

## **Ecological amplitude and Environmental impact on Flora and Fauna including society of Mizoram People in North-East India**

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**Abstract:** Mizoram is a state which is unique as it boosts special attention to other parts of India due to its ethnicity and called state of special status. Among the seven sisters in Northeast India, it is the state which is adjacent to neighbouring countries like Myanmar (Burma) in one side and Bangladesh in another side. The geographical location is so varied even so remote that special attention should be made for special study or research to know more about the actual rituals, believes, attitudes, culture and temperament of the tribal community in distal part of Mizoram. The main object of the paper is to promote and grow interest among the people to do something on culture, environment and resource in near future.

**Keywords:** Mizoram, Ecology, Economics, Culture, Environment, Resource.

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### **I. Introduction**

Geographically Mizoram state shares its border with two countries, they are Bangladesh and Myanmar. It is also surrounded by the states of Manipur, Tripura and Assam states of Indian Territory. Almost 70% of its boundary faces Bangladesh and Myanmar. The 21087 square kilometers area of Mizoram lies roughly between 24.11° north latitude and between 93.26° on east longitude. The physical environment of hills fashioned the Mizo culture and the way of their living. According to experts the Mizo are of Assam Myanmar sub-group that branches from Tibeto-Myanmar group of the Tibeto-Chinese stock. Their linguistic affinities ascribe them a group of Tibeto-Myanmar but, their legends trace origin form Chhinlung i.e. somewhere in southern China. Due to recurrent disturbances and ethnic violence these people might have moved from north east of Tibet to Mizoram. Historians believe that the Mizos are a part of the great wave of the Mongolian race spill over into the eastern and southeastern India centuries ago. They came under the influence of the British Missionaries in the 9<sup>th</sup> century. This is the reason behind the fact that's why most of the Mizos are Christians. One of the beneficial results of the Missionary activities was the spread of education among Mizos.

The flora of Mizoram consists of brilliant green plantations full of different plant species throughout the year. The state has dense bamboo forests. Orchids are abundant in Mizoram. Epiphytic orchids are greater in number than terrestrial one. Some of the rare species of orchids endemic to Mizoram consist of fine foliage and bright flowers of great interest to garden lovers. The highest peak i.e. 2065 mt. high, Phawngpui Mountain (vast meadow), also known as blue mountain, a garden of rhododendron of arboretum and veitchianum species. The forest houses some of the rare varieties of orchids that are found only in this region.

The forest of Mizoram is inhabited by swamp deer, tiger, leopard, elephant and hoolock gibbon. Mizoram can boast of a variety of wild life famous Wildlife National Park and sanctuaries like animal population is accumulated mostly in the Dampa Sanctuary, established in 1976 at the north-western tip of Mizo hills. Available record show that a wide range of insects about 1000 species, 12 species of butterflies and moths, 20 of beetles, 13 of various types of snails and molluscus. Seven species of owls, 10 of pheasants, 12 of hawks and eagles, 11 of bulbuls belonging to 13 families, 9 of egrets and herons exist here. The wildlife includes sighting of mammals like black and wild bear, tiger, leopard, hoolock gibbon, Chinese pangolin, clawless otter, porcupine and mongoose.

### **II. Methodology**

During 23 days visit in Aizawl, capital of Mizoram, authors took various form of knowledge from literature, festival like Chapchar Kut, local people, teachers, professors, research scholars, researchers, resource persons of different institutions who have vast knowledge and working in their own institutes on culture, environment and resources. The training was conducted by UGC-Academic Staff College, Mizoram University, Tanhril, Mizoram. The theme of the programme was culture, environment and resources. Different knowledgeable persons delivered lectures there. They discussed on various themes such as belief, attitude, faith, customs, religion, morality etc. about different groups of people in the subcontinent like India, particularly on north-east India. The focus on the theme was 'Mizos' who have had their origin from a particular place of Myanmar (Burma), and their glorious development through the impression of Christianity. All the participants made special lectures on the same that is ethnicity and culture which time to time imposed by different ruler of the particular domain so basically on the basis of presentation and on the reliable sources available in the special

winter school classes. The present authors have gathered the knowledge in a common platform. They also collected samples, photographs, visited some places of rural Mizoram, studied well with ethnic people, some vegetation, natural resources and made the same for transferring knowledge in a crucial way. Participants of different districts had vast knowledge and the same transferred to our knowledge based data system, which ultimately helped us well to make such a resource material in a compact manner. For detailed literature study authors consulted available books and journals from the central library and the concerned UGC-ASC library of Mizoram University, Tanhril, Aizawl, India.

### **Mizoram And Ethnicity In India**

Tribes of Mizoram largely include four types of tribal communities. The tribal people of Mizoram largely include the tribes like Chakma, Pawi tribes, Ralte tribes and the Kuki tribes who travelled from upper regions of the continent. Chakma tribes are the most important tribal group of Mizoram who practice a combined religion of Hinduism, Buddhism and animism. The Chakma tribes, who range for about eighty thousand within the state of Mizoram, are largely influenced by the Indo Aryan culture which is reflected within their language. Largely they speak a language which is closely associated with Bengali. Along with Chakma tribes the area is inhabited by other tribes which include Pawi tribes and Ralte tribes. Pawi tribes are named after the place where they largely inhabit instead of the name of the clan which is the usual trend of the Tribal community. Ralte tribes are another tribal group which inhabit in Mizoram. This group is largely settled in the Lushai villages located in the northern provinces of Aizawl, capital of Mizoram, India. Himar is the most significant group among them who immigrated to the hills of Mizoram and got settled. Along with is the Kuki tribes are also found in the region that inhabit in the hilly regions of the land.

Mizos practice what is known as 'Jhum Cultivation'. They slash down the jungle, burn the trunks and leaves and cultivate the land. All their other activities revolve around the jhum operations and their festivals are all connected with such agriculture operations. There are three major festivals that the Mizos celebrate, they are Mim Kut, Pawl Kut and Chapchar Kut. Mim Kut which takes place in August-September in the wake of harvesting of the maize crop, is celebrated with great joy expressed through singing, dancing, feasting and drinking of homemade rice beer zu. Dedicated to the memory of their dead relatives, the festival is underlined by a spirit of thanksgiving and remembrance of the year's first harvest is placed as an offering a raised platform built to the memory of the dead. Pawl Kut is Harvest Festival celebrated during December to January. Again, a mood of thanksgiving is evident, because the difficult task of tilling and harvesting is over. Community feasts are organised and dances are performed. Mothers with their children sit on memorial platform and feed one another. This custom, which is also performed during Chapchar Kut, is known as 'Chawngnawt'. Drinking of zu is also part of the festival. The two-day is followed by a day of complete rest when no one goes out to work. Of all the Kuts of the Mizo, Chapchar Kut has emerged as the most popular and enjoyable, owing perhaps to the humorous stories of its origin and the favourable time when the festival is observed-Spring.

Mizos are fast giving up their old customs and adopting the new mode of life which is greatly influenced by the western culture. Many of their present customs are mixtures of their old tradition and western pattern of life. Music is a passion for the Mizos and the young boys and girls take to the western music avidly and with commendable skill. The fascinating hills and lakes of Mizo-land literally pulsate and resound with the rhythms of the sonorous songs of the youths and the twang of guitars everywhere

The Mizo people are known for their handloom and handicraft products which mainly include textiles, bamboo and cane works and basketry. The Mizo ladies are known as born weavers and they produce a wide range of textile products like puanspuon dum, puon pie, thangou puon, puon laisen, jawl puon, thangsuo puon, hmarm and zakuolaisen. Apart from textiles they also excel in items made of bamboos and canes like toys, hats, animal and fish trapscones, baskets, jewelry boxes, utensils, household items and smoking pipes. The smoking pipes are of two types namely the Vaibel and Tuibur pipes where the former made of bamboo is used by the men and the latter made of clay and bamboo is used by the women.

**Clothing:** The original garment of the Mizos is known as puan. They were used by men and women more or less in the same fashion. One has to see them to believe the intricate traditional designs woven by the Mizo women, born weavers who produce what can only be described as art on their looms. The Mizo have held on to certain patterns and mottos that have come down through the ages. These design have become deep rooted in their tribal consciousness and has become a part of the Mizo heritage. The unique value of Mizo PUAN comes from the personal involvement of the weaver, who with great labour weaves her dreams into each work and weft until every design has a story to tell. These traditional hand woven apparels are of different shades and designs without exquisite play of colour combination and intricate weaving patterns has been evolved. Some of the common clothing or puan are :-

**Puanchei:** It is by far the most colourful costume and is used by every Mizo lady.

**Kawrchi:** A distinctive blouse of the ladies

**Ngotekherh:** This traditional puan is worn round the waist originally it was a men's puan but now it is worn by men and women alike.

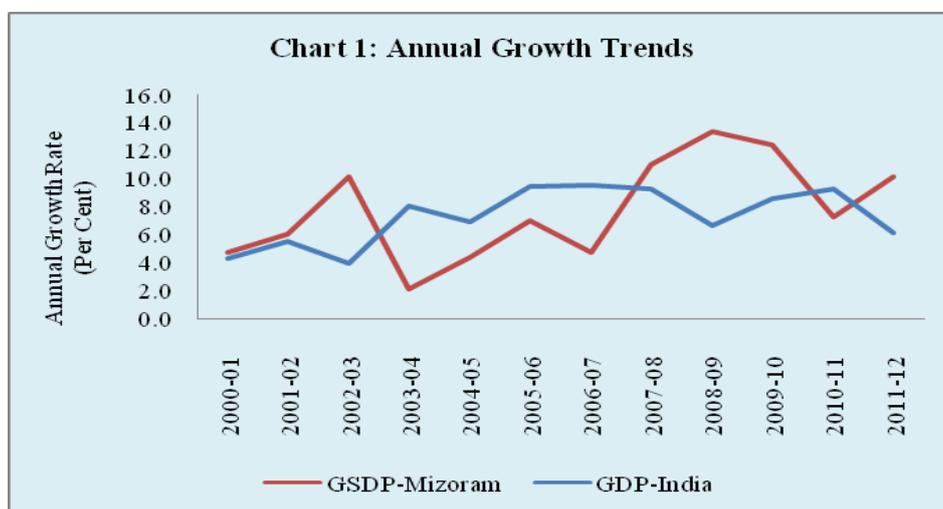
**Hmar am:** Originally this was a small hand woven cloth of handspun cotton and indigo dye.

**Cyhna Hno:** It is a beautiful embroidered silk puan of the Mara's. It is used by both men and women.

**Food:** Rice is the staple food of the Mizo's. They are primarily both vegetarians and non vegetarians. Fish is one of the most popular food of the people of Mizoram. The Mizo's are fond of dishes made of delicacies like bamboo shoots and ducks. Other favorite dishes include Misa Mach Poora, Panch Phoron Taarkari, which is actually a grilled preparation of shrimps, Dal with Eggs, Poora Mach and Koat Pitha. The Mizo's avoid oily food. Mustard oil is the most common oil used in cooking.

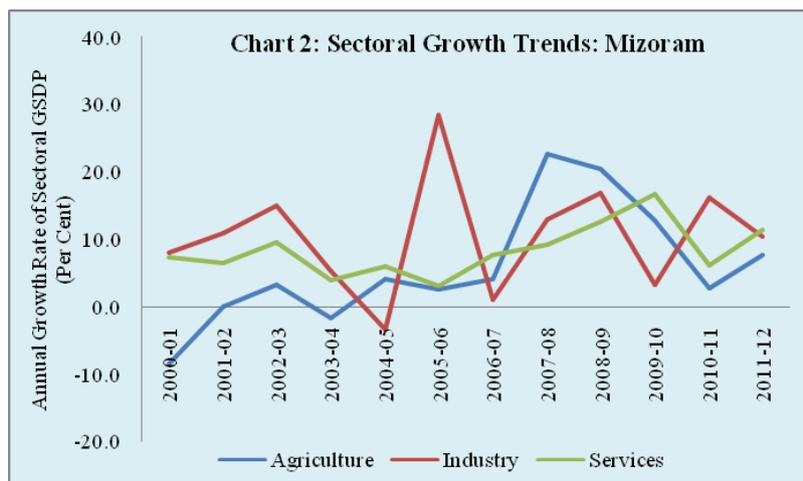
**Occupation:** The Economy in the state of Mizoram depends mainly on the agricultural sector as more than 70% of the people of the state are engaged in this sector. The climatic condition of the state is favorable for the growth of a wide variety of fauna and flora. The various kinds of crops that are grown in Mizoram are rice, cotton, oilseeds, pulses, maize, sesame, and sugarcane. The people follow the method of shifting cultivation which is also known as Jhumming method of cultivation. This sector has given a major boost to the Economy of Mizoram.

**Economy:** Mizoram Economy is based on agriculture, horticulture, forest products, industry, mineral, and tourism sectors. The gross state domestic product of Mizoram amounted to Rs. 3,410 million in 1990, in 1995 this figure amounted to Rs. 9,370 million, and in 2000 this figure stood at Rs. 17,690 million. This shows that the Economy of Mizoram has grown at a very slow pace. But in the year 2012-13 it stood at Rs. 8,091.86 Crore. Mizoram's economy grew by 10.37 percent in real terms in 2012-2013 over the previous year against the national growth rate of five percent, according to the economic survey presented in the Assembly by state Finance Minister [H Liansailova](#). Agriculture is the major source of economy of the people of Mizoram. Apart from agriculture the other major industries include handloom and handicrafts, agro and forest-based industries and electronics and consumer industries. Sericulture is also gaining importance among the people.



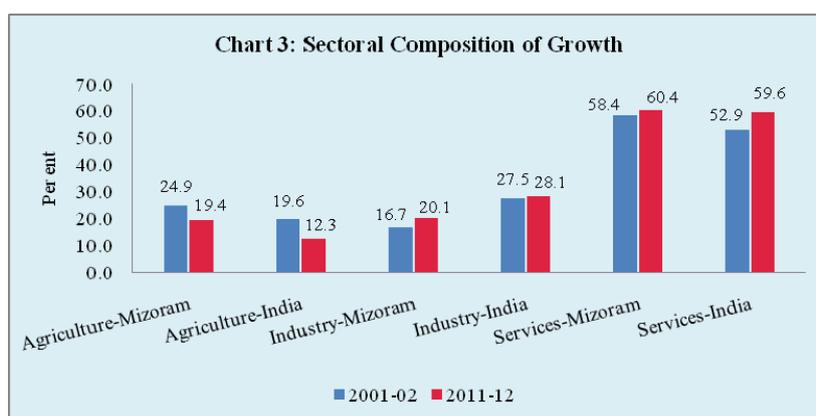
**Source:** Central Statistical Organisation, Govt. of India (2011-12)

India experienced accelerated GDP growth rate in the year 2000s. This growth experience was shared by many states. In line with the national economy, Mizoram also experienced pick up in its growth. Even as the growth momentum at the national level was dented following the onset of global financial crisis in 2007-08, the performance of Mizoram's economy was better even in the post-crisis period. Consequently, the share of Mizoram's gross state domestic product (GSDP) in the all India GDP rose from 0.08 percent in 2006-07 to 0.10 percent during 2011-12 (Chart-1).



Source: Central Statistical Organisation, Govt. of India (2011-12)

All the three major sectors of the economy– agriculture, industry and services - contributed to the improved growth performance of the state. There was, however, significant year-to-year fluctuation in sectoral growth rates. While variation in agricultural growth is understandable being weather dependent, volatility in industrial growth needs closer attention, given the low industrial base of the state (Chart 2).



Source: Central Statistical Organisation, Govt. of India (2011-12)

The sectoral composition of the Mizoram economy has broadly changed in line with the national economy with declining share of agriculture and increasing share of services. While the share of industry has picked up, it remains significantly below the national average underscoring the scope for further industrialisation (Chart 3).

The Economy of the state of Mizoram also gets its revenue from the horticulture sector. The state has around 4.40 lakh hectares of land under horticulture cultivation. The main crops grown in the horticulture sector in the state of Mizoram includes pine- apple, orange, and banana. The horticulture sector has witnessed a sharp increase in recent years and this has given a major boost to the Economy in Mizoram. Mizoram Economy gets revenue from the forest products sector as the state has a huge forest cover. The various kinds of forest products manufactured are cane works, bamboo works, and wood works. The products manufactured are sold all over the country and even exported all over the world.

The Economy in the state of Mizoram depends for its revenue on the industrial sector. But the industrial sector is not that developed due to the lack of infrastructural development and also due to the lack of raw materials. The Economy of Mizoram gets very little revenue from the mineral sector for this sector has not been fully exploited. And this has hampered the growth of Mizoram Economy. The contribution of the tourism sector to the Economy of Mizoram is also very less due to the geographical isolation of the state due to inner line permit to visit this place.

In order to boost the Economy of the state of Mizoram, the state government has to develop the infrastructure of the state by constructing new roads, bridges, and drainage system water storage such as rain water harvesting etc. The state should also take measures to improve the power supply in the state. The Mizoram government should also set up new industries so that the economy of the state is able to grow.

### **Mizoram Flora And Fauna**

Mizoram has third highest total forest cover with an area 1,594,000 hectares (3,940,000 acres), and highest percentage area (90.68%) covered by forests, comparing with other states of India (FSI, Report 2011). There are four major types of forest available in Mizoram. These are namely (1) Tropical Semi Evergreen, (2) Tropical Moist Deciduous, (3) Subtropical Broad leaved Hill and (4) Subtropical Pine Forests. Forest is predominated by variety of bamboos. The hills are boosted by some common types of bamboos which are the back bone of village economy. So, Bamboo is common in the state, typically intermixed with other forest vegetation; about 9,245 km<sup>2</sup> (44%) of state's area is bamboo bearing (Wikipedia, 2015). The state and central governments of India have cooperated to reserve the forest as well as to protect the forest (67% of the land), and additional 15% under management. Only 17% of the land is non-forested area which is used to settle the people and their different activities. These are mainly for cultivation, industry, mining, housing and other commercial human activity for present day activities. Satellite data suggests 91% of state's geographical area is covered by forests. Not only Mizoram, in North East India a traditional practice is Jhum cultivation, or slash-and-burn practice. This is a common practice which is historic tradition in Mizoram and a threat to its forest cover as well as for environment. This practice has reduced in recent decades from a government supported initiative to support horticultural crops such as pineapple and banana, beetle nut, plantations.

Mizoram is host to numerous species of birds, wildlife and flora. About 640 species of birds have been identified in the state, many of which are endemic to Himalayan foothills and southeast Asia. Of the birds found in Mizoram forests, 27 are on worldwide threatened species list and 8 are on critically endangered list. Prominent birds spotted in Mizoram include those from the families of Phasianidae, Anatidae, Ciconiidae, Threskiornithidae, Ardeidae, Pelecanidae, Phalacrocoracidae, Falconidae, Accipitridae, Otidae, Rallidae, Helionithidae, Turnicidae, Burhinidae, Charadriidae, Scolopacidae, Jacanidae, Laridae, Columbidae, Psittacidae, Cuculidae, Strigidae, Caprimulgidae, Apodidae, Alcedinidae, Meropidae, Bucerotidae, Ramphastidae, Picidae, Pittidae, Laniidae, Campephagidae, Dicruridae, Corvidae, Paridae, Hirundinidae, Cisticolidae, Pycnonotidae, Sylviidae, Timaliidae, Sittidae, Sturnidae, Turdidae, Dicaeidae, Chloropseidae, Ploceidae, Motacillidae, Fringillidae, Nectariniidae and Muscicapidae. Each of these families have many species in the natural habitats. But the threat is jhum practice during Chapchar Kut a festival of agriculture or nearly a festival of spring.

The state is also host to a variety of fauna, just like its sister northeastern Indian states. Mammal species observed in the Mizoram forests include Slow Loris (*Nycticebus coucang*), Red serow: the state animal (*Capricornis rubidus*), Goral (*Nemorhaedus goral*), Tiger (*Panthera tigris*), Leopard (*Panthera pardus*), Leopard Cat (*Prionailurus bengalensis*), and Asiatic Black Bear (*Ursus thibetanus*). Primates seen include Stump-tailed Macaque (*Macaca arctoides*), Hoolock Gibbon (*Hylobates hoolock*), Phayre's Leaf Monkey (*Trachypithecus phayrei*) and Capped Langur (*Trachypithecus pileatus*). Other than mammalian wildlife, the state is home to many reptiles, amphibians, fish and invertebrates.

The state has two national parks and six wildlife sanctuaries - Blue Mountain (Phawngpui) National Park, Dampa Tiger Reserve (largest), Lengteng Wildlife Sanctuary, Murlen National Park, Ngengpui Wildlife Sanctuary, Tawi Wildlife Sanctuary, Khawnglung Wildlife Sanctuary, and Thorangtlang Wildlife Sanctuary. Murlen national Park is a park which is situated in Champhai District of Mizoram State.

The size of the park area is 200 km<sup>2</sup> (77 sq mi). The park is situated about 245 km east of Aizawl, and is close to the Chin Hills. It lies north of Lengteng Wildlife Sanctuary in the same district.<sup>[21]</sup> It covers an area of approximately 100 km<sup>2</sup>. The tropical, semi-evergreen and sub montane Forests of Murlen are home to a rich variety of flora and fauna. About 15 species of mammals, 150 species of birds, 35 species of Medicinal plants, 2 species of bamboos, and 4 species of orchids so far have been recorded in this Park. At present, 36 people are involved in conservation work of Murlen National Park. Murlen National Park is at Murlen Village, which is the Village of Saithuama Sailo, Chief of Hnahlan. It is a part of Hnahlan Village. Murlen National Park was declared in 1991.

About 1% of sunlight can penetrate the forest on a sunny day. So the thickness of the forest is compared to the forest found in the Amazon region in South America where the geographical amplitude is more or less the same. Some of the trees found in the park are as old as 350 years. There is an area in the park where not even negligible amount sunlight can penetrate. For this reason the area has been known as 'losing area of seven fellow-men' or land of no return. The vegetation is admixture type with abundant composition of species like *Quercus* spp., *Schima wallichii*, *Betula* spp., *Michelia champaca*, *Pinus khasia*, *Prunus myrica*, *Rhododendron* spp., *Arundinaria callosa*, various Canes and few tribes of orchids. Available fauna found in this area are species like leopard, tiger, sambar, barking deer, jungle cat, squirrel, Malayan giant squirrel, Himalayan Black Bear, Serow, Hoolock gibbon, Rhesus macaque, Malayan giant, squirrel, Hume's Pheasant, Kallej Pheasant, Common partridges, Hill mynah, and dark ramped swift. Though it is protected but hunting and poaching have been reported in Murlen National Park time to time.

## **Environment and Tourism at Mizoram in India**

Ecosystems always run with the smooth functioning of the environment. Sound environment attracts visitors from different parts of the globe which ultimately leads to sound tourism. The tourism industry is one of the large sources of income and employment generation for a country. Mizoram is situated in North East India which is popularly known as one of the 'hotspots' of the world. So ecologically and economically the site is significant for development of tourism industry. But this industry is not yet been developed due to a specific reason that inner line permit which obstruct the tourist from other parts of India and also for outsiders over the globe.

### **Some tourist spots of national and international importance:**

#### **1. Ngeingpui Wild Life Sanctuary:**

It is situated in south western part of Mizoram State. It is closely related to Indo-Myanmar and Indo-Bangladesh border. It is situated in Lawngtlai District. The forest is semi-evergreen type.

#### **2. Pualreng Wildlife Sanctuary:**

Pualreng Wildlife Sanctuary is located between Tuirial River in the North and East and N. Hlimen and Thingthelh villages in the West and Bukpui village in the South, Kolasib District, area is 50 sq.km. The Sanctuary is pre-notified as proposed sanctuary and quite new. The forest is rich, in flora and fauna in its pristine condition. The forest belongs to the Tropical semi-evergreen forests and the flora and fauna has not been surveyed nor documented. The available information on the sanctuary is scanty and, therefore, need exploration.

#### **3. Dampa Tiger Project**

It is situated in Mamit District. Total area is 500 sq km., largest protected area in Mizoram. Plant species available here are *Michelia champaca*, *Terminalia myriocarpa*, *Terminalia chebula*, *Dipterocarpus* sp., *Schima wallichii*, *Mesua ferrea*, *Dillenia indica*, *D. pentaphylla*, *Duabanga* spp., and *Macaranga* spp. etc. Animal species found here are Tiger, Leopard, Elephant, Gaur, Sambar, Common langur, Barking deer, Hoolock gibbon etc. and among the avifauna, Garrulax, Woodpecker, Bulbuls, Yuhinas etc. are common. Great hornbills are also found to be present.

#### **4. Coffee Forest**

In some hill areas, coffee is planted with the effort of people with the help of forest department for generation of income and employment. In Mizoram, Coffee is cultivated without any care and maintenance, with practically no technical inputs being applied (Singh, 2010).

#### **5. Lushai Hill:**

The Lushai Hills are a part of the Patkai Range in Mizoram and partly in Tripura state. The Lushais were the last tribes of the Mizo tribes migrate to the Lushai Hills.

#### **6. Phawngpui National Park:**

Location of the park is 22°39'N and 93°02'E. South eastern Mizoram adjacent to Myanmar border, Lawngtlai District, total area of the park is 50 sq km. The forest is characterized by the presence of *Rhododendron arborea*, *Engelhardtia spicata*, *Castanopsis* spp., *Camellia kissi*, *Ulmus* spp; *Pinus keisya*, *Chinomobambusa*. Faunal species are Sambar, Leopard, Barking deer, Hoolock gibbon, Common Laguar, Blyth's tragopan, Kaley Pheasant etc. A variety number of birds and orchids, endowed with NTFP species, e.g. *Bergenia ciliata*, *Swertia* spp., etc.

#### **7. Chhintuipui River:**

Longest river of Mizoram is called "Chintuipui" or Chhintuipui". It is also called Kaladan or Kolodyne. The river originates from Chin state in Myanmar (Burma) and flows through Saiha and Longtlai District in the southernmost part of the District in Mizoram.

#### **8. Palak Lake:**

Location: between Phura and Tongkolong village, Saiha District Palak Lake which is about 1 sq.km falls under the Palak Wildlife Sanctuary It is a natural lake, oval shaped and one of the biggest in Mizoram the proximity of jhum areas due to bio-interferences and the water volume for irrigation purposes may cause unseen ecological problems in the near future.

### **9. Tramdil Lake:**

It is situated in Saitual sub-town, Aizawl District of Mizoram. Once, a big mustard plant grew in the place where the lake is now situated. When the mustard plant was pulled out, water gushed out of it incessantly. After several days the water coming out of the plate flooded forming a lake and that is why it is called 'Tamdil'. Owing to abundance of prawn in this lake it is also known as the 'City of Prawns'. The Govt., of Mizoram has constructed a link road to this lake and the Fisheries Department has developed into a beautiful fish pond.

### **10. Rhi Dil Lake:**

It is a lake which is situated in north-western Chin state of Myanmar (Burma). It is a natural lake. It lies at about 3km from Zokhawthar village at an Indo-Burma border.

### **11. Thorang Wildlife Sanctuary:**

It is situated in Lunglei District of Mizoram. Total area is 50 sq. Km., The located is between Kawnpui West and Thenhlum village, Lunglei District, Mizoram, an area of 50 sq.km. Floral species include *Michelia champaca*, *Terminalia myriocarpa*, *Gmelina arborea*, *Schima wallichii*, *Ficus semicordata*, *Dysoxylum allilaria*, *Acrocarpus fraxinifolius*, *Chisocheton panuiculatus*, *Cinnamomum* spp., etc. Faunal species -Barking deer, Sambar, Goral, Bear, Serow, Hoolock gibbon etc and among the birds *Lophura* spp., *Garrulax* spp., *Gallus gallus*, *Bucero bicornis* etc.

### **12. Murlen National Park:**

It is a park found in Champhai District. As per the study of Lalthanzara et al. (2010) following are the animals found in Murlen National Park. Serially the organisms are placed and then Mizo names and then English name in parenthesis followed by scientific name presented here.

**A. Insects and Crabs:** 1. Khau (Grasshoppers), 2. Armawnghawlh (Stick Insect), 3. Phengphehlepl (Butterfly), 4. Daidep sen (Red Dragon fly), 5. Fanghmir (Ants), 6. Khawichhur (wasps), 7. Khuai (Scoliid wasps), 8. Khuangbai (Field Crickets), 9. Thereng (Cicada), 10. Beetle Tiger (Beetle), 11. Thlangdar sen (Two spotted Stink bugs), 12. Tuitifimi nu (Water striders), 13. Tit (Centipede), 14. Maimawm (Spider). 15. Chakai (Land Crab).

**B. Arthropods:** 1. Changpat/pangchat [Earthworm (Indian blue)], 2. Changpat var te (Earthworm Drawida sp.). 3. Vangvat sei'ial (Leech).

**C. Amphibian and Reptilians:** 1. Uchang (Toad), 2. Rul tuha (Spot-tailed Pit Viper), 3. Laiking te (Small lizard), 4. Laiking hnung tial (White striped Lizard).

**D. Birds/Avis:** 1. Chedede (Blacknecked Tailor Bird- *Orthotomus atrogularis*), 2. Tektek/Tiktik (Plain coloured Flowerpecker-*Dicaeum concolor*), 3. Lailen White Wagtail-*Motacilla alba*), 4. Lailen/awr dum (White Wagtail-*Motacilla alba*), 5. Chipte (Pipit-Anthus sp.) 6. Ramchippui (Richards Pipit- Anthus sp.), 7. Vamur/Penglung (Asian Palm swift -*Cypsiurus balasinensis*), Bawng (Small Minivet- *Pericrocotus cinnamomeus*), 9. Phawngphawdawtda wt (Collared Pigmy Owlet -*Glaucidium brodiei*), 10. Mu Hawk (Eagle- *Spizaetus cirrhatu limnaeetus*). 11. Mute Car (Nicobar-Shikra *Accipiter badius butleri*), 12. Tawllawt (Great Hill Barbet-*Megalaima virens*), 13. Ramparva (Emerald Dove-*Chalcophaps indica*), 14. Thumi (Bartailed Cockoo Dove-*Macropygia unchall*), 15. Chhawlhiring (Golden fronted Chloropsis or Leaf Birds-*Chloropsis aurifrons*), 16. Chhawlhiring awmeng (Orange bellied- Chloropsis or Leaf Bird *Chloropsis hardwickii*), 17. Tlaiberh (Red vented Bulbul-*Pycnonotus cafer*), 18. Phai Tlaiberh (Bulbul-*Pycnonotus* sp.), 19. Vangek (Black Bulbul-*Hypsipetes madagascariensis*), 20. Chhemhur/Awmvar (Black headed shrike-*Lanius schach tricolor*), 21. Chhemhur/hnung paw (Grey-backed shrike-*Lanius tephronotus*), 22. Chhemhur/ludum (Black headed Shrike/Longtailed Shrike-*Lanius schach tricolor*), 23. Changarh (White spotted Fantail Flycatcher-*Rhipidura albicollis albogularis*), 24. Koro lupar (White Crested Laughing Thrush-*Carrulax leucolophus*), 25. Chinrangte (Little Forktail-*Enicurus scouleri*), 26. Vahlah (Mountain Bamboo Partridge-*Bambusicola fytchii*).

**E. Mammals (Vertebrates):** 1. Thehleikapsen (Red-bellied Palla's Squirrel-*Callosciurus erythraeus*), 2. Thehleimualrang (Himalayan striped Squirrel-*Callosciurus macclellandi*) 3. Saza Serow (*Naemorhedus (=Capricornis) sumatraensis*), 4. Ramsial/Sele (Indian Bison-*Bos gaurus*), 5. Sanghal (Wild Boar/Indian Boar-*Sus scrofa cristatus*), 6. Plumtherh (Lesser Indian Civet-*Viverricula indica*)

Photo Plate



**Jhum plant**



**Curculigo sp.**



**Castanopsis sp.**



**Smilax sp.**



**Lanea coromandelina**



**Butterfly**



**Lygodium fluxiosum (Fern)**



**Schima walichii**



**Morinda citrifolia-Medicinal Plant,**



**Callicarpa arborea in forest of Aizawl**



**Lepidagathis hayalina**



**Combretum sp.**



**Osbeckia chinensis,**



**Plant showing Emblica officinalis (Amla fruit)**



**Iris sp.**



**Cyperus sp.**



**Clerodendrum coleobrookianum-An important medicinal Plant, Alpinia sp.**



**Eupatorium odoratum (Exotic species),**



**Illicit felling of trees in a forest at Tanhril, Aizawl, India**



**Forest fungus**



**Macaranga sp. (Middle)**



**Vegetation of Aizawl, Mizoram, India; Sterculia colorata Roxb. (=Firmiana colorata Roxb) R. Br., Mizo name Khaukhim**



**Settlement of people in hill**



**Church a sacred place for Christians**



**Moth in Aizawl, Mizoram;**



**Butterfly in Aizawl, Mizoram**



**Enteda rhedii-large climber**



**Thysanolaena sp. (Broom )**



**Calotes sp. (Changeable lizard),**



**Bulbul-Pycnontus sp. (Mizo name Phai Tlaiberh)**



**Syzygium fruticosum**



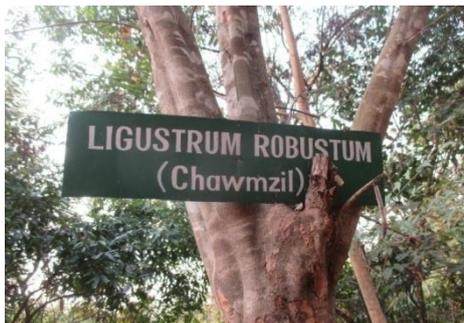
**Litsea cubaca**



**Vang: Albizia chinensis**



**same magnified**



**Ligustrum robustum**



**Buddelja spicata**



**Bougainvillia spectabilis**



**Poinsettia pulcherrima / Euphorbia pulcherrima**



**State tree Nag Kesar (*Mesua ferrea*), State bird Vavu (Bar-tailed Pheasant/Mrs.Hume's Pheasant; *Syrnaticus huniae*)**



**State Flower "Senhri"-*Renanthera imscootiana* state flower (Orchid), State animal "Red-Serow"-*Capricornis rubidus*-an wild endangered animal, IUCN category (Source: www. Internet).**

### **III. Conclusion**

Mizoram is a state of special status. It is internationally important because its own ethnicity owing to borrowing knowledge and belief including attitude by borne in/and Myanmar (Burma) and modified by Christianity after colonial development. They follow some attitudes of Christian Missionary but they use the traditions of their own. So there is a relation of different tribes of Mizos who are inhabited in Mizoram or outside the Mizoram i.e. either in Tripura (Lushis), or in Bangladesh. The geographical location is so varied even so remote that special attention should be made for special study or research to know more about the actual rituals, believes, attitudes, culture and temperament of the tribal community in distal part of Mizoram.

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