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RESEARCH ARTICLE

MIZORAM FOREST AFTER INDIA'S INDEPENDENCE: TYPES AND RESOURCES

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Abstract

After India's independence, forest in Lushai Hills district falls under the shared supervision of Cachar forest division and the Mizo District Council. A fairly large area was reserved, but extraction was confined to river banks. The poorly staffed district administration made little contribution in organising trade in forest produce. There was no proper management of Forests during the initial stage except the enactment of Acts and Regulation that prescribed royalty rates to be levied for various forest produces and also classified forests in various categories and non-reserved forest; and regulation of the practice of Jhum. The Inner Line regulation prohibiting entry of outsiders into Lushai Hills without obtaining prior permission from the Deputy Commissioner certainly helped in the prevention of the hill tribes and from exploitation of forests by outsiders. The main factors leading to deforestation are political upheaval during 1966 and continued practice of shifting cultivation. While Major Forest Produce mainly comprises of Sawn Timber, Firewood and Poles; Minor Forest Produce (MFP) has a great potential in the state of Mizoram. The hilly topography with high rainfall and humidity favours the luxuriant growth of such MFP species including valuable medicinal plants, flowing Orchids, etc. The state's rich forest resources remain vital for its ecological balance and the livelihoods of the people.

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Introduction:-

At the time when India's Independence was drawing near, there were sharp differences of opinion regarding the future of Lushai Hills among the people. On 14th August 1947 there was a meeting of Mizo leaders at Aijal (now Aizawl) with Superintendent L.L. Peters as the chairman. The meeting wanted the British Government to spell out whether the Lushais would be free to join other Dominion, i.e., Pakistan or Burma. If the Lushais were to enter the Indian Union, their main demands were: the existing safeguards of their customary laws and land tenure, etc., should be maintained; and the Regulations existing in the Lushai Hills should continue; and they should be allowed to opt out of the Indian Union after ten years, if they intended to do so (Ray, 1982).

As such, after the Indian independence in 1947 the Lushai Hills became one of the districts in Assam. The election to the District Council was held on 4th April 1952 with a total strength of 24, of which 18 were to be elected and 6

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nominated (Ray, 1993). On 25th April, 1952 under the Sixth Schedule to the Constitution of India, the “Autonomous Mizo District Council” was inaugurated. The Chieftainship was also abolished subsequently on 29th April, 1954.

The Cachar forest division continued supervising operation in the forests on the shared border, while the District Council managed other forests. A fairly large area was reserved, but extraction was confined to river banks. Organizing trade in forest produce was almost the sole activity, in which the poorly staffed district administration made little contribution. The only constituted reserve was the Inner Line Reserved Forests, and it remained to be managed by the Cachar forest division. Out of the total area of 509 Sq. miles or 1318.31 Sq. Km, only 570.00 Sq. Km was administered by the Lushai Hills or the Mizo District administration. It may further be noted that the area of 570 Sq. km being treated as the Inner Line Reserved Forests has never been effectively protected (Report of the Expert Committee on Identification of Forest areas: Vide No. C.18014/21/96-FST dated. 21.1.1997).

Progress of Mizoram Forest Organization

During the British period, the government although it was in command of resources, tended to refrain from using its power in the interests of maintaining public order and minimizing spending in the Lushai District. There was no planned management of forests except the declaration of the then Lushai Hills as “Excluded Area” and the constitution of “Inner Line Reserved Forest (Assam Gazette dated 17.3.1877). A notification was issued in 1933 on the inner line of the Lushai Hills district. Beyond this line, there was no interference on the control of inhabitants except political influence (Chakraborty, 1990). With enforcement of “Inner Line” regulation entry of outsiders into Lushai Hills without obtaining prior permission from the Deputy Commissioner was prohibited (Chakraborty, 1990). This regulation certainly helped in the prevention of the hill tribes and from exploitation of forests, by outsiders. The Forests and other natural resources were also saved from exploitation and thus regarded as a remarkable landmark contribution by the British towards the protection and conservation of forests.

As Mizoram became one of the six Autonomous District Councils of Assam in 1952, management of all the un-classed forests, other than the Inner Line Reserved Forests were handed over to the newly established Mizo District Council, where Forest Department was also created. Under the Constitution the District Council has law making powers, forest resources and the department was not given priority and remains neglected. There was no proper management of Forests during the initial stage except the enactment of the following Acts and Regulation, under the Sixth schedule of the Constitution of India with regards to the conservation and regulation of the Forests and its produces, etc. in addition to the Assam Forests Regulation 1891, applicable in the Inner Line Reserved Forests.

- 1) The Pawi-Lakher Autonomous Region (Forest) Act, 1954.
- 2) The Mizo District (Forest) Act, 1955.
- 3) The Lushai Hills District (Jhumming) Regulation, 1954

The above Acts and Regulation made prescription on royalty rates to be levied for various forest produces and also classified forests in various categories and non-reserved forest; and regulation of the practice of Jhum.

When the Union Territory of Mizoram was inaugurated on the 21st January, 1972 the region was divided into three Districts viz- Aizawl, Lunglei and Chhimituipui. The Chhimituipui District consists of three Autonomous Councils namely- Pawi, Lakher and Chakma, now named as Lai, Mara and Chakma District Councils. The Forest Department was also established in the same year and became full-fledged department headed by Director of the rank of Conservator of Forests. The first Director was appointed on 17.7.1972. This post was upgraded to the rank of Chief Conservator of Forests on 29.12.1983. The Forest Department was renamed as Environment & Forest Department with the creation of the post of Principal Chief Conservator of Forests on 10.12.1987 with opening of 3 (three) Forest Circles, 10 (ten) Territorial Divisions and 6 (six) Functional Divisions (Mizoram Forest 2006, Dept. of Environment & Forest, Govt. of Mizoram, 2008).

The organizational set up of the Department has been further expanded. By the year 2008, there are 5 Forest Circles, 20 Territorial Divisions, 20 Divisions, along with one Tiger Reserve and 71 Ranges (Statistical Handbook Mizoram, 2008).

The State Forest Department is responsible for management and administration of the state forests and, also enforcement of National Forest policy and central and state legislations pertaining to conservation and protection of forests resources, wildlife and environmental issues. It is worth mentioning here that only 5,376.54 Sq. km which is 26 per cent of the total geographical area of the notified forests, is directly under the State Forest Department control

for management. Substantial forest areas remain outside the purview of the Department leaving under the administrative control of Revenue Department. However, felling of trees within these areas is regulated by the State Forest Department (Mizoram Forest 2006, Dept. of Environment & Forest, Govt. of Mizoram, 2008).

Status of Forest Cover

Comparison of forest area for the year 1982 and 1987 reveals that there is decrease of forest cover by 914 sq. km (4.78 percentage change). The State Forest Report, Govt. of India 1989, indicates that Mizoram State possesses 86.2 per cent forest cover. Progress Report of Forestry in Mizoram (1990), published by the Department of Environment & Forest, Govt. of Mizoram indicates that forest area in Mizoram is approximately 40.33 per cent and the actual area on the ground is very much less than that (Jha, 1992). The report further stated that the main factors leading to deforestation are political upheaval during 1966 and continued practice of shifting cultivation.

The forest density class wise in Mizoram state shows that dense forest area has increased (945 sq. km) and there is decrease in area affected by shifting cultivation. In 1975 area under shifting cultivation was 16,110 sq. km. It decreased to 12, 442 sq. km; that is about 22.8 per cent in 1984 (Jha, 1992).

However, as per the estimation of Forest Survey of India, State of Forest Report (SFR) 2003, the State of Mizoram (87.42%) rank first, followed by Andaman & Nicobar Islands (84.42 %) and Nagaland (82.07) among all the States and Union territories of India in terms of forest cover as percentage of state's geographical area (Mizoram Forest 2006, Dept. of Environment & Forest, Govt. of Mizoram, 2008). It indicated that forests and forestry constitute dominant feature of the State's landscape, economy and environment.

According to the Forest Survey of India, State of Forest Report 2003, and 2005 out of 21,081 Sq. Km of the total geographical area of the state, area covered by forests has increased from 87.42 per cent (Economic Survey Mizoram, 2008-2009) to 88.63 per cent (Statistical Handbook Mizoram, 2008). From the available State of Forest Reports for the year 1999, 2003 and 2005 the area covered by forests have been increasing year by year (Table 4.1), though tree cover alone has been gradually decreasing.

Table 1:- State Forest & Tree Cover (SFR 1999, 2003, 2005).

Area in Sq. km

Year	Forest cover	Percentage of G.A.	Tree cover	Forest & Tree cover	Percentage of G.A.
1999	18,338	86.99	-	-	-
2003	18,430	87.42	130	18,560	88.04
2005	18,684	88.63	122	18,806	89.21

Source: Forest Survey of India, State of Forest Report 1999, 2003 & 2005

However, due to age-old traditional practice of shifting cultivation, uncontrolled fire, unregulated felling and land allotment to individuals by the state Revenue Department, two-third of the area has already been degraded. Such depleted and partly degraded forest could not meet the growing demands of timber and other forest produce in the state. It fails to provide safeguard to the ecological functions like protection of soil and land, maintenance of agricultural productivity and protection of catchments. Nevertheless, contribution of forestry sector to the state's economy and well-being of the people is high and significant. In terms of economic value of goods (i.e. timber, fuel-wood, etc.) and service (income and employment) contribution of forestry sector is estimated at Rs. 100 crore per year (Mizoram Forest 2006, Dept. of Environment & Forest, Govt. of Mizoram, 2008).

Notified Forest and Reserved Forest

According to State Forest Report - 2003 published by Forest Survey of India, Ministry of Environment & Forests, the State of Mizoram has 16,717 Sq. km of Recorded Forest Area. Out of which Reserved Forest covers 7,909 Sq. km, Protected Forest covers 3, 568 Sq. km and Un-classed Forests covers 5,240 Sq. km (Economic Survey Mizoram, 2007-2008). Jhuming is still widely practiced in the State, which is the major cause for deforestation and degradation of forest area. Hence, these forests are subjected to pressure of this prevailing system of cultivation in combination with forest fire and related problems. Though the State Forest Report-2003 published by Forest Survey

of India, Ministry of Environment & Forests depicted areas under Reserved Forests as 7,909 Sq. km, it was found out on close observation of Statistical Handbook 2008, and Mizoram Forest 2006, published by Environment & Forests Department, that they depict different information as shown below.

Notified Forest or Reserved Forests in Mizoram cover an area of 7,938.00 Sq. km (37.7 % of Geographical Areas), that can be broadly classified into areas under State Owned and District Council Forests. The State Owned Reserves covering a total area of 5,376.54 Sq. km (i.e 26 % of Geographical Areas) are again classified into Riverine Reserved Forests (1832.50 Sq. km), Innerline Reserved Forests (570.00 Sq. km), Roadside Reserved Forests (97.00 Sq. km), Other Reserved Forests including Compensatory afforestation areas (1886.09 Sq. km), and Wildlife Protected Areas (990.75 Sq. km) (Mizoram Forest, 2006). The Reserved Forests under District Council covering total areas 2,462 Sq. km are divided into Lai Autonomous District Council (976.00 Sq. km) (Statistical Handbook Mizoram, 2008), Mara Autonomous District Council (217.00 Sq. km) and Chakma Autonomous District Council (1,369.00 Sq. km) respectively (Mizoram Forest, 2006).

Protected Areas in Mizoram context, means Wildlife Protected Areas [Lalnunsanga K., DCF (ARCBR)]. The state is rich in wild flora and fauna, both in variety and abundance and need to be confined in these areas. The Protected Areas cover about 990.75 Sq. km, consisting of 1 Tiger Reserve, 2 National Parks, and 6 Wildlife Sanctuaries.

Forest Types in Mizoram

The forests support variety of flora and fauna with rich gene pool, few species of which are endemic in origin (Economic Survey Mizoram, 2008). The distribution of these forests is a clear reflection of the topographical and climatic characteristics prevailing in the state. Whereas according to State Forest Report 1999, published by Forest Survey of India, Ministry of Environment & Forests, the three forest types occurring in the state as Tropical Wet Evergreen Forests, Tropical Moist Deciduous Forests and Sub-Tropical Pine forests (Mizoram Forest, 2006). Types of forest found in Mizoram are conveniently classified as follows:-

Tropical Wet Evergreen Forests:

These types of forests are generally dense forest found on high hills having heavy rainfall and are the most important forest type in the state. The broad locations of these forests are the high hill mountains like Phawngpui (Blue Mountain), Chalfilh, Tawi, Murlen etc (Jha, 1997).

These forests abound in valuable evergreen timber species. The common tree species found in these areas are Artocarpus, chaplasha, Syzigium cumini, Michelia champaca, Dipterocarpus turbinatus, Terminalia myriocarpa etc. in the top canopy, Dendrocalamus strictus, D. hamiltoni, Melocanna baccifera, Bambusa tulda, B. pallids in the middle storey and Cane, Laportea etc., in the undergrowth (Mizoram Forest, 2006).

Tropical Semi-Evergreen Forests:

These forests are generally limited to the north, north western and central part of the state and cover larger area than any other types (Jha, 1997). It covers the central biographic zone and the coverage is approximately 50 per cent of the total geographical area.

The common important tree species are – Gmelia arborea, Phoebe attenuate, Persia petiolaris, Syzigium cumini, Albizzia chinensis, A. odoratissima, A. procera, Sapium baccatum, Schima wallichii, Castanopsis tribuloides, Styrax polyspermum etc. Bamboo and cane though occur in abundance are generally found in the shady low lying areas. Major bamboo species found are Melocanna baccifera, Dendrocalamus spp. Etc (Mizoram Forest, 2006).

Sub- Tropical Hill Forests:

This type of forest is a mixture of purely deciduous and evergreen trees consisting of a mixture of several species (Jha, 1997). They are generally found at higher altitude along the eastern fringes bordering Myanmar and approximately extending from 1500-2157 meters above mean sea level. The area constitutes about 24 per cent of the total geographical area (Mizoram Forest, 2006).

Common flora species in these forests are Rhododendron arboretum, Myrica esculenta, Engelhardtia, Pinus kesiya, Lithocarpus dealbata, Quercus griffithii, Quercus serrata, Arundinaria callos, Chimonobambusa khasiana, Dendrocalamus sikkimensis, D. giganteus; Melocanna compactiflorus, Melocanna baccifera etc. This forest type is the natural abode of epiphytic orchids like Renanthera imshootiana, Vanda coerulae, Mantisia saltoria etc.

Forest Produce in the State

The forest produce can be divided into two categories such as Major Forest Produce and Minor Forest Produce (MFP), otherwise known as Non-Wood Forest Produce (NWFP). While major forest produce mainly comprise of Sawn Timber, Firewood and Poles; Non-Timber Forest Produce consists Bamboo, Broomstick, charcoal, stone, sand etc., Also - canes, orchids and medicinal plants are generally included under minor forest produce.

Timber Resources and Forest Utilization Policy

Mizoram is the home of great variety of evergreen as well as deciduous timber species. The common indigenous timber yielding species are: *Michelia champaca* (Ngiau), *Terminalia myriocarp*, *Artocarpus chaplash*, *Gmelia* (*Thlanvawng*), *Tectona grandis* (Teak) (Mizoram Forest, 2006).

Most of the timber demands in the state are being met from the natural forests and only a small fraction of the demands are met from plantations. Timbers are utilized mainly for house construction and furniture. No wood based industry has been established so far in the state except some petty saw mills in which only sawn timbers are being fed. Small timbers are consumed in a large scale for fire-wood in most of the rural areas.

Timber extraction was done through permit system since inception of Environment & Forests Department till 1996. There is very little scope for commercial felling of trees in Mizoram because of poor stock in its forest in comparison to bamboo resources (Economic Survey Mizoram, 2008-2009). Most of the timbers are extracted from the natural forest under the supervision of the department by levying prescribed royalty. The revenue earned from the timber formed a major portion of the revenue collected by the department. Wood produce of the state natural forests includes timber, firewood and poles. The total revenue returns from wood produces for the year 2006-07 and 2007-08 are Rupees 661,189 and Rupees 26,75,274/- respectively (Statistical Handbook Mizoram, 2008).

However, in line with the direction of the Supreme Court of India's order, permit system has been done away with since 1998. National Forest policy 1998 also states that forest should not be looked upon as source of revenue (Economic Survey Mizoram, 2008-2009). They are the assets to be protected and enhanced for the well being of the people and the nation, considering their contribution in maintaining essential ecological processes and life support system. Apparently in view of the National Forest Policy, the Supreme Court by its order dated 15.1.1998 directed that there shall be no fresh felling in the forest except in accordance with the Working Plan of the state government. The timbers collected are sold to meet the local demands to the public with no loss no gain basis (Mizoram Forest, 2006).

Minor Forest Produce

Minor Forest Produce (MFP), otherwise known as Non-Wood Forest Produce (NWFP) has a great potential in the state of Mizoram. The hilly topographic nature of the state together with high rainfall and humidity favour the luxuriant growth of such species. The term MFP and NWFP are used alternately having the same meaning for the department as well as for the researchers (Statistical Handbook Mizoram, 2008).

Anchiri (*Homanlomena aromatica*) an endangered tuber species used for making perfume, medicine etc., is a prohibited species. The Mahal System is the main system of selling Anchiri, some has been illegally extracted from the forest (Lalnunsanga, K., DCF). The department received a sum of Rupees 5, 91,250/- from selling 950 quintals of Anchiri for the years 2007-08 (Statistical handbook Mizoram, 2008).

Bamboos are predominant and orchids represent the largest flowering plants in the state. Whereas a good number of medicinal plants grow in the forests and a considerable varieties of canes have their natural abode in this natural forest areas of evergreen and mixed deciduous forests (Jha, 1997). The age-old practice of shifting cultivation or 'Jhumming' is the single major factor for large scale depletion of natural forest cover in Mizoram thereby affecting many species of orchids, medicinal plants, bamboos and canes. Bamboos are however, the least affected as culms/sprouts are coming out annually from the rhizome remaining underground and somehow restored the same status as before in areas where they are undisturbed. Other species are badly affected to the extent of extinction (Jha, 1997). Through proper management, this will not only enhance the state's exchequer but can easily be a source of livelihood for many rural families.

Bamboos occupy an important place among the forest resources of Mizoram. It serves as a poor man's timber besides fulfilling other countless needs for small scale and cottage industries. Bamboo stock is sufficient and

contributes revenue to the state exchequer. While major forest produce in altogether fetch Rs. 6,61,160/-, bamboo alone earns Rs. 177,00,000/- during the year 2006-07 (Economic Survey Mizoram, 2007-2008). Other important minor forest produce worth mentioning are also studied as follows:

Medicinal Plants

Traditional uses of herbal medicines among the tribal people are in vogue since time immemorial. Although, Mizoram is a tribal area and rich in bio-diversity, little attention has been given towards new discoveries and scientific surveys by the state government. The whole state is fully unexplored properly (Jha, 1997). However, folklore medicines have been in use and some knowledge on medicinal plants has been passed on through generations and is still in use for curing different ailments particularly among the villagers. Health status in rural area is low, and as a result they have to highly depend on natural and herbal medicines for their primary health (Mizoram Forest, 2006).

Survey on Medicinal Plants

In Mizoram, medicinal plants are found mostly in evergreen and semi evergreen forests but the abundance or distribution is quite varied. The first botanical tour was conducted by Gage (1889) and plants collections were held by Parry (1924-28), Wenger (1926-32), Kanjilal (1934), Fischer (1938) and a team of scientists from Botanical Survey of India, Shillong. Forest Survey of India, Calcutta also conducted survey of forest resources in 1988-89. Prof. H. Lalramnghinglova, the first local ethno-botanist started to work on botanical collection and ethno-botanical research since 1990 (Mizoram Forest, 2006).

Important Medicinal Plants

About 437 medicinal plants have been reported from Mizoram in which 62 were recorded as new medicinal plants and 64 were categorized as threatened species (Jha, 1997). The natural forests and protected areas are the best custodians of medicinal plants. Some of the most important medicinal plants in use in the state are:-

Sl.No	Botanical Name	Mizo Name
1.	Achyranthes aspera	(Buchhawl)
2.	Actephila exelsa	(Maiteleng)
3.	Alstonia scholaris	(Thuamriat)
4.	Aporosa octandra	(Chhawntual)
5.	Berginia ciliata	(Khamdamdawi)
6.	Blumea lanceolaris	(Buarze)
7.	Catharanthus roseus	(Kumtluang)
8.	Curcuma zedaoria	(Ai dizung)
9.	Gynocardia odorata	(Sai thei)
10.	Lonicera macrantha	(Leihruisen)
11.	Martynia annua	(Vatelu)
12.	Phyllanthus fraternus	(Mitthisunhlu)
13.	Stemona tuberosa	(Kaimam)
14.	Zanonia indica	(Lalruangadawibur)
15.	Holarrhena antidysenterica	(Thlengpa)

Source: Environment & Forest Department - Statistical Handbook 2008,

Villages whose vicinity is rich in ethno-flora are encouraging to preserve in natural habitats. It is necessary that the local people feel ownership of their native resources and use their rights to protect the bio-resources from overexploitation. For instance, *Smilax glabra* (Tluangngil), *Homalomena aromatica* (Anchiri), *Cinnamomum zeylanica* (Thakthing), *Aquilaria malaccensis* (Thingrai), etc. had been collected from outside the State since 1970's. As a result *Smilax glabra* and *Aquilaria malaccensis*, etc. became critically endangered species. Conservation of medicinal plants within the protected areas is under process (Lalnunsanga, K., DCF).

Threats to Medicinal Plants

The greatest threat to forest degradation is slash-and-burn method of shifting agriculture in the state. Clearance of land for agriculture, uncontrolled fire, heavy extraction of timber and fuel wood, hunting for food and harvest of edible and medicinal plants in the forests in the past have contributed for depletion of medicinal plants.

The socio-economic life of the rural people depends on their ambient vegetation from where they derive all their material requirements - timber, food, fuel wood, medicinal plants etc. Majority of the villagers in remote areas depends on herbal medicine and raw materials are harvested from the wild plant without replenishing the stocks. The village herbal preparation includes uprooting of the plants, which is detrimental to the plant species. As a result, commonly used and effective herbal plants became rare and endangered species, and some plants are on the verge of extinction unless crash conservation measures are taken up for revival of *Berginia ciliata*, *Zanonia indica*, *Aquilaria malaccensis*, *Gynocardia odorata*, etc (Mizoram Forest, 2006).

Orchids of Mizoram

Mizoram has rich diversity in natural orchids. A.G. McCall, the last Superintendent of Lushai Hill has rightly describes on its beauty thus “Orchids of enchanting variation peep from high out of their chosen security among the shady branches of tall trees, here and there provide a tone of contrast and brightness among the expanses of green foliage” (Mc Call, 2003).

About 250 species of orchids are available in the natural forests. Earlier workers revealed the occurrence of orchids in the Mizoram – Gage (1901) recorded 49 species belonging to 19 genre; Fischer (1938) enlarged this list to 152 species distributed within 50 genre, and while the list has been added by others researchers D.K Singh et. al (1990) listed 246 species recorded under 74 genre. It is interesting to note that 3 out of 7 extant species of *Paphiopedilum*, the most sought after and commercially highly exploited genres are endemic in the state (Jha, 1997).

Important Orchid Species

Mizoram is the only natural home of *Vanda Coerules* (Blue Vanda), *Renanthera imschootiana* (Red Vanda) among the North East States. At the same time, these two species and *Paphiopedilum* (Lady's Slipper) species are prohibited species for export Vide: Schedule VI of the Wildlife (Protection) Act, 1972 (Mizoram Forest, 2006). Mizoram is also the natural home of *Paphiopedilum hirsutissimum* and *P. villosum*. Therefore, this state has four rare and depleted orchid species which is totally prohibited for export (Ray, 1993). Apart from this, there are many orchid species which are having ethno-botanical importance. Out of the 250 species of orchids available in the natural forests following are the most important species found in Mizoram (Lalnunsanga, K., DCF).

	Botanical Name	Mizo Name
1.	<i>Aerides odorata</i>	(Ngurtinchhing)
2.	<i>Arundina graminifolia</i>	(Lelen)
3.	<i>Cymbidium mastersii</i>	(Bamsiau)
4.	<i>Cymbidium irridiodes</i>	(Bansian)
5.	<i>Dendrobium chrysotoxum</i>	(Ban pareng)
6.	<i>Dendrobium formosum</i>	(Banpui parvar)
7.	<i>Dendrobium densiflorum</i>	(Banpui parbit)
8.	<i>Dendrobium nobile</i>	(Banpui)
9.	<i>Papilionanthe teres</i>	(Kela beng)
10.	<i>Paphiopedilum hirsutissimum</i>	(Tre Zawngatuikhur)
11.	<i>Paphiopedilum villosum</i>	(Zawngatuikhur)
12.	<i>Phaius tankervilleae</i>	(Sesan)
13.	<i>Renanthera imschootiana</i>	(Senhri)
14.	<i>Rhyncostylis retusa</i>	(Uaihniang)
15.	<i>Vanda coerulea</i>	(Lawhlei)

In Mizoram some of the tuber orchids such as *Eulophia*, *Habenaria* are also having medicinal value for treatment of hemiplagia, paralytic infections, chronic diarrhoea, diabetes etc. Some of the orchids like *Dendrobium nobile*,

Ephimeranthan macrei etc., also have medicinal value. Mention may be made that Mizoram is not only rich in the number of orchid species, but also most species are top in the list of ornamental and medicinal values (Mizoram Forest, 2006). Most of the species important for breeding and raising new hybrids are available locally in the state.

Problem Facing Orchid's Species

The orchid's population is becoming less and less and some species are becoming threatened as they are illegally collected and sold from the State, some species like Blue Vanda, Red Vanda, Paphiopedilum species are collected by visitors from outside the State and abroad (Mizoram Forest, 2006). The aged old practice of shifting cultivation and collection of orchids from its natural habit also had a severe detriment effect.

These natural orchids are not properly conserved and developed to a sustainable utilization level due to the lack of eco-scientific management. The present set-up is not adequate to carry out the suggested points for conservation of orchids and research works due to lack of infrastructural facilities.

Conclusion:-

After India's independence the Cachar Forest Division of Assam continued to oversee activities in the forests along the common border, while the Lushai District Council managed the other forests. But the Cachar Forest Division's ongoing oversight of the shared border forests appears to be more of an act on behalf of the Lushai Hills District administration, given that the latter, at least initially, lacked the resources in the Department of Forests, including sufficient personnel.

A large amount was set aside, but exploitation was limited to the banks of rivers. Organizing the trade in forest produce was almost the only activity moving on, and the district administration, with its understaffed workforce, contributed very little to it.

After India's Independence, the then Lushai Hills district of Assam was reduced in importance to near oblivion and left to fend itself in finding a way to utilizing its gift of partial autonomy. Twenty years of insurgency and counter insurgency disrupted the life of the people, and built up mutual misgivings between those of the people inside Mizoram and those who are living outside the state. The history of neglect by the state together with absence of a precedence of responsive and efficient administration greatly intensified the task of progressive force.

The state came a long way in the twentieth century, from collection of sovereign villages to unified state of a large union. In this process most of the people lost their exclusivity, through ethnic assimilation and adopted Christianity in place of animism. The population has increased from 82,434 in 1901 to 8, 88,573 in 2001(Statistical Handbook Mizoram, 2006), and livelihood diverged from primitive cultivator in the village to include other occupation in the town. The once self-centered and self sufficient village was drawn into economic and political relation with places outside the domain, thus widening the range of influence on the life of its people.

Presently the share of agriculture and allied sector including forestry, to Gross State Domestic Product (GSDP) has been declining over the years. This is due to the fact that the onset of bamboo flowering continues to have its adverse effect on agriculture product, especially on the production of paddy. Its contribution to GSDP for the year 2007-2008 as per advance estimates amounts to only 14.90 per cent of the total GSDP whereas service sector continues to have the highest contribution to GSDP. Its percentage share increases at the rate of 0.67 per cent over the previous year. Service sector contributes about 24.19 per cent of the total GSDP (Economic Survey Mizoram, 2008-2009).

In the middle of all this, relationships between people and resources have acquired different shades over time, stretching across the pre-colonial to the post independence. The animistic concept of nature was dislodged by Christianity. New political border determined the domain of society-community rights of cultivation and use of forest produce were protected. The traditional institution of chieftainship which controlled resources progressively eroded, replaced by elected village council.

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