives which result in the thinking that contraceptives are less important in their family life, growth and development.

Can we Expect men to participate when they neither receive proper knowledge nor providing services directly to them?

Family planning allows people to attain their desired number of children and determine the spacing of pregnancies. It also enables women who wish to limit the size of their families and to make informed choices about their sexual and reproductive health. Additionally having smaller families allow parents to invest more in each child (Hesketh & Tomkins, 2003).

However, in Meghalaya large family is still a common practice. Khongji (2013) highlighted that women are decided for large family because still hold their cultural values. Chatterjee (2018) mentioned that large family affects the lifestyle of family in which the family cannot satisfy the needs of the children and their basic needs which also in turn affects the health of a child in the form of anemia, underweight baby, malnutrition and other complications. He also stated that large families, especially those belonging to low income groups, affect not only the health of the children but also the health of the parents. A mother of a large family is at higher risk of several physical health problems, low birth weight, morbidity and mortality rates are higher in large families. He concluded that large sibling families bring health, nutritional, psychological and social disadvantages.

Looking at the effects, is it a sin to use contraceptive?

In order to bring overall development and wellbeing of women, children and family as a whole, can it be justified that only women should utilize contraceptives since they are the ones who reproduce?

In the study conducted recently, 50% of men said that both the spouses should share responsibility in using contraceptives. Based on the major findings of the study, it was felt that there is an urgent need to increase male involvement in family planning decision making. Men-friendly programmes such as workshops, seminars and counseling should be put in place to educate and to change the mindset and attitude of men toward utilization of contraceptives and if life skill programme on reproductive health can be included for both male and female while they are in high school or colleges, the same will be more benefited and effective.

The findings from the study justified the informed and conscious participation from the men in terms of family planning and steps in the elevation of promoting planning in terms of family at the community level. Inter-agency Gender Working Group (2009) stressed that unless men are involved, family planning cannot be successful and better health and well-being of the family will remain slow.

This statement supports the major findings which hold true in the context of the area where the current study was conducted which also applies to the entire state of Meghalaya.

(The writer is a student studying Master of Social Work in Martin Luther Christian University, Shillong)

Moral values in the Khasi community
Lari Sara Kharwanlang and Marbabangi Syiemlieh
Published in Meghalaya Times on August 22, 2018

Moral values are a set of principles or standards which help us evaluate what is right and what is wrong. Usually considered as the roots of good character and in this way an individual shine in the society with his/her strong moral base and character. Moral values reflect the important basis of our society. A society is destined to deteriorate when people start losing morality and do not give importance to ascribed values. Just like a flower is incomplete without its fragrance,
and individual is incomplete without having moral values. A plant needs soil, sunlight, water to maintain; similarly, a person needs moral values to sustain himself or herself in the society (Kaur, 2011).

A good person is one who has moral values and he/she is seen as someone who is positive, cheerful, and respectful and is always ready to help others in need of help. They are also honest, loyal and trustworthy. In addition, they are people who can be depended on and who are able to help or take responsibility for themselves and others when help is required. By having good moral values people can interact with others in a good manner where they would give the respect to others or they would interact by respecting others in a society with a certain level of success. When treating others in a way that assures good manners and dignity we can set an example to others and in this way, others will also treat us the way that we want them to treat us. Good personal values help an individual to make decision and it is a principle which has passed down through our great-grandparents and it has also been proven to be valuable in modern times as well. It is through good values that make an individual to behave in good manner thereby leading people to have a positive interaction in the society (Pitlane, Magazine, 2018).

In the Khasi community, the concept of moral values is highly regarded as an important aspect in one’s life and in the process of socialization. The Khasi behaviour and the Khasi way of life go hand in hand. One cannot have the Khasi mode of life if they do not have the Khasi behaviour and vice-versa. Khasi life on the other hand also denotes qualities which are exhibited to the outsiders which are deemed to merit the Khasi nature which a person possesses and does it with the unique characteristic befitting the Khasi behaviour. Moral values are significant as they keep or allow individuals to have and strive to achieve better relationships with the family members, the neighbourhood, and the community as a whole; simply because values sustain the family and the community as units. It also helps to maintain unity and solidarity with one another towards any danger from external forces (Kurbah, 2012). For instance, parents, elders, uncles and so on teach a child on how to behave and learn certain values and principles that are acceptable and expected in the society. These concepts of values has been passed through generations from parents, elders, uncles and so on and it is considered to be one of the most important founding principles in Khasi society and is considered a must where each and individual should follow in order to live a worthy life according to the will of God or Ka Mon U Blei. This is being manifested in reality where there are evidently very rare cases of cheating, theft, robbery, raping and so on because all are conscious of their own destiny of being good and bad (Kurbah, 2012).

A recent study was conducted to measure the moral values practiced between two generations of people of twenty years differences. The study tried to elucidate the level of awareness and practices of moral values of adults who presently are in the age group of 30–33 years and children who presently are in the age group of 10–13 years. The methodology used was qualitative research in which a scale was used. There are six moral values that were identified to measure and they are simplicity, forgiveness, self-discipline, honesty, respect for others and tolerance.

Through the study, it was found that the adults are more aware and practiced these moral values during their childhood days as compared to children of the present generation in all the six domains. The rationale behind this is as follows:

**Simplicity:** The adults never had such inferior feeling during their times whereby they would judge their friends by their looks, status or fame but they would rather be friendly to everyone and have a feeling of unity or oneness. On the other hand, children of the present era would not like to mix with others who come from a low family background as they would want to be friends or mingle with children who are at the same standard of living.

**Self-discipline:** The adults expressed that during their days, they were taught by their parents to be independent and were not being spoon fed but they have their own roles and duty that they need to complete which was not seen or expressed so much on children of the present generation.

**Honesty:** Parents, great-grandparents or elders would have time and also take the responsibility to keep an eye on their children on the activities that they do on an everyday basis. On the other hand, parents in the present generation are too busy, stressed or frustrated with their work where they do not have time to teach or correct their children in all imaginable ways, even between what is deemed to be right and wrong. Another factor contributing to this, is also majority of the families belong to a nuclear family in which the parents rely more on their maid or babysitter.

**Forgiveness:** There is a saying “Everything a child learns, it starts from home”. Hence, it was seen that in the past, parents understood the importance of holding a family together through rough times. Therefore, as parents or grandparents they did not show nor hold any grudges to others in the family but would rather forgive easily. Children in the present era are very observant in nature, and learned things through their parents’ activities. Children very often complaint that they come from a broken family when caught committing any delinquent act which denotes that families in the present era hardly hold on into their own traditional moral compromise.

**Tolerance:** Adults expressed that they do not have the feeling of inferiority as they would always agree with their parents and do what they were instructed or directed. Whereas children expressed less tolerance simply because the standard of living has change over the years in which parents can afford to give what the children wants which was not so with the adults during their times. This leads to children having lack of patience or the inability to wait for what they want or for what they need.

**Respect for others:** The adults looked up to the elders or parents in a way that they value them and also give and show a lot of respect to them. On the other hand, respect and regards, not only for family relations, but also for the societal set up seems to have degraded among the youth which is a serious concern. The respect shown and ascribed to parents seemed to have diminished over the years which are alarming. The concept of Kamai ia ka Hoh, Im Tip-Briew Tip Blei, Im Tip Kur Tip Kha should not be allowed to be rendered archaic in the present society. Children on the other hand, expressed less respect for others and they do not give much importance to the elders, parents or others as they are in a generation where they always want to put themselves first.

Laxity in moral values can have far reaching complications in any given society. When moral values are not ascribed to be important or ignored, eventual and corresponding corruption of values takes precedence thereby leading to a degrading society. In 1999, Meghalaya has not registered even a single case in terms of juvenile delinquency and same goes for the year of 2000 (Kumar, n.d). Drastically, however, the Meghalaya Times (June 14, 2018) reported that there is
an increasing trend of crimes committed by children such as petty theft, shop-lifting, pick-pocketing, trafficking of drugs and other banned substances which are on the rise in the state capital where even the minors, who have been addicted have turned traffickers in order to meet with their needs (Thomas, 2018).

As the years progress and with the advent of technologies, there is an increasing trend in crimes committed by juveniles. One of the major findings of the study is the fact that adult respondents expressed their allegiance and subscription towards moral values. Inference can be derived from this fact that the older generation had more allegiance towards moral values which resulted in positive attitude and behaviour towards the society which in turn can be attributed to nominal crimes committed by youngsters. Moreover, another conclusion of the present study is the evident lack of the children and youth of the present generation towards moral values which leads to rising crimes and associated anti-social behaviourisms. An important conclusion of the study is that when there is no continuity in the transmission of values, there will be corresponding increase in behavioural deviations among members of the society. The study established that the present generation express less moral values which resulted in crimes committed by younger generations who did not have any allegiance towards values.

The study established the fact that children in this present generation have less inclination towards values which in turn establish the fact that parents do not make attempts to instil in their children the value of morals. The findings from the study suggested that moral values are indeed guidelines that control the conscience of a society and adherence to such values will reduce the incidents of crimes and will definitely prevent children from venturing into the world of crime. It is only when moral values in the family, community and society fail miserably then the anti-social elements springs up. Kaur (2011) says that socialization of a child is incomplete without moral education due to the simple fact that through moral education a person becomes a true human being where he/she can live a life in happiness and also make others happy and can bring peace in the society as well.

The present study was designed to bring about an understanding of attitudes and perceptions on moral values among the Khasis. Apart from the proven Kamai ia ka Hok; Im Tip-Briew Tip Blei; Im Tip Kur Tip Kha already prevalent in the Khasi society, the zeal to achieve more as a society should be ascribed to. We should not hesitate to inculcate positive community approaches practiced by our fellow tribal communities where moral values are assigned utmost importance. The foreboding apprehension of the past generation and the adventurist nature of the present generation should be given the opportunity to converge where all opinions can be heard and harboured. Should we adhere to or follow the principles which have been set by our great grandparents or should we altogether ignore as archaic conceptions? At the cost of the society without values where society is full of hatred and so on. Parents and teachers should emphasize on imparting knowledge regarding moral values to their children in the present context. Moral values should be considered as a major subject in schools so that children may get the concept of morality and can practice it regularly. Children should be enlightened about the consequences of lack of moral values or degradation of moral values as it will affect an individual. Children are our future generation and if they are not aware about it then our future generation will not be aware about moral values; parents must keep in mind that they are the role models of their children and it is the duty of parents, teachers and elders to instil moral values so that we have generations of children and youths who can take up the mantle of leadership for generations.

(The writers are students of the Department of Social Work, Martin Luther Christian University)

Quality of life and Depression among the retired in Shillong
Banpynshngain Kharlukhi
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The geriatric population in the country is increasing rapidly and therefore there is a need to study more and understand about the quality of life and prevalence of depression among the elderly especially in the context of retirement where not much focus have been attributed. Working individuals come to a point where they have to leave their work and transition to a new way of life. Palmore (1971) also stated that there are many good reasons for retirement and some of the key reasons according to him are freedom form one’s work, the freedom of leisure to do the things that the person had longed to do such as traveling the world, pursuing his hobby, being involved for service in the community or simply just taking things easy. Additionally, Retirement offers the benefit of enabling additional time and vitality to go through with relatives.

The example of resigned grandparents filling in as sitters is just the most widely recognized. Retirees can utilize their time to invest more of their time with their adult children, far off relatives, resigned kin and companions (Hartman, 2017). However, various studies show that with retirement the quality of life of an individual deteriorates and also depression becomes prevalent after retirement. The Institute of Economic Affairs, United Kingdom also suggested that at first retirement may benefit the health of an individual by reducing stress and allow the individual to engage for other activities, but as time goes retirement may have adverse effects. The study also focused that retirement hikes the chances of a person of suffering from clinical depression by around 40%, and the person may have at least one diagnosed physical illness by 60% (BBC, 2013).

According to a Sociological Study onRetired Government Employees conducted in the Shimoga district of Karnataka by Kumar & Chandrashekar (2013) it was found that 76.08% reported having a reduced status in the family after retirement and only 8.20% perceived an improvement of status within the family.

A study was conducted in the Urban and Semi Urban areas of Shillong with the objective of looking at the Quality of Life and Prevalence of depression among the retired. A quantitative research design was adopted for the study and a sample size of 85 retired individuals 58 years and above was taken as the study population and were assessed using the “Older people Quality of life Questionnaire” and the “Geriatric Depression scale” (GDS).

In the Quality of life the domains of Physical Health, Life overall, social relationships, Independence, control over life, Home and neighbourhood, Psychological and emotional wellbeing, financial circumstances and leisure and activities were being assessed. As per the study it was found that Quality of life among the retired elderly in Shillong is high but certain limitations are there in financial circumstances where the
Jubilee celebrations are expressions of thanking God for the life and witness of the institutions or organisations. WACC celebrated its Golden Jubilee (50th anniversary) at Missionsakademie, Hamburg from 10-14 May 2018 along with the Joint Board of Directors’ meeting of the WACC-UK and WACC Canada. While I was preparing to give my presidential address to the Joint Board meeting and the symposium on this occasion, I remembered my thesis that I wrote four decades ago for my postgraduate degree in theology on the ethical significance of Sabbatical Institutions, imploring the meaning of Biblical Jubilee, which is not just a celebration of the life and witness of the people of Israel remembering God’s goodness on them, but an action filled with the meaning. Prophet Ezekiel refers to it as the ‘year of freedom’ (Ez.46:17), taking over the old laws from ancient Israel and applying them to the struggling Jewish community of his day. It is a reminder to the people of the need to extend liberation to those in the bondage of any kind, demanding to free the slaves was an expression of the deep-rooted conviction that God intervenes in history to set at liberty the oppressed.

Jubilee celebration of WACC in measured terms is what it had achieved during its 50 years of life are achievements of laudatory actions measured in terms of the number of people who have experienced the “Freedom of Expressions”, “Right to communicate”, in other words, giving voice to those who are deprived of their voices. I will not use the term “voice to the voiceless.” God did not create a person without voice, but it is human beings who are denying the voice to the people. The power of words is being taken away forcefully by influential people, politically, socially, culturally, economically, etc. Communication, the most meaningful gift of God, is taken away from people, making them powerless, due to human greed.

The symposium following a three-day meeting of WACC’s board of directors explored the significance of communication rights concerning the sustainable development goals, the importance of media monitoring on reporting immigration to advocacy work and the development of a communications rights charter. Dr Ellen Ueberschär, the former General Secretary of the German Protestant Kirchentag, and co-president of the Heinrich Böll Foundation in Germany rightly points out the changes from media monopolies and restrictions to new initiatives about digital values, and the challenges these present for WACC now and in the future1 WACC has become a powerful tool in the hands of people, a force which extends beyond the borders of any church or organisation. Through its members, it expressed that it is called to serve the people on the margins without prejudice, beyond its boundaries as ambassadors of goodwill, and to live in peace. Help them to taste the fruits of prosperity which are born of progress, during its mission of 50 years.

COMMUNICATION RIGHTS – WACC’S REASON FOR BEING

Although we are celebrating the 50th Year of WACC’s existence, its history goes back to the second world war during 1939-45 to oppose propaganda and misinformation in the mass media. Since then WACC has promoted the democratisation of communication, freedom of expression, and the right to communicate. It works to improve and implement communication rights everywhere, especially those of women, indigenous peoples, refugees, and people on the margins of society with its vision of “Taking sides…”

During the 1970s and 1980s, WACC supported the call for a New International Information Order (NIOO), coined at a seminar organised by the Non-Aligned Countries held in Tunis in 1976. This meeting came up with the firm affirmation to fight “for their liberation from all kinds of neo-colonialism and imperialist oppression”, identifying that the developing countries are “the victims of domination in

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developments in international relations seen against the background of technological progress and problems of communication in contemporary society. Amadou-Mahtar M'Bow, to undertake to review the main General Conference, instructed its Director-General, That same year, under the instructions of the UNESCO's Information and Communication Order (NWICO). Of communication and renamed it as the New World Countries, 1976: 25-26). Later recognizing the importance of communication and ethics and papers on specific aspects of communication. The outcome, published in 1980, was Many Voices, One World: Communication and Society Today and Tomorrow, whose slogan was “Towards a new more just and more efficient world information and communication order”. In response, UNESCO established the International Commission for the Study of Communication Problems, chaired by Seán MacBride. During its work, members of the Commission held numerous conferences, meetings, seminars, and discussion groups, and reviewed many documents, codes of ethics and papers on specific aspects of communication. The outcome, published in 1980, was Many Voices, One World: Communication and Society Today and Tomorrow, whose slogan was “Towards a new more just and more efficient world information and communication order”. In 1984, the international controversy over the call for a new order led to conflict between NWICO supporters (which included many Third World countries) and the US government and some of its Western allies. Following an intensive campaign of attacks by political, media-related and private sector interest groups, the USA, United Kingdom and Singapore withdrew their membership from UNESCO. By 1988, the MacBride Report had gone out of print and UNESCO appeared reluctant to rock the boat by republishing the report because its conclusions and recommendations had yet to be discussed or implemented. For this reason, and to strengthen its advocacy of communication rights, WACC stepped into the breach and permitted to reprint Many Voices, One World. The World Association for Christian Communication (WACC), as a pioneer of the Global Communication Rights Movement to advance the communication rights of marginalised communities around the world. Over the past 49 years, WACC has partnered with thousands of grassroots communities to promote communication rights in their local contexts while advocating for systemic changes in terms of communication-related policy and legislation at the national and international levels. People around the world lack a voice to address their inequalities. Due to a low level of media literacy or limited access to the media, they are deprived of relevant information and knowledge and are excluded from participation in decision-making processes, which constitutes the violation of human rights. These issues translate into a form of marginalisation that is often invisible to development actors and policymakers: poverty of voice, or communication and information poverty. Unless these hidden forms of poverty are addressed, economic and social poverty cannot be overcome. Therefore, communication rights should be integral to planning and implementing actions aimed at achieving sustainable development and positive social change. The noble prize winner economist and philosopher Amartya Sen was asked, ‘what was the most important thing that happened in the 20th century’. His answer was, “The rise of democracy”. However, he went on to say, “We must not identify democracy with majority rule. Democracy has complex demands, which certainly include voting and respect for election results, but it also requires the protection of liberties and freedoms, respect for legal entitlements, and the guaranteeing of free discussion and uncensored distribution of news and fair comment.” (What Are Democratic Values? - Colelearning.net. (n.d.). Retrieved from http://colelearning.net/cyp/unit3/page3c.html) WACC is uniquely placed to promote the concept and practice of communication rights to advance social justice by challenging discriminatory political, sociocultural, and economic structures with a firm commitment to supporting the rights of those who lack a voice to make themselves heard. WACC is needed because it takes an upright position between those who have power and those who do not by raising questions of access to information and knowledge and equitable and democratic access to communication platforms. WACC helps people and communities to speak out and heard. WACC is taking a rights-based approach to communication in prioritising accessibility and affordability of media to get the right information so that the marginalised and “least served” people in the society are empowered reducing inequalities. This helps in enabling communities with vulnerable groups to participate in decision-making processes, and it means monitoring progress in realising communication rights to hold governments and gatekeepers to account. In this respect, the link between communication rights and sustainable development has never been more explicit: traditional mass media, social media, and digital platforms can contribute to the creation of new public spaces for voices to challenge the social, economic and political structures that exclude people and communities. What WACC Does Today? WACC is a leader in the promotion of communication rights as a strategy to advance social justice, to alleviate poverty, and to promote gender justice. WACC is at the forefront of the global movement to gain recognition for communication rights and to democratise communications. It has put its Christian principles of Communication into practice by supporting thousands of grassroots communication initiatives in over 150 countries worldwide. WACC convenes and organises the Global Media Monitoring Project (GMMP), recognised by UN Women and other international bodies as a credible source of data about the representation of women in the world’s news media. That research has led to policy change in media houses across the globe.
WACC produces and publishes numerous resource materials on communication rights and communication for development, including the journal *Media Development* (quarterly since 1975), a series of No-Nonsense Guides, and a series of video clips.

WACC runs the “Many Voices, One World Foundation” and maintains the Centre for Communication Rights as a digital portal for resources that are freely available to social movements concerned with issues of justice and peace.

WACC is a transnational moral voice for equality, diversity, and plurality. It promotes the role that communication rights play in tackling the social and economic inequities that plagued the world to bring more excellent stability and peace to people and communities of all faiths and none. Without discrimination, it stands by its vision of “Communication for All”.

These achievements expressed in terms of installed capacity, and transmission of power to the best of one’s ability. Seen in the light of WACC, it has done an excellent job and deserved to celebrate the Jubilee. (Ref. Annual Report of WACC. [http://www.waccglobal.org](http://www.waccglobal.org))

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**MBOSE Question Papers and Critical Thinking**

*Iwamon Labo and Glenn C Kharkongor*


According to a news item that appeared in this newspaper on May 28, 2018, MBOSE is “planning to review the pattern of question papers for the board examinations”. Mr. Pravin Bakshi, the then executive chairman of MBOSE told The Shillong Times “that a move has already been made to set question papers that will evoke the creativity of the students”. According to him, “education is not memorizing lessons, but it should spark critical thinking”.

Bravo to Mr. Bakshi! I do not recall any MBOSE administrator speak about improvements in the school education system and these comments come as a breath of fresh air. Surely this will spark much needed reform in the examination pattern and provide a more meaningful education for our children in the state.

In this article we will first analyse the quality of the 2018 SSLC question papers of MBOSE. Secondly we will compare the pattern of MBOSE question papers with the 2017 CBSE Class X, and also the 2017 examination papers of the General Certificate for Secondary Education (GCSE) of the UK.

Mr. Bakshi has used two important adjectives for the word ‘thinking’: creative and critical. Creative thinking implies imagination, idea generation and inventiveness. Critical thinking means the ability to reflect, analyse and critique. While these qualities are different, both require elaboration, integration and synthesis. For both to be useful, they must lead to application and innovation, so that new ideas and tools can be developed.

But do school children have these intellectual abilities. According to Piaget’s Stages of Cognitive Development, a theory that all academicians are familiar with, the fourth and final stage is the development of ‘formal operations’. During this stage, which begins at age 11 years and continues into adolescence and adulthood, the young individual can form abstract concepts, use multiple variables in systematic ways and connect thoughts and ideas in creative and critical ways. Apart from abstract thinking they can also integrate their visual, auditory, kinesthetic senses and also comprehend the importance of attitudes, values and morality. In other words, children that appear for the matric examination had developed higher order mental abilities several years earlier.

The problem is that the educational system is not challenging enough and conventional examinations do not measure children’s ability or achievement in a valid and meaningful way.

### Pyramid of Cognitive Skills

A useful framework that captures levels of cognitive ability is Bloom’s Taxonomy, a tool that perhaps all teachers know about. It can be depicted as an ascending order of cognitive skills from simple recall to creativity.

Bloom’s Taxonomy is a useful tool to guide teachers in designing approaches to teaching-learning that develop higher order mental skills. It is also a tool that can guide the construction of question papers. If a student has higher order thinking skills then the examination papers must include questions that measure these higher abilities.

#### Mostly recall questions

Unfortunately MBOSE question papers seem to mainly measure recall ability, forcing students to memorise large amounts of material to pass the examination. A very small proportion of questions require the understanding of concepts and principles and only rarely are questions that need analysis, application, synthesis or creativity, included in the question papers.

We looked at MBOSE examination papers in the subjects of English, Social Sciences and Science to measure the proportion of questions that required recall, comprehension, or higher order thinking skills. See Table below. It was difficult to break up the marks in the table because Bloom’s levels were different between the Either and Or options, another deficiency of the question paper.

<table>
<thead>
<tr>
<th>Subject (marks)</th>
<th>Recall</th>
<th>Comprehension</th>
<th>Critical thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>English (80)</td>
<td>64</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Social studies:</td>
<td></td>
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</tr>
<tr>
<td>Geography (28)</td>
<td>16</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>Science:</td>
<td></td>
<td></td>
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<tr>
<td>Chemistry (28)</td>
<td>22</td>
<td>6</td>
<td>0</td>
</tr>
</tbody>
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In the question paper for English, which includes language and literature, the vast majority of marks was given to recall questions. Most of these recall questions required the memorisation of passages and facts from the prescribed texts.

In this section, one question was: Maria Sharapova reached the world number one position in women’s tennis on: (i) Monday, 22 August, 2005 (ii) Monday, 26 September, 2005 (iii) Friday, 22 August, 2004. It is difficult to understand the importance of this memorized piece of trivia, that too in an English examination.

In MBOSE, compared to the CBSE and GCSE, only a small fraction of the questions required comprehension and higher order skills. In the GCSE, the majority of questions tested higher skills. See the table at the following page:
Here is an example of a good question from the CBSE science paper: Water is an elixir of life, a very important natural resource. Your Science teacher wants you to prepare a plan for a formative assessment activity, “How to save water, the vital natural resource”. Write any two ways that you will suggest to bring awareness in your neighbourhood, on ‘how to save water’. In a GCSE paper, a picture was shown of a crowded beach and the student was asked to write an essay on how the beach could be protected from environmental damage.

The CBSE question papers use tables and diagrams and the GCSE papers also include pictures. In contrast none of the MBOSE papers have tables, graphs or diagrams. The chemistry paper does not even have a one line chemical equation, nor do the physics or biology sections have any graphics at all. It seems that the paper setters are neither serious nor inventive. This is reflective of a systematic malaise.

So what now?

A workshop should be conducted for paper setters to improve the mix of questions. This is an important first step and seeing the new pattern of questions, schools and teachers will be influenced to change the manner of teaching and preparation of students for the board exams. In anticipation of these changes, schools could be sent samples of model question papers before next year’s examinations.

An NCERT expert group on education of tribal students, has observed that the “school curriculum fails to take account of tribal cultures as autonomous knowledge systems with their own epistemology, transmission, innovation and power. The cognitively ethnocentric demands of concentration on and memorisation of the content of the text by ‘rote’, all prove problematic for SC/ST children. Testing procedures too are based on urban middle class values – the competitiveness and system of rewards that examinations represent is often culturally anomalous to Scheduled Tribe children who are brought up in an atmosphere of sharing.”

Board examinations aim to measure one-time performance. The main usefulness of this is to compare the result of one student with a large cohort in a cross-section manner. It would be better to profile the achievements of individual students by listing the competencies they have achieved, such as numeracy, problem solving and social ability. Perhaps MBOSE could pioneer these radical but relevant concepts.

With an education policy being finalised for the State, this is a timely opportunity for MBOSE to make long-overdue reforms in its factory approach to school education and examinations. Operation New Hope in Ladakh is a successful example of an indigenous approach to relevant education. Instead of the three ‘R’s, they have three ‘H’s: Bright Head, Skillful Hand and Kind Heart.

(The authors are from Martin Luther Christian University)

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Table II Higher order questions %

Here is an example of a good question from the CBSE science paper: Water is an elixir of life, a very important natural resource. Your Science teacher wants you to prepare a plan for a formative assessment activity, “How to save water, the vital natural resource”. Write any two ways that you will suggest to bring awareness in your neighbourhood, on ‘how to save water’. In a GCSE paper, a picture was shown of a crowded beach and the student was asked to write an essay on how the beach could be protected from environmental damage.

The CBSE question papers use tables and diagrams and the GCSE papers also include pictures. In contrast none of the MBOSE papers have tables, graphs or diagrams. The chemistry paper does not even have a one line chemical equation, nor do the physics or biology sections have any graphics at all. It seems that the paper setters are neither serious nor inventive. This is reflective of a systematic malaise.

So what now?

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(The authors are from Martin Luther Christian University)
“The Languages of Meghalaya” edited by G. N. Devy and Esther Syiem and published by the People’s Linguistic Survey of India in 2014, provides a comprehensive description of the formations and linguistic complexities of the Khasi language.

The tendency to map ourselves as a people and culture against Western norms shows our weak sense of identity and social insecurity. Why else are we obsessed with calling the Khasi Hills as the “Scotland of the East”, name our landmarks as “Jacob’s Ladder” and give our children Western (not even Biblical) names (mine is taken from Scottish). Even our Christianity is largely Western in its church architecture, ritual and clerical vestments.

The multi-talented Thomas Jones gave us much more than is generally known. The book “Welsh Missionaries and British Imperialism” published in 2012 and released in Shillong by the historian Andrew May is in a sense a biography of Thomas Jones. Being the great great-grandson of Thomas Jones gives the author a unique vantage point. Jones taught carpentry and other vocations and improved the distillation techniques of the local rice beer. While we may have moral stances about liquor, in his own country distillers carry no stigma. So maybe we should call Jones the “Father of Vocational Education”.

We are all familiar with Thomas Jones’s life of missionary service and literary contributions. He eventually fell out with the church by marrying an underage girl, got himself emmeshed in a business misadventure and fled for his life from the Khasi Hills. He was human, flaws and all, like all of us. We need not canonize him or exalt him on a pedestal that is higher than what he was. So by all means let’s celebrate Thomas Jones birthday but in constructive ways. Perhaps the same church that gave him a new gravestone may like to set up a vocational school in his name for orphans and dropouts. Or an enterprising businessman may come out with a rice beer named after him. I could drink to that!

Yours etc.,
Glenn C. Kharkongor,
Via email

Observe Meghalaya Mining Day
Glenn C Kharkongor
Published in The Shillong Times
January 14, 2019

Editor,

The Jan 12, 2019 issue of the Shillong Times carried a front page ad from the Department of Arts and Culture announcing various drawing and music competitions for Meghalaya Day to be celebrated on Jan 22, 2019. May I suggest that this year’s celebration be appropriately sombre in view of the mining tragedies in the state and the focus of the country on our environment. Short shift has been given to law and order, and there is barefaced defiance of strictures from the highest tribunals and courts of the country.

I commend the Shillong Times for its daily updates and commentary on this month-old human tragedy. The government just seems to be going through the motions of minimum lip service, hoping that the citizens will soon be distracted by other happenings and the state apparatus and actors can go back to business as usual. Caught wrong-footed between its own vested interests and mining patrons on the one hand, and necessity for compliance with statutory orders and moral propriety on the other hand, the government has lost its moorings.

Perhaps the situation can still be salvaged with a new attitude of remorse and reconciliation with the people, and for the chief minister to keep good faith on his promise of safe and environmentally responsible mining. Better communication and action on mining policy and plans must be demonstrated. The initiative lies with the government.

This situation must not be allowed to go away. I suggest to the Shillong Times to title their front page daily report with the number of the new day that the crisis has entered. Last Saturday The Hindu featured a full page titled “Meghalaya’s Rat Hole Traps”. The report and a video can be seen on the online edition at https://www.thehindu.com/news/national/other-states/meghalayas-rat-hole-traps/article25973337.ece

Those who may doubt the resolve of the courts, environmental agencies and civil society efforts would be advised to revisit the story of the Kudremukh Iron Ore Company Limited, one of the largest iron ore mines in the world, located in a bio-diverse area in Karnataka. It was shut down in 2006 for environmental lapses. Perhaps Meghalaya Day 2019 can be the beginning of a new era in responsible mining in the state. Will the government take the opportunity?

Yours etc.,
Glenn C. Kharkongor,
Via email

Judge, Judge Yourself!
Glenn C. Kharkongor
Published in The Shillong Times
January 21, 2018

Editor,

The reprinted editorial “Who Will Judge the Judges” (ST, Dec 19, 2019), is a timely reminder to the government, citizenry and the judiciary itself. It is written by none other than Fali Nariman, the Harvard-educated lawyer, who at the time of authorship was a practicing lawyer in the Supreme Court.

Since then he has been appointed to the bench of the apex court, one of the very few Supreme Court judges who has been elevated directly from the Bar. Having been both lawyer and judge, he has a privileged and authoritative position.

From this article it is eminently clear that there are no effective procedures to evaluate the performance or probity of judges. The policy of self-regulation has been shown time and again to be a dead horse. So journalists or the ordinary citizen has no recourse, when a judge does wrong. The accusation of ‘contempt of court’ is repeatedly misused and redress or remedy is well-nigh impossible. Even the most prestigious media houses usually give wrong-doing by judges a wide berth, knowing that charges of contempt are impossible to counter argue.

Journalists are soft targets. We expect them not only to report the facts, but also provide us with analysis and commentary. Politicians love to hobnob with prominent journalists but are quick to vilify the media. Trump’s meme of ‘fake news’ is a convenient slogan. The White House recently revoked the press pass of a CNN correspondent because he asked uncomfortable questions. Worse still, a journalist in Manipur has been imprisoned for a year for year for criticizing the state government. Even if he used offensive language, that is not cause for jail time. Patriotism is the last refuge of the scoundrel, according to Samuel Johnson, and some politicians
fit the bill by accusing critics of sedition. But we expect the judiciary to generally uphold the profession of journalism, as the fourth estate provides balance to the functioning of democracy. But thin-skinned judges sometimes dispense with propriety when their selfish and self-centered impulses are exposed. Journalists are hauled before the court, only to be berated and humiliated. The substance of the accusation is given a peremptory go-bye. Judges seem to be above the law.

Some are not averse to political ambitions. With the recent conviction of Sajjan Kumar, the role of Justice Ranganath Mishra is once again exposed. He presided over an inquiry commission that whitewashed the perpetrators of the pogrom that murdered 2700 Sikhs. After retirement he joined the Congress Party and was rewarded with a Rajya Sabha seat. Need anymore be said?

This oft-quoted aphorism by George Bernard Shaw comes to mind: “Every profession is a conspiracy against the laity”. Even the medical profession is called to account, “Physician, heal thyself”. It’s time we came up with something similar for judges.

Yours etc.,
Glenn C. Kharkongor
Via email

**Small-minded journalism**

*Glenn C. Kharkongor*

Published in *The Shillong Times*

September 27, 2018

Editor,

Just when we think that the quality of public discourse is changing for the better along comes an article like “A Bishop Franco in all of us”. In one fell swoop Mr. Prem Chandran has managed to stereotype and denigrate politicians, the media, the church, Christians, Muslims, Hindus and the youth of the country. Only a collection of Trump tweets could perhaps match this journalistic performance.

All right thinking people will sympathise with the nun. After all in most cases of sexual exploitation, a power hierarchy is at play. There are many examples of this: teacher-student, adult-child, boss-subordinate etc. What chance does a lowly nun have against a bishop? Yet Mr. PC (who is anything but), accuses the nun of being a consensual partner in her victimhood. It’s not satire or even black humour. It’s plain misogyny, the kind that we see every day, but do not expect from responsible journalism.

His conclusions are so simplistic and casual. Statements like, “Hypocrisy is inbuilt in the Indian psyche” dams the entire country. There is more, “Hinduism…sets itself against all acts of pleasure”, and “The mental growth of the youths (sic) in other societies, be it in the east or west is far higher (than Indian youth)”. “Muslim youths remain active till about midnight…Hindu youths, as I know, dutifully retire to sleep by 10 at night”. This know-it-all writer has no need of surveys, science or common sense.

There is no redemptive value in this article. He hopes to attract readers by putting Bishop Franco’s name in the title, something that he accuses the media (whom he calls ‘morons’) of doing. I can live with idiocy but not bigoted idiocy. Please blacklist this ‘writer’ or assign him some other topics.

Yours etc.,
Glenn C. Kharkongor

**Save NEIGRIHMS From Its Leader**

*Glenn C. Kharkongor*

Published in *The Shillong Times*

September 22, 2018

Editor,

I fully agree with Dr. Synrang, a young postgraduate student, whose poignant plea between the lines is to let him continue with his cardiology training so that he can get on with his professional career. Unfortunately, the administrative mess in NEIGRIHMS has not only ruined the reputation of this premier institution, it is also threatening to derail the education and aspirations of young doctors.

For the last decade I have been observing the ups and downs of NEIGRIHMS as an insider and outsider. From the vantage point of having been a professor in a medical college for a couple of decades and having many friends among the senior faculty of NEIGRIHMS, it is sad to see an institution of promise being so badly administered. Several years ago I was admitted to the hospital with a heart attack. I was quickly attended to, wheeled into the cardiac cath lab within minutes for an emergency stent placement, and given the best follow-up care that continues to this day.

It was the first time I met Dr. Animesh Mishra. As his patient in the ICU and thereafter, I was impressed with his clinical acumen, empathy, and leadership of the department. From the way he answers my questions, it is evident that his breadth of knowledge and experience also makes him a great teacher. He has set up a cardiology department that is second to none in the country and I refer all my friends with heart problems to him. We are truly fortunate to have this department in Shillong.

There are several departments of high quality in NEIGRIHMS. I have taken treatment in the urology department and in orthopedics. Because of the lab tests and other investigations that I have undergone I have a familiarity with the diagnostic departments. We in the Northeast can be proud to have such a hospital in the region.

From many accounts of people I closely know, I corroborate Dr. Synrang’s report. The director of NEIGRIHMS is evidently in need of leadership ability. Many senior faculty and departments are being vindictively victimized. From a lifelong career in medical institutions, we know that good doctors do not necessarily make good administrators. Given the longstanding and ongoing maladministration under this director, I urge him to resign before more damage is done.

Yours etc.,
Glenn C. Kharkongor
Via email

**The LGBTQ dilemma**

*Glenn C. Kharkongor*

Published in *The Shillong Times*

September 13, 2018

Editor,

The article by Rev Lyndan Syiem was a frank and straightforward articulation of the Biblical position on the LGBTQ issue. Perhaps many Christians will concur with his views. While some will defend a literal reading of the Bible, a case can be made for adapting its teachings to developments in science and social evolution. For example, in the Bible there are several stories of persons evidently afflicted with epilepsy. They were regarded as being demon-possessed and sometimes stigmatised and ostracized. Cure was attempted by casting out
Women ahead despite handicaps
Glenn C Kharkongor
Published in The Shillong Times
August 7, 2018

Editor,
I must applaud the two Khasi men who wrote convincing pieces in the Shillong Times yesterday. Mr Mohrmen’s authoritative article exposed the cultural contradictions in the KHADC Lineage Bill, while Ayner Parai’s article was practical in its approach and called for wider dialogue, which was so lacking in the run up to the passage of this Bill which violates human rights and the Constitution.

Labour workforce participation rates in the 2011 Census shows that males in Meghalaya lag behind the Indian average while females score at 10 percentage points above the national average, standing third in the country. This is despite inexusable social and health indices, unlike their sisters in Himachal and Sikkim, states which have very high gender indices, unlike their deprived sisters in Meghalaya.

Meghalaya has the highest fertility and birth rates in the country and the lowest use of contraceptives. This depletes the health of women and is demonstrated in a high maternal mortality rates and high prevalence of malnutrition in the children, among the highest in the country. Is it not men who are the main cause of these woeful statistics? On top of this, women in Meghalaya suffer the highest rate of abandonment in the country. In no other state do so many women have to shoulder the burdens of bringing up children as a single parent.

In spite of these handicaps, women have shown bold and brave determination and entrepreneurship as we see daily in the tea shops, pavement vendors and other enterprises. A much quoted study from the University of Chicago shows that women in matrilineal societies are more industrious and risk-takers compared to patriarchal communities. The study specifically looked at the Masai (in Africa) and Khasi tribes. Surely this is a matter of cultural pride for Khasis.

I commend the Shillong Times for the space given to debate on this important issue. However, we see hardly any contributions in favour of the Bill. Not much by way of cogent arguments or data-based research has come from supporters of the Bill. In the end this is just another attempt at patriarchal subjugation of women.

Yours etc.,
Glenn C Kharkongor
Via email

A Khasi Mother’s Perspective
R Jennifer War
Published in The Shillong Times
August 10, 2018

Editor,
A lot has been said and heard on the Khasi Social Customs of Lineage (Second Amendment) Bill, 2018. It is heartening to see a handful of Khasi men still respecting a woman’s freedom of choice and voicing their concerns through this newspaper. Kudos to the courage of these ‘Khat-ar-bor’. I am also grateful to my female compatriot for presenting some insights into the flaws of the bill. As a young working mother of three children, I cannot even accept the fact that this proposed Bill aims to rob my children of their Khasi identity. As mothers we have carried them for nine months in our wombs, breastfed them, had sleepless nights watching over them, worry about their slightest sneeze, cared for them and our world is a happy place when we come home to their little arms and smiles. All we pray for is their good health and happiness. Any parent ultimately will want to see their children happy and settled and for them to be with someone who respect, loves, cares for them and makes them happy. Instead of lecturing them or advising them over the identity of their life partner, we would rather spend our energy in giving them an education where they can be financially independent, empathetic human beings and ‘kiha tip briew tip Blei’. 
I am a proud Khasi woman belonging to the ‘War Nongbri’ clan. Whenever I meet people from outside the state and outside the country I would proudly explain about our matrilineal system, our clan and kinship ties and how we have certain privileges when compared to our female counterparts in the rest of the country. I would explain to them that there is less stigmatization of women. Women who bear children out of wedlock are not stigmatized and that we have the freedom to choose our partners (I hope and pray that this will not change for our children).

What appals me is how a group comprising of 29 or so MDCs can decide on behalf of the Jaidbynriew; decide on my clan’s behalf; decide on my behalf which ultimately means they decide for the future of my children! Is social and clan concurrence not required? We are not fools to be blinded, silenced and deceived in the name of protecting the Jaidbynriew.

I will not allow this Bill to coax me to disown my own children and grandchildren if ever they marry any person of their choice. I will always have my mynsiem kmie with me till the last breath I take. Let us not rob our children’s freedom of choice when we ourselves have enjoyed it thanks to the wisdom of our forefathers.

Yours etc.,
R Jennifer War
Via email

Unscientific Tribalism
Glenn C Kharkongor
Published in The Shillong Times
July 28, 2018

Editor,
Patriotism, or rather chauvinism, is the proverbial last refuge of the politician. Unfortunately for them it is an uncertain place for retreat. Ethnic purity, from which ethnic cleansing and other racial horrors emanate, is ultimately an attempt by men to control women’s reproductive rights and regulate women’s social and sexual freedom. This intolerable gender discrimination is explained (mansplaining) on the basis of maintaining racial identity.

If one imagines that there is such a thing as Khasi racial purity, it is just a fond hope. Very few ethnic groups are genetically pure. Only isolated groups like the tribes of the Andamans would have genetic uniqueness.

In recent years, numerous genetic studies have been conducted in Northeast India. This region has been a natural corridor for ancient migrations, where Australoid, Mongoloid and Caucasoid populations have crisscrossed over the millennia. The Austro-Asiatic Khasi were the earliest settlers of the region and from these early populations, succeeding generations migrated to South China, Southeast Asia and to Australasia. Maps of these migrations, based on genetic studies can be accessed on the National Geographic website.

An article in the journal Human Biology published in 2004 examined the genetic diversity of the various Khasi tribes: Nongtrai, Maram, Khynriam, Pnar, War Khasi, War Jaintia, Bhoi and Lyngngam. As the Lyngngam are culturally intermediate between the Khasi and Garo, blood samples were also drawn from Garo subjects. The results showed a high degree of admixture between the tribes. Indeed there was a high degree of genetic similarity between almost all the Khasi tribes and Garo individuals, rendering them virtually indistinguishable. The only outlier group were the War Khasi, whose genetic pool is relatively uncontaminated because of geographic isolation till recent years.

It is well-known that offspring carry the genes of both parents. The DNA of these genes come from the nuclei of the male sperm and the female egg. However there is a small amount of DNA present outside the nucleus of these cells located in a cell organ called the mitochondria. The male mitochondrial DNA is not transmitted to the child, only the mother contributes this type of DNA to the baby. So from generation to generation, it is only the mother that contributes to this continuity, irrespective of who is the father.

The National Geographic Genographic Project conducts genetic studies for any individual who sends in a sample of saliva. Recently, a prominent Khasi doctor got his DNA analysed and was surprised to nd out that his DNA showed ancestors from Nepal and China. He put the report on his Facebook page. It would be very interesting to conduct DNA studies on the honorable members of the KHADC. Without question it would show mixed ancestries of many kinds, just like for the rest of us.

In the end, culture is a garb we wear, foods we enjoy, festivals we celebrate and a worldview we share. Traditionally Khasis have been peaceful and inclusive, with cultural provisions to admit non-Khasis to the fold, unlike some tribes in the Northeast that have martial histories and exclusive traditions. So we should include everyone who identifies as a Khasi and is proud of this identity. To base it on marriage, or parenthood, or genes is a flimsy argument.

Yours etc.,
Glenn C. Kharkongor
Via email
SECTION I
ABSTRACT - JOURNAL, CONFERENCE (FACULTY, PHD SCHOLARS & ADJUNCT FACULTY)

SECTION II
SYNOPSIS (BOOK, BOOK CHAPTER)

SECTION III
ARTICLES (NEWSPAPER, NEWSLETTER AND MAGAZINE)

SECTION IV
Abstracts Awarded On University Research Day 2018

SECTION V
ONGOING RESEARCH
- FUNDED EXTERNALLY
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SECTION VI
CONFERENCES CONDUCTED
Assessment of types and quantum of Waste generation and its management at Iewduh market, Shillong
Wanlam Nongrum and Rahbelda Kharbani
Under the supervision of Dr. Kitboklang Nongrum and Mr. Evan D Diengdoh
Department of Environment and Traditional Ecosystems

Abstract
This paper deals with the status of waste generation in Iewduh market of Shillong city, East Khasi Hills District, Meghalaya. The Waste collection and disposal does not content with the amount of waste generated per day as result garbage are scattered everywhere. The study examines the quantification of waste in Iewduh market and to ascertain local people’s perception regarding its management system in the area. Data was obtained through pilot surveys, in-depth interview, questionnaires, field survey and measurement of waste and through secondary materials such as research papers, journals and articles. The study shows that biodegradable waste generate the highest amount in Lane four (basasohsaw) ie Section which sells vegetables and the least in Lane six (basakot) ie the section which sells books. The data also reveals that non-biodegradable plastic waste generates the maximum in Lane 6 and minimum in Lane five (basasohsaw to khibeiw) or section selling vegetables to the top most of the market. The study shows that there is an urgent need in the field of environment for improvement and enhancement of waste management in Shillong city as a whole.

An Exploratory Study to Understand Productive Aging in the Elderly Tribal Community of Dimapur, Nagaland
M. Mongvai Phom, Nukuzo Phesao and Merenchila Imchen
Under the supervision of Grace M. BasanShrieh
Department of Psychology

Abstract
Ageing is a natural phenomenon which is bound to every human being. Being productive, nonetheless, is subject to change in every individual determined by the attitude and way of living. The study is focused on understanding what determines productive aging in a retiree and how it assists the elderly to remain progressive. Despite ongoing awareness programmes and efforts, promoting positive conduct is found limited. As a result, the integration of these beneficial lifestyles into activities of daily living is found to be deficient. Hence, the lack of acknowledgement is seen as a drawback of institutions that cater to the elderly community.

The research conducted incorporated exploratory method emphasizing on the in-depth interview. The study interviewed and observed 50 retired government officials aged from 60-85, residing in Dimapur. A complete emphasis was given to individuals who were indicating lifestyle that suggested holistic productive aging. Hundred percent of the participants indicated that socialization was extremely important. The response reveals that it can motivate an individual in old age to engage in mobility and interaction. Furthermore, it was observed that intrinsic incentives such as contentment and feeling of security, autonomy and decision were rewarding in the act itself. Hence, if such areas are given due consideration, we may see an increase in productivity in the elderly community.

Keywords: Productive aging, elderly, tribal community.

A Case Study of the Prevalence of Sexual Harassment in the Private Sector of Shillong Region in the Khasi Community
Kit Kapoor War
Under the supervision of Melissa Kyndiah
Department of Psychology

Abstract
Sexual harassment at workplace is a manifestation of deep rooted patriarchy prevailing in the larger society encouraging power based discriminatory practices and in turn creating hostile work environments where women workers are vulnerable to experience harassment and abuse. In Meghalaya, the private sector is mainly located in Shillong and they employ around thousands of women. There is a lack of empirical studies which measures the working conditions and how it is related to the concept of sexual harassment and coping behaviours of the victims in the private sector of Meghalaya.

The aim of the current research study is to analyse the nature and frequency of sexual harassment experienced by the victim, organizational mechanisms to deal with sexual harassment, and consequences of sexual harassment on the victim-vocational, psychological, interpersonal and physical strain, the strategies (whether external or internal coping strategies) used by the victim to cope with sexual harassment and develop a training manual based on the findings of the study to help victims effectively deal with sexual harassment at workplace. The research study has adopted a descriptive and quantitative research design. Data has been collected from a sample of 60 female respondents (private sector employees) through structured interview method using structured, close ended, standardized interview schedules.

Findings reveal that there was low frequency (18%) of the prevalence of sexual harassment among the Khasi female employees interviewed for the research study out of which only 3% reported to have been personally sexually harassed while the rest 15% were witnesses of such harassment taking place. All the victims were below the age of 30 years of age at the time of the incident. The majority of the victims did not report such incidences to the grievance cells even though they knew of the availability of such services for them. The victims have employed varying coping strategies where such as anger (55%), confusion (27%) and many confronted (55%) their harassers and 27% ignored such incidences. This extends the study into developing the training manual to empower women to be assertive when faced with harassment in the workplace and a demand for businesses to establish internal complaints committees where sexual harassment can be reported and the victims are empowered to approach the internal complaints committee and seek redressed.

Keywords: Sexual harassment at workplace, Khasi women in private sector, Shillong region, coping with sexual harassment
Quality of life and Depression among the retired in Shillong
Banpyshnigain Kharlukhi
Under the supervision of Dr. Ardonister Lyngdoh
Department of Social Work

Abstract
The study was conducted to identify, assess the Quality of life and prevalence of Depression among the retired elderly. The study showed a negative co-relation between quality of life and depression Pearson’s r (-0.265). The relationship was also found to be statistically significant (p=0.01). Although the quality of life in the retired individuals was high but they lack in financial aspects pertaining to affording their wants and also they would like more contact with more people for companionship as well as to enjoy life. In the domain of depression the study found that helplessness, Boredom, Dropping of interest and being afraid that something bad will happen are the main findings. Although Mild and moderate depression exist among the retired elderly however the study encourages a more in depth study as to what is causing the feeling of helplessness, Boredom, Dropping of interest and being afraid that something bad will happen and whether it can be strongly associated with depression.

Keywords: Quality of life, depression, retired elderly, helplessness, boredom, companionship, financial aspects

A study on Male participation in effectiveness of utilization of contraceptives in Jatah, East Khasi Hills District
Dahunkaru Suchiang
Under the supervision of Nandaris Marwein
Department of Social Work

Abstract
This is an attempt through the research to “A study on male participation in effectiveness of utilization of contraceptives in Jatah East Khasi Hills District” Male involvement in family planning means more than increasing the number of men using condoms and having vasectomies, male involvement also includes the number of men who encourage and support their partner and their peers to used family planning and who influence the policy environment to be more conducive to develop male related programs. The objective of the study to assess the level awareness of men about contraceptive ,to find out the level of men participate in contraceptive ,to examine the attitude of men toward contraceptive and to identify the factors that influence male participation in contraceptive . The study was conducted in Jatah, Shillong. The problem which lead to the lack of men participate in utilizing contraceptive because they are quite conservative in which they do not want to use contraceptives as they believe that it is the will of God. Khasi community indicated that religion is very important for the fertility decisions of Khasi people living in rural areas. They felt religious beliefs impacted on the promotion of and low uptake of family planning. Some reasons is that they just know and heard but do not know how to utilize contraceptives especially those who are newly married and lack of the services available in the health centre which lead to the lack of participation of men in utilizing contraceptives and there is no specific programmed conducted to men in order to motivate and encourage them to practice contraceptives and also women should take responsibility in using contraceptives as they are the one who reproduce and rearing children .According to others studies found that there is similar problem which lead to the lack of participation of men in utilizing contraceptive among men in the country or the world as a whole. Increasing of communication among spouse is one of the important ways in order to increase male participation and the government should take steps on how to increase the men in utilizing contraceptive. Seminar, workshop should be conducted to men in order to change their mindset and to support their partner in utilizing contraceptives.

Keywords: Contraceptives, male, family planning, East Khasi Hills District
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ABSTRACT - JOURNAL, CONFERENCE (FACULTY, PHD SCHOLARS & ADJUNCT FACULTY)

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ARTICLES (NEWSPAPER, NEWSLETTER AND MAGAZINE)

SECTION IV
ABSTRACTS AWARDED ON UNIVERSITY RESEARCH DAY 2018

SECTION V
Ongoing Research
- Funded Externally
- Seed Grant

SECTION VI
CONFERENCES CONDUCTED
<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Name of the research project</th>
<th>Name of Principal Investigator and Designation and Dept.</th>
<th>Amount sanctioned (in lakhs)</th>
<th>Name of funding agency</th>
<th>Year of sanction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Applying principles of community based participatory research in developing a community mental health program (CMHP) in Meghalaya</td>
<td>Dr. Glenn C. Kharkongor and Dr. PSS Sundar Rao, Chancellor and Adjunct Faculty</td>
<td>Rs. 78.5 lakhs</td>
<td>Indian Council for Medical Research, New Delhi</td>
<td>2015</td>
</tr>
<tr>
<td>2</td>
<td>Prevalence of Subclinical vitamin A deficiency in children under age of 5 years (Pre School in rural Meghalaya)</td>
<td>Dr. Rennie O Lakadong and Ms. Laribha Dohtdong, Associate Professor and Assistant Professor, Department of Allied Health Sciences</td>
<td>Rs. 22.7 lakhs</td>
<td>Indian Council for Medical Research, New Delhi</td>
<td>2016</td>
</tr>
<tr>
<td>3</td>
<td>Alcohol use among tribals in three corners of India: prevalence and pilot studies*.</td>
<td>Dr. R Jennifer War, Dean Academics</td>
<td>Rs. 39.6 lakhs</td>
<td>Indian Council for Medical Research, New Delhi</td>
<td>2018</td>
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</table>

**SEED GRANT**

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Name of the research project</th>
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<th>Amount sanctioned (in lakhs)</th>
<th>Name of funding agency</th>
<th>Year of sanction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Factors influencing career development of high school and higher secondary school students in Garo Hills, Meghalaya</td>
<td>Dr. Maribon Viray and Dr. Linsay Murray Sangma, Psychology and Social Work</td>
<td>Rs. 25,000</td>
<td>MLCU</td>
<td>2018</td>
</tr>
</tbody>
</table>
SECTION I
ABSTRACT - JOURNAL, CONFERENCE (FACULTY, PHD SCHOLARS & ADJUNCT FACULTY)

SECTION II
SYNOPSIS (BOOK, BOOK CHAPTER)

SECTION III
ARTICLES (NEWSPAPER, NEWSLETTER AND MAGAZINE)

SECTION IV
ABSTRACTS AWARDED ON UNIVERSITY RESEARCH DAY 2018

SECTION V
ONGOING RESEARCH
- FUNDED EXTERNALLY
- SEED GRANT

SECTION VI
Conference Conducted
## CONFERENCES CONDUCTED
### DETAILS CONFERENCES CONDUCTED

<table>
<thead>
<tr>
<th>Title of Conference / Seminar/ Workshop</th>
<th>Organized by</th>
<th>Level</th>
<th>Venue/ Date</th>
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<tbody>
<tr>
<td><strong>Research Office</strong></td>
<td></td>
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</tr>
<tr>
<td>Workshop on <em>Research Methodology</em></td>
<td>Research Office</td>
<td>University</td>
<td>MLCU Hall January 24 - 25, 2019</td>
</tr>
<tr>
<td>Workshop on <em>Academic Integrity</em></td>
<td>Research Office</td>
<td>University</td>
<td>MLCU Hall January 22-23, 2019</td>
</tr>
<tr>
<td>Workshop on <em>Meta-Analysis – An Evidence-Based Medicine and Public Health Tool</em></td>
<td>Indian Institute of Public Health, Delhi in collaboration with Indian Institute of Public Health, Shillong and Research Office</td>
<td>National</td>
<td>MLCU Hall November 8, 2018</td>
</tr>
<tr>
<td>Symposium on <em>Intellectual Property Rights in the context of Traditional Knowledge and Biodiversity</em></td>
<td>Research Office in collaboration with State Council of Sciences, Technology and Environment (SCSTE), Bio-Resources Development Centers (BRDC)and North East Slow Food Agrobiodiversity Society(NESFAS), Shillong</td>
<td>National</td>
<td>MLCU Hall November 6 - 7, 2018</td>
</tr>
<tr>
<td>Workshop on <em>Qualitative Research Methodology</em></td>
<td>Indian Institute of Public Health, Shillong in collaboration with MLCU</td>
<td>Inter-Institutional</td>
<td>IIPHS November 26 - 29, 2018</td>
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<tr>
<td><strong>Allied Health Sciences</strong></td>
<td></td>
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<tr>
<td>Training Program on <em>Therapeutic Diet for Chronic Kidney Disorders (CKD)</em></td>
<td>Collaborated with North East Nutrition and Dietetic Association (NENDA)</td>
<td>Regional</td>
<td>Food Science Laboratory, MLCU March 30, 2019</td>
</tr>
<tr>
<td>Workshop on <em>Foldscope as a Research Tool</em></td>
<td>Organized by Foldscope project, DBT, District &amp; Local Research Station and Lab, Tura and S K N Sinhgad, College of Engineering, Pandharpur, Pune</td>
<td>University</td>
<td>MLCU November 24, 2018</td>
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<tr>
<td>Seminar on <em>Nutrition Awareness: Key to a Healthy Nation</em></td>
<td>Collaborated with Community Food and Nutrition Extension Unit (CFNEU), Food and Nutrition Board, Ministry of Women and Child Welfare, Shillong</td>
<td>Regional</td>
<td>MLCU Hall September 6, 2018</td>
</tr>
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</table>
## CONFERENCES CONDUCTED
### DETAILS CONFERENCES CONDUCTED

<table>
<thead>
<tr>
<th><strong>Computer Sciences</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Workshop on Data Mining</strong></td>
<td>Dept. of Computer Science</td>
<td>University</td>
<td>MLCU Hall February 25, 2019</td>
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<tr>
<td><strong>Seminar on Cyber Crime and its impact on Youth</strong></td>
<td>Dept. of Computer Science</td>
<td>State</td>
<td>District Central Library Hall, Jowai/ June 08, 2018</td>
</tr>
<tr>
<td><strong>Workshop on Emerging Trend in Computer Science Internet of Things - From Architecture to Computer to IOT</strong></td>
<td>Dept. of Computer Science</td>
<td>University</td>
<td>MLCU Hall May 24, 2018</td>
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<tr>
<td><strong>Workshop on Basic Electronics</strong></td>
<td>Dept. of Computer Science in collaboration with Dept. of Electronics, St. Edmund’s College, Shillong</td>
<td>University</td>
<td>MLCU Hall April 12, 2018</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Conflict Management and Peace Initiatives</strong></th>
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<tbody>
<tr>
<td>The Role of the Youth in Peace building (for the Dept of Music, MLCU)</td>
<td>Dept. of Conflict Management and Peace Initiatives</td>
<td>University</td>
<td>MLCU November 16, 2018</td>
</tr>
<tr>
<td>The Role of the Youth in Peace building (for PG AHS, MLCU)</td>
<td>Dept. of Conflict Management and Peace Initiatives</td>
<td>University</td>
<td>MLCU October 25, 2018</td>
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<tr>
<td>The Role of the Youth in Peace building (for MAPJ, MLCU &amp; BD IV of JRTS)</td>
<td>Dept. of Conflict Management and Peace Initiatives and John Roberts Theological Seminary</td>
<td>Inter-Institutional</td>
<td>JRTS, Mawklot October 8, 2018</td>
</tr>
<tr>
<td>The Role of the Youth in Peace building (for MBA &amp; M.Com students of MLCU)</td>
<td>Dept. of Conflict Management and Peace Initiatives</td>
<td>University</td>
<td>MLCU September 25, 2018</td>
</tr>
<tr>
<td>Seminar on Christian Response to the Prevailing Social Issues in Meghalaya</td>
<td>In collaboration Department of Theology and National Council of Churches India-NEI-Action Desk</td>
<td>Regional</td>
<td>MLCU June 6 – 7 2019</td>
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## Environmental and Traditional Ecosystems

<table>
<thead>
<tr>
<th>Event</th>
<th>Department</th>
<th>University</th>
<th>Location</th>
<th>Date</th>
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<tbody>
<tr>
<td>Meghalaya Round Table on Climate Change from Research to Renewal</td>
<td>Dept. of Environmental and Traditional Ecosystem and IMI</td>
<td>University</td>
<td>MLCU Hall</td>
<td>September 14, 2018</td>
</tr>
<tr>
<td>Khasi History in Stone: The Robin Laloo Memorial Seminar on Heritage and Legacy</td>
<td>Dept. of Environmental and Traditional Ecosystem and ICARE</td>
<td>University</td>
<td>MLCU Hall</td>
<td>April 10, 2018</td>
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</table>

## Economics, Commerce and Management

<table>
<thead>
<tr>
<th>Workshop</th>
<th>Department</th>
<th>University</th>
<th>Location</th>
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<tbody>
<tr>
<td>Workshop on career– Discover your dreams</td>
<td>DECIM</td>
<td>University</td>
<td>MLCU</td>
<td>March 27, 2019</td>
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<tr>
<td>Workshop on Academic Integrity</td>
<td>DECIM</td>
<td>University</td>
<td>MLCU</td>
<td>October 16, 2018</td>
</tr>
<tr>
<td>Workshop on Problem solving</td>
<td>DECIM and School of Business Design</td>
<td>University</td>
<td>MLCU</td>
<td>September 21, 2018</td>
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<tr>
<td>Seminar on Sustainable Livelihood</td>
<td>DECIM</td>
<td>University</td>
<td>MLCU</td>
<td>March 28, 2018</td>
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</table>

## Music

<table>
<thead>
<tr>
<th>Workshop</th>
<th>Organization</th>
<th>University</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workshop on The Blues</td>
<td>SOULMATE in Collaboration with the Department of Music</td>
<td>University</td>
<td>MLCU</td>
<td>August 1, 2018</td>
</tr>
<tr>
<td>Workshop on Afro Grooves, Jazz &amp; Soul Power</td>
<td>Department of Music</td>
<td>University</td>
<td>MLCU</td>
<td>June 12, 2018</td>
</tr>
<tr>
<td>Workshop on Song Writing</td>
<td>Department of Music</td>
<td>University</td>
<td>MLCU</td>
<td>April 20, 2018</td>
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</table>

## Psychology

<table>
<thead>
<tr>
<th>Seminar</th>
<th>Department of Psychology</th>
<th>University</th>
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<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seminar on Substance Dependence: Prevention &amp; Remedial Action</td>
<td>Department of Psychology</td>
<td>University</td>
<td>MLCU</td>
<td>August 2, 2018</td>
</tr>
</tbody>
</table>

## Social Work

<table>
<thead>
<tr>
<th>Workshop</th>
<th>Department of Social Work</th>
<th>University</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workshop on Introduction to Psychotherapy</td>
<td>Department of Social Work</td>
<td>University</td>
<td>MLCU Hall</td>
<td>November 22-23, 2018</td>
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</tbody>
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## Theology

<table>
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<tr>
<th>Seminar</th>
<th>Department</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seminar on Christian Response to the Prevailing Social Issues in Meghalaya</td>
<td>In collaboration with Department of Conflict Management and Peace initiative and National Council of Churches India-NEI-Action Desk</td>
<td>Regional</td>
<td>MLCU July 6-7, 2019</td>
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</table>