

LAC West Garo 5-1-1 / Them Doe / Draft Action Plan West Garo

AC
Comments to be sent 5/1/02

Society for Environment Protection & Rural Development (SEPARD)



PEDALDOBA, WEST GARO HILLS, MEGHALAYA
Registered Under Societies Act 70 of 1990, Meghalaya, Shillong
No. SR/SFEPARD - 227/93 of 1993, dt. 18 June 1993

Biotech Consortium India Limited
28 DEC 2001
4021
Dy. No.

Shillong 20th Dec. 2001

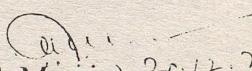
Dear Madam Dr. Vibha Ahuja, A. S. Delhi
We have completed the NE Regional NBSAP meeting at Guwahati from 18 to 20 December 2001. Due to my personal and departmental activities, I could attend only on 18th December 2001. I have presented my NBSAP Project Draft Report for Sub-State Site, West Garo Hills, Meghalaya.

Now, I am submitting herewith a Draft Report of the same for West Garo Hills Sub-State Site for necessary action. My Draft Report may not be exactly as per format supplied by you, but the suggested Pin Point Strategy Action Plan is more important to be included in the National Strategy Action Plan along with the Meghalaya State and North Eastern Region. Please accept our proposal for West Garo Hills, Meghalaya.

I may be excused for delay in submission and it may not be possible for me to redraft or re-write the same report again, due to some departmental preoccupations.

Wishing you A Merry Christmas and Happy New Year.

Yours faithfully,


(P.G. Momin) 20.12.2001
Coordinator Sub-State Site
West Garo Hills, Meghalaya

To,
✓ Dr. Vibha Ahuja
Member Secretary
NBSAP Project
Biotech Consortium India Limited
Kundan House,
4th Floor
16, Nehru Place
NEW DELHI 110 019

KALPAVRIKSH
Apartment B, 'SHREE BAITA KRUPA',
808, Dattan Gymkhana, PUNE-411 004.
India. Telefax : 91-20-5654239
Email-kvriksh@vsnl.com.

AS 2/5

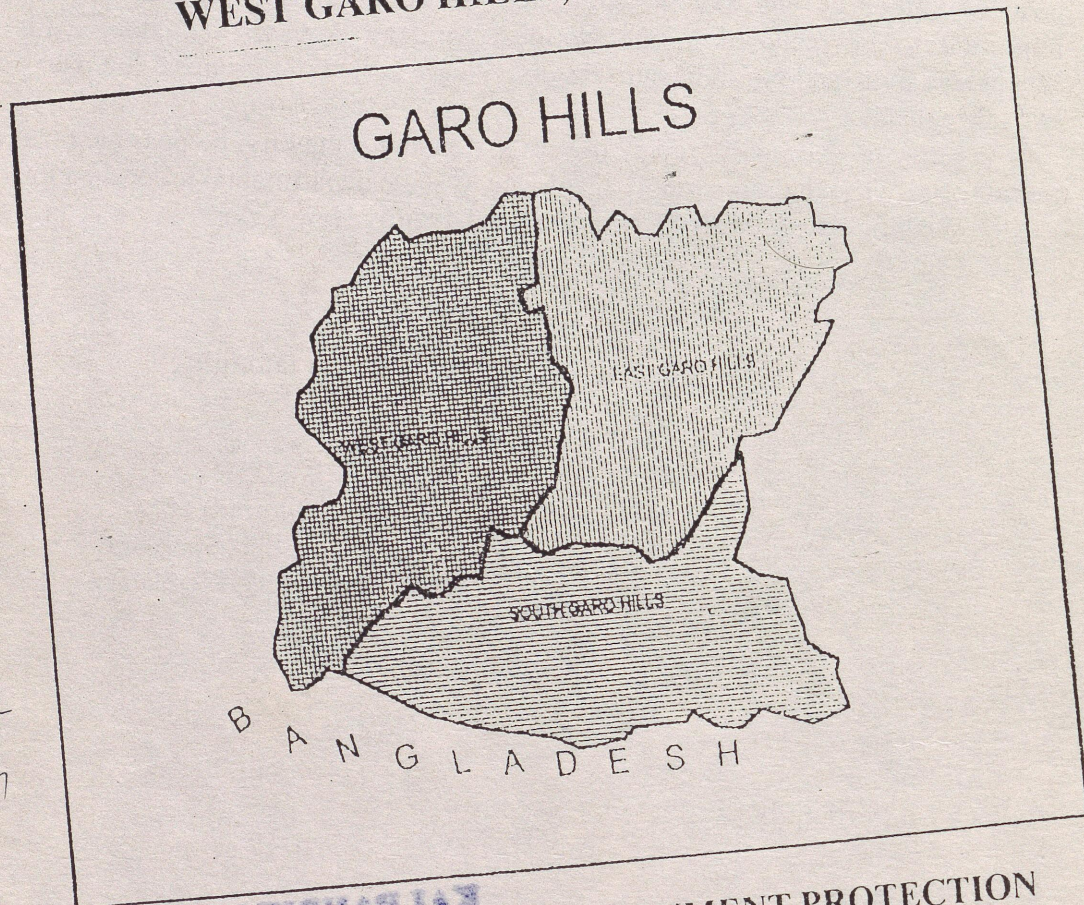
Pl. forward a copy to Ashish

|| 77!

NATIONAL BIODIVERSITY STRATEGY AND ACTION PLAN (NBSAP), INDIA

Draft Report

BIODIVERSITY STRATEGY AND ACTION PLAN SUB-STATE SITE: WEST GARO HILLS, MEGHALAYA, 2001



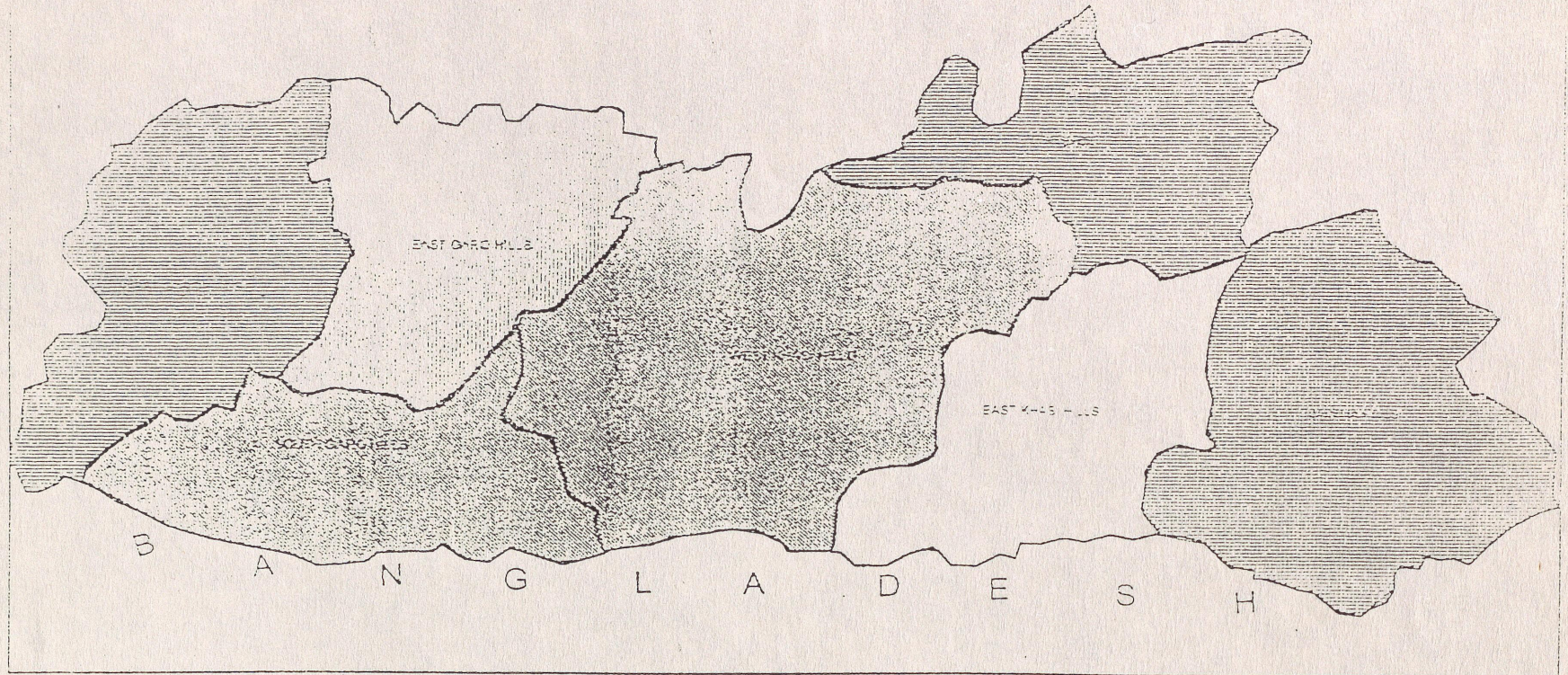
Put in relevant details incl. key places mentioned in report etc.

SOCIETY FOR ENVIRONMENT PROTECTION AND RURAL DEVELOPMENT (SEPAD), PEDALDOBA, WEST GARO HILLS, MEGHALAYA

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MEGHALAYA



CHAPTER - I

INTRODUCTION

Profile of the Area (Garo Hills)

Meghalaya, the 21st state of Indian union, was declared a full-fledged state on January 21st, 1972. Having an area of 22,429 sq. km. and population of 17,74,748 in 1991. The state has at present 7 administrative districts - West Garo Hills, East Garo Hills, South Garo Hills, West Khasi Hills, East Khasi Hills, Ri-Bhoi and Jaintia Hills.

The East Garo Hills district is one of the major districts (out of the three original districts) since inception of the state of India in 1970. Garo Hills district is situated between 25°9'20" and 26°51'18" North latitude and between 91° and 91°10' East longitude. The Garo Hills district by now, again has been divided into three districts, West, East and South Garo Hill districts in 1975 for better developmental activities and closer relationship between citizens and state government agencies. The Garo Hills district lies in the Western part of Meghalaya, bounded by Assam in North and Western part, and Mymensing district of Bangladesh in the South. The Garo Hills district is a part of Meghalaya plateau with beautiful undulating hill ranges with rich in flora and fauna such as wild animals, birds, reptiles, different medicinal plants, valuable trees, orchids, etc.

→ you have reported 2001 census results later

Topography, Geology, Climate and Soil

The Garo Hills district being a part of Meghalaya plateau, the geological history of which has to be explain in relation to the total structure of Meghalaya plateau. The Garo Hills a part of Meghalaya plateau has indeed a checkered evolutionary history and is a fragment of the super continent of Gondwana and contains within each warfare the marks of peneplanation periods. The higher parts of plateau preserved remarks of Gondwana surface, while later cycles traced below them. The various rock types found in Garo Hills is occupied by (a) Archaean, (b) lower Gondwana rocks and (c) Cretaceous tertiary sediment.

The geology of Garo Hills is characterised by the presents of a wide variety of rock types that originated in various epochs of the earth evolution, starting from the most ancient time upto the recent, the oldest known rocks comprises the "Archaean group" (about 3600 million years). This group is represented by hard massive rock like Gnessic, granulites, pegmatite, amphibioteties and the blanded ferruginous, quartzite which occupies 60 percent of the area in the northern part of the district. The Garo Hills is rich in minerals wealth, the potentiality of initiation or expansion of mineral based industries in the districts of Garo Hills mainly depend on the three principle mineral deposits, viz., limestone, coal and clay.

There were three mountain ranges - the Arabella range, the Tura range and Rangira range passes through the Garo Hills, forming the great Balpakram Valley in between Garo Hills is known for the abundant of wild life, should interest naturalist and photographer captured the facts of life of animals and the flora and fauna. The highest

peak of Garo Hills is Nokrek peak (1412 m). From the point of view of physical features the district of Garo Hills can be divided into three regions –

- (1) Northern sub-montane region,
- (2) the Central main plateau region and
- (3) Southern Hill slope region. The water divides or the drainage basin of the district can be divided distinctly into 2 zones –
 - (a) Northern river basin zone and
 - (b) Southern river basin zone.

The Garo Hills district is directly influenced by the South-West monsoon and North-East winter winds. The four seasons of the region are Spring (March-April), Summer (Monsoon – May-September), Autumn (October-November) and winter (December-February). During march and April, the atmosphere gradually warm with the advent of spring, from the middle of April, the temperature starts rising to the maximum in the month of June and then decreases gradually due to summer rain. These periods may be termed as the summer (monsoon) season. The maximum temperature recorded is 34°C at Tura of West Garo Hills District. October and November are the two months when the climate is cool and temperate. After November, the winter season sets in and continues upto the end of February. During these months the temperature comes down as low as 11°C in Tura. Rainfall starts by 3rd week of May and continues right upto the end of September and sometime well into the middle of October. The maximum rainfall occurs over the south-western slopes of Garo Hills, i.e., over Tura, Dalu, Bhagmara and Mankachar and Dhubri, the adjacent places of Assam. The maximum rainfall is receives in the month of June and July as 765 and 790 mm respectively.

The soils of Garo Hills have developed under varied conditions of geology, relief, climate and vegetation. They are of four different types –

Red Loamy Soils occupy the central part of Garo Hills, i.e., upland zones of central part of Meghalaya. They are derived from the weathering of rocks like Granites, Gneisses, diorites and others which are relatively rich in clay forming minerals and poorer in Silica. These soils are generally loamy but sometimes vary from clayey to sandy loam. The surface horizon which is about 30 cm. thick has occurs ranging from reddish-brown to dark reddish-brown. The soil are rich in organic matter and nitrogen but deficient in phosphate and potash. They are wealthy acidic in character and are suitable for the cultivation of rice, potato and fruits.

The Laterite Soils occurs in a broad belt extending from West to East in the northern part of the districts. They have been formed by the weathering of rocks like quartzites, schist, conglomerate, granites and gneisses which are rich in iron and alumina. From the agriculture point of view, the soil are not very important but can be used for the purpose by mixing heavy amount of organic matter.

The Red and Yellow Soils are found in a belt running from east to west in the foothills of the districts. They vary in colour from yellow to red, reddish yellow and yellowish brown. These soils are usually fine textured ranging from loam to silty loam and are suitable for rice and fruits.

The Alluvial Soil occurs all along the north-western and southern fringes of the districts. These soils are rich in potash but poor in phosphate. They are being used for the cultivation of rice, jute and fruits. The terrain has played an important role in determining the nature of the soil in Garo Hills. In general the soils are immature, light in colour, less clayey and less fertile on the hill-top and are thick, matured, deep in colour, more clayey and more fertile in the valleys and alluvial lawlands. The soil erosion is one of the major problem of agriculture in Garo Hills district. It is mainly caused by the practices of shifting cultivation which is characterised by rugged topography and heavy rainfall. The uncontrolled grazing which limits the growth of vegetations on the land surface and in some areas, the top-soil has been completely washed away from the hill slopes, making them useless for cultivation.

Population

The physiography, the climate and the economy of the districts do not provide a regional environment. The population is most uneven in its distribution. The growth pattern is erratic and migration is a common features. Most of each population is rural in nature. The demographic and social structure of the districts are essential and important in formulating of any plans for the economic development of a region.

The district-wise number of villages, towns, police stations, out-post, and community development of Garo Hills District is given below -

Area and Population

District	Area (Sq. Km)	Population (2001)	Sub-division	Villages (2001)	Towns (2000)	Police Stations	Police Outposts	Comm. Dev. Blocks
E Garo Hills	2603	247555	1	856	1	5	3	4
S Garo Hills	1849	99105	-	595	1	1	2	3
W Garo Hills	3715	515813	2	1481	2	7	4	7
Meghalaya	22429	2306069	8	5780	12	34	24	32

The Block-wise population of Garo Hills District is also given below -

Population and Area

According to the 2001 census, Meghalaya has a population of 2306069 of which Garo Hills accounted for 862473 population. The density of population per square kilometer is 103. The district-wise population breakup is as follows -

District-wise Area and Population

District	Headquarters	Area (Sq. Km)	Population
West Garo Hills	Tura	3714	515813
East Garo Hills	Williamnagar	2603	247555
South Garo Hills	Baghmara	1850	99105
Meghalaya	Shillong	22429	2306069

Except for column 2 (headquarters) this info is given above. so you could shift column 2 above.

Means?

Mean?

Source?

shape?

Shift next down page
(*)

There are 14 development blocks in Garo Hills, out of which West Garo Hills have 7 Development Blocks. They are

1. Dadenggiri Development Block
2. Selsela Development Block
3. Rongram Development Block
4. Betasing Development Block
5. Zikkjak Development Block
6. Dalu Development Block
7. Tikrikilla Development Block

Block-wise Area and Population

Districts and Blocks	Area (Sq. Km.)	Population (2001)	No. of Villages (2001)	Households (2001)
East Garo Hills	2603	99105	856	35537
Dambo Rongjeng Dev. Block	885	60192	277	11111
Songsak Dev. Block	703	32212	173	6507
Samanda Dev. Block	547	30094	132	5782
Resubelpara Dev. Block	468	66332	274	12137
South Garo Hills	1849	99105	852	23226
Chokpot Dev. Block	612	29464	343	5519
Baghmara Dev Block	651	33255	147	6175
Rongara Dev Block	587	14354	105	2698
West Garo Hills	3715	515813	1481	76314
Dadenggiri Dev Block	947	63170	136	12549
Selsella Dev Block	535	99752	305	17609
Rongram Dev Block	867	89546	232	16620
Betasing Dev Block	301	51531	205	10087
Zikjak Dev Block	405	53787	191	10615
Dalu Dev Block	659	45241	257	8834
Tikrikilla Dev Block	-	-	155	-
Meghalaya	22429	2306069	5780	327371

Administration

The state of Meghalaya has a unicameral legislature, the State Legislative Assembly consists of 60 members and the breakups of Electoral Legislative Assembly constituencies are as follows -

1. 29 representative from Khasi Hills
2. 7 representative from Jaintia Hills
3. 24 representative from Garo Hills

Meghalaya Legislative Assembly
Constituencies in Garo Hills, 2000

1. South Garo Hills District

2. East Garo Hills District

3. West Garo Hills District

1. Chokpot
2. Baghmara
1. Karkutta
2. Mendipathar
3. Rongrengiri
4. Resubelpara
5. Songsak
6. Rongjeng
7. Bajengdoba
1. Rangsakona
2. Dalamgiri
3. Dalu
4. Selsela
5. Dadengiri
6. Rongchugiri
7. Kherapara
8. Salmanpara
9. Tura
10. Mahendraganj
11. Rongram
12. Phulbari
13. Tikrikilla
14. Ampattgiri
15. Rajabala

After the State Legislative Assembly constituencies, there is an Autonomous District Council with 30 members. The district council is established on the basis of VI Scheduled of Indian Constitution.

Health

Like education, the foundation of health care centers was started and laid foundation stone by the Christian Missionaries as far back as the 19th century. Yet the health services coverage in the state and districts of Garo Hills is much below the National average owing to the hilly terrain with its inadequate road network. To reduce infant and maternal mortality, a number of family welfare programmes have been taken up under Central Government sponsorship. The State Government Health care centers and hospitals are as follows –

1. Government Hospitals	5
2. Community Health Centres	10
3. Primary Health Centres	77
4. Sub-Health Centres	325
5. No. of Beds in Govt. Hospitals, Community Health Centres, Primary Health Centres	2352

*Such details
are not
necessary*

*Good
health
care - 7*

The district-wise number of hospitals and dispensaries of Garo Hills district 2000 is given below

Health Services

District	Hospital	Dispensaries	PHC	CHC	Sub-Centre
South Garo Hills	-	5	3	1	21
East Garo Hills	-	3	15	2	67
West Garo Hills	3	9	17	3	87
Meghalaya	10	38	88	12	413

7

Nothing or key threats except jhum
No egg analysis

CHAPTER - II

STATUS OF BIO-DIVERSITY

The People

The Garo Hills district is predominantly inhabited by the Garos, belonging to the Bodo family of the Tibeto-Mongloid race, said to have migrated from Tibet. The Garos prefer to call themselves Achiks' and the land they inhabited as the Achik land. They are among the few communities in the world that observed the matrilineal line of descent in the family, in which lineage and ancestral property pass down from mother to daughter.

Garos Hills district is basically an agricultural district with about 80 percent of its total population depending entirely on agriculture for their livelihood. The hilly terrain and land condition of the district do not offer much people in bringing additional areas for additional areas under wet cultivation, but, the district has a vast potential for developing horticulture. The agro-climatic variation within the district offers much scope for cultivation of temperate as well as tropical fruits and vegetables.

Besides the major food crops of rice and maize, the district is also renowned for its horticultural crops like orange, lemon, pineapple, guava, litchi, banana, Jackfruits and temperate fruits such as peach & cashewnuts, etc. Potato, ginger, turmeric, black peppers, arecanut, tezpatta, battle leaf, short-staple cotton, jute, mesta, mustard and rape seeds etc. are some of the important cash crop in the district.

Apart from the above, the Garo Hills district have achieve signal success in the cultivation of non-traditional crops like tea, cashewnuts, oil-seeds, fruits, mushroom, coffee, rubber, and wheat etc. are some of the important cash crops in the district. In order to provide assured irrigation to the cultivation and thereby ensuing increase production, a number of minor irrigation facilities has been envisaged. Live-stock and dairy farming have tremendous potential for generating self-employment avenues to the people including educated unemployed youths of the district. The other programme is to assist the people in raising fodder and pasture to graze their cattle and other live-stock. Sericulture, weaving, poultry and piggery is also another important means of income among the women folks of the district.

The Garo Hills Eco-System

Beyond the Deccan plateau after the Raj Mahal Hills an across the Ganga-Brahmaputra Doab towards east, the first hill complex of N.E. India encountered is the Garo Hills. It is the western most end of the Meghalaya plateau forming first link in the chain of hill eco-system of NE India. The plateau is dissected into the irregular spurs and the valleys of Garo Hills but left as a rolling plateau in the Khasi Hills proper, which is undissected shape by a few deep and cliff sided gorges to its precipitous southern scarp, only its northern side continuing the character of Garo Hills. Culturally the Garo Hills are in transition between the civilization of Indian sub-continent and S.E. Asia.

The Garo Hills eco-system is endowed with rich flora and fauna which provided food to hunters and gatherers in the past. Agriculture is governed by tropical monsoon climate of moderate to high rainfall, warm summers and mild winters; wet tropical

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forests; fertile loamy soils in the hills and valley plains and alluvium in the narrow flat valleys; well developed drainage system etc. Other resources are coal, limestone, white clay, kaolin, glass sand, iron ore, gypsum, quartz, feldspar, phosphate and silimanite but at present, clay is utilized in a few potteries and brick making units. The eco-system also has high potentiality for universal base industries with the rich natural resource base, enlightened people and low population density, the Garo Hills are ironically one of the economically undeveloped regions of India. The continuum of wet paddy fields, landscape of the surrounding plains has penetrated into hills through the broad valleys. Proximity to developed societies, presence of fertile valleys, monsoon climate and innovative people have played significant rôle in bringing comparatively an early change from Archaic form of plant cultivation with slash-and-burn method to settled plough farming.

Forest

Forests has always been an integral part of the people of the district. Be it for timber, fire wood or other forest produce like broomstick, bay leaf, chimamon, etc. Forests have been the source of sustenance to the ever-increasing need of men. However, the rich bio-diversity of primary forests are disappearing as they give away to only secondary scrub forests due to their continual exploitation by the people.

The forests under the control of the state government and the district is very small as compared to the total geographical area. The rest and the maximum area of the forest falls under the control of the clan, community or privately own had been recklessly exploited for agriculture and commercial purposes.

The forest types in the district of Garo hills includes the sal forest, mixed moist deciduous forest, the evergreen forests, bamboo forests, and grassland forests. Some of the important and valuable timber species includes the Sal, Gamari, Titachampa, Teak, and Salmakri. Many rare plants which have become endemic to only certain pockets includes the pygmy lily, pitches plants, sundew, wild citrus, some rare bamboos, canes, and a number of varieties of orchids including the ladys sleeper orchids.

There are two national parks in the district of Garo Hills, viz., Balpakram National Park and Nokrek National Park or Nokrek Biosphere Reserved Forest. The wild life sanctuary located at Siju in South Garo Hills. This National Park and Wild Life Sanctuary form the habitat for a number of rare and threatened birds and animals. Some of the birds which are unique to the area includes the great pied hornbill, Kalizphasan, Amara dove, Red Jungle Fowl, Peacock, peasant, Racket tail, Drongo, Himalayan-Golden Back, Wood Pecker, Black Napped Oriole. The check list of animals includes the binturong, Clouded Leopard, Flying Squirrel, Golden Cat, Striped Hare, Hoolock Gibbon, Gaur, Tiger, Elephants and number of snakes and pythons. The Forest Department in the state, district authorities has been making a lot of efforts in a forestations of the already barren areas with the help and co-operation of local peoples. For the control of pollution in the urban area, erratic rainfall and climate changes, planting of trees in every vacant place and protection of existing forest with its wildlife has become an immediate necessity.

For the administrative control, the forest of a district of Garo Hills may be classified into five categories -

Pl. Substantiate

Give scientific classification

Nothing about unique these!

Pl. check names!

How much area is under forest cover?

References?

- 1. Reserved Forest
- 2. Unclass State Forest
- 3. Private Forest
- 4. Protected Forest
- 5. Village Forest

Only the reserved and protected forest are under the management of the state government. The rest are own by the individuals, clans, or villages or they are controlled by the District Council.

The area under different reserved forests of Garo Hills is given with the appropriate area occupied. Out of sixteen reserved forests, the West Garo Hills have only three reserved forests.

Area Under Reserved Forests, Garo Hills

Darangiri Reserved Forest	10356 Sq. Km.
Songsak Reserved Forest	23390 Sq. Km.
Dambo Reserved Forest	18129 Sq. Km.
Rongrengiri Reserved Forest	36259 Sq. Km.
Chima Bongri Reserved Forest	23309 Sq. Km.
Dima Reserved Forest*	20720 Sq. Km.
Rajasimala Reserved Forest	18130 Sq. Km.
Ildek Reserved Forest	2560 Sq. Km.
Dilma Reserved Forest	2560 Sq. Km.
Angratoli Reserved Forest	30043 Sq. Km.
Baghmara Reserved Forest	44288 Sq. Km.
Siju Reserved Forest	5180 Sq. Km.
Rewak Reserved Forest	6473 Sq. Km.
Emangiri Reserved Forest	8283 Sq. Km.
*Dibru Hills Reserved Forest	15022 Sq. Km.
*Tura Peak (Catchment Area)	3890 Sq. Km.
Total	268516 Sq. Km.

Ecosystems other than forests? 0

Agrodiv. ? 0

Garro Hills - Production and Yields of Principle Crops

Crops	Garro Hills		Meghalaya	
	Production	Yield	Production	Yield
Rice	61633	1075	119302	1143
Wheat	1760	1196	1800	1200
Jute	35000	1260	35000	1260
Maize	4290	858	11324	700
Cotton	3350	748	3350	75
Mesta	25200	648	25200	648
Banana	21742	13504	49200	13297
Potato	3315	5023	7300	4060
Sweet Potato	3350	5000	12590	3357
Tapioca	3972	4389	10272	5254

Area and Production of Crops

Crop Categories	Garro Hills	Meghalaya
Total Food Grains		125397 (68.30)
Area	65557 (35.71)	135309 (100.00)
Production	68772 (50.82)	
Oil Seeds		7499 (4.08)
Area	7400 (4.03)	3596 (100.00)
Production	3551 (98.75)	
Fibre		19542 (10.64)
Area	19542 (10.64)	63553 (100.00)
Production	63553 (100.00)	
Miscellaneous		31147 (16.98)
Area	5800 (3.16)	151772 (100.00)
Production	34899 (23.00)	
Total Area	98299 (53.54)	183585 (100.00)

Note: Values in brackets indicate percentage.

Animal Husbandry and Dairy Farming

Animal Husbandry and Dairy Farming occupies an important place in the economy of the districts. According to the live-stock census, the region has approximately 2.5 lakh cattle, 0.55 lakh buffaloes, 0.25 lakh sheep, 0.65 lakh goats, 0.03 lakh horses and ponies and 1.6 lakh pig. The live-stock wealth derived its importance from the pre-dominant agrarian economy with suitable climate and grazing facilities. The distribution and number of veterinary institution in whole Garo Hills, i.e., East, South and West Garo hills is given below -

CHAPTER – III

ECONOMY

Nothing on the sel. of people to bio div. / the traditions, customary practices etc.

Agriculture

Garro Hills is predominantly an agricultural district where more than 85 percent of the total population live in rural areas and depends on agriculture for their livelihood. Although agriculture occupies a very important place in the economy of the region, only about 15 percent of the total geographical area is available for cultivation of crops. The rainfall in the region is adequate for agriculture but due to the rugged topography and less productive soils, it has not been able to give as satisfactory results except the surrounding villages in the plains and valleys along the border fringes which form a part of Brahmaputra Valley in the north western part of Garro Hills and also along the southern slopes bordering to Bangladesh.

The district-wise land utilization and area under whole of Garro Hills, i.e., East, South and West Garro Hills is given below –

Garro Hills District Wise Landuse, 2000

Items	E. Garro Hills	W. Garro Hills	S. Garro Hills	Meghalaya
Reporting Area	260300	371400	18500	2240900
Forest	124750	167602	101746	950000
Not Available for Cultivation	10337	21736	9418	220245
Other Uncultivated Land excluding fallow Land	66528	60378	31390	602670
Fallow Land	26785	57720	24143	231600
Net Sown Area	28900	63964	18303	218385
Area Sown More Than Once	5226	19931	4742	44445
Total Cropped Area	34126	83895	23035	262830

Source: Directorate of Economics and Statistics, Meghalaya

What sel.?

Garo Hills – District-wise Breakup of the Services Veterinary Hospitals/Dispensaries, 2000

Districts	Animal Treated	Castration Done	Artificial Inoculation	Inoculation/Vaccination
East Garo Hills	25	0.8	1.5	25
West Garo Hills	292	6.5		107
South Garo Hills	45	2.5		20
Meghalaya	817	18.9	22.4	371

District-wise Breakup of the Number of Veterinary Institution, 2000

Districts	Hospital	Dispensaries	Aid Centres	Key Vill. Centres	Intensive Cattle Dev. Projects	Stockmen Centre	Veterinary Doctors, Surgeon
East Garo Hills	-	8	9	-	-	9	12
West Garo Hills	1	12	9	1	1	21	29
South Garo Hills	-	3	5	-	-	4	4
Meghalaya	4	59	64	2	2	86	171

The population of live-stock like cows, pigs, poultry, goat, sheep, horses, ponies, are mostly reared in Garo Hills based on good climatic effect for the availability of grazing lands. It is observed that more than 70 percent of the buffaloes and about 50 percent of cattle are reared in Garo Hills. The high concentration of domesticated animals like buffaloes and cows in the Garo Hills Districts is due to its warm climate, because of low-lying areas, grazing facilities and their demand for ploughing the land.

Since, pork, formed a part of the menu of most of the Garo and other tribal people, pig are reared in large number. The government has taken various steps to develop piggery industry in Garo Hills. The geo-economic conditions are quite favourable for development of animal industry and dairy farming in the region. The economy of rural population will greatly improve if the scientific method of animal husbandry and dairy are adopted.

Industry

In spite of the fact that Garo Hills is rich in mineral, forest or agricultural resources, it is industrially backward. Only less than 4 percent of the population of the district depends upon industry as compare to the other parts of India the reason is significant industrially, although some industries are important from the regional point of view. The location of various industries shows that Garo Hills Districts is industrially more developed within Meghalaya State. The industries of the district may be grouped into the three categories –

Not clear?
& source?

1. Large Scale industries
2. Medium Scale industries
3. Small Scale industries

The distribution of those industries among the cottage industries, mention may be made that bamboo and cane works are very famous within the districts. Other cottage industries of the districts are – Pottery, Blacksmithy, Tailoring, Carpentry, Bee-Keeping.

Number of Registered Small Scale Industries (Units) in Garo Hills, 2000

Source 7

Name of the Trade	No. of Units
Blacksmithy	15
Carpentry	16
Bee Keeping	4
Pottery	2
Bakery	30
Cane and Bamboo Works	7
Vehicle Repairing or Servicing Works	15
Welding and Vulcanising Works	16
Tin-Smithy	9
Printing Press	8
Textile Handicrafts Manufacturing Units	8
Rice, Oil, Atta, Chakki Mills	20
Saw Mills	8
Bricks Making Units	17
Tire Retreating Units	25
Truck Raging Units	8
Tailoring	60
Cycle Repairing Units	50
Manufacture of Pencil and Chalk	5
Candle Manufacturing Units	10
Washing Shop Manufacturing Units	7
Steel or Foundry Works	8
Knitting Units	17
Sign Board Manufacturing Units	10
Cobbler	15
Wood Curving	11
Sugar Candy, Lozenzy Factory	5
Cabinet Making	4
Oil Ghani Manufacturing	5

In Garo Hills Districts, there is no large scale industry set up so far. There are 12 medium scale industry and 423 small scale and cottage industries set up in 2000. Sericulture and weaving rearing of silk worm and cocoons are fed on the leaves of wild berry trees. Hand woven and weaving is very much developing in the whole of districts

as the Garo and other communities who lived in Garo Hills used their own clothes and dresses.

The Garo Hills Districts may be divided into four economic regions such as

- (a) Forest Regions,
- (b) Agricultural Regions,
- (c) Agricultural and Livestock Regions,
- (d) Mining Regions.

The industrial activities of the districts may be divided into the following six industrial regions or nodal centers. They are –

- (1) Tura Urban Industrial Regions
- (2) Phulbari Industrial Regions
- (3) Garo-Badha Industrial Regions
- (4) Mendipathar Industrial Regions
- (5) Dalu-Baghmara Industrial Regions
- (6) Simsangiri Industrial Regions

The main causes of the slow progress of industrial activities and the backwardness of the district is due to the terrain and the topography in respect of inaccessibility, quite low population, illiterate, unskilled and untrained, absence of proper road and communication, transport, power and other incentive capital involvement, banking loan facilities, etc.

Tourism Industry

Meghalaya dotted with a number of lovely tourist spots, where nature unveils in all her glory. Garo Hills is known for its abundance of flora and fauna should interest naturalist and photographers to capture the variegated facets of life, of a unique range of flora and fauna. Three mountain ranges, the Rangira range, Arabella range and Tura range pass through the Garo Hills. The headquarters, town of Tura is situated 323 kms. via Guwahati from Shillong at an altitude of 657 metres. The highest point is Nokrek peak with an elevation of 1,412 metres. Some important Eco-Friendly Tourist Spots of Garo Hills are indicated briefly as follows -

Tura

Tura has a picturesque landscape of hills against a backdrop of low-lying plains. A sunset view can be best seen from Tura Peak at 1,400 metres and its summit can be reached by a five kilometres trek, partly by hiking and also by rock-climbing.

Siju Cave

Located on the cliff overhanging the right bank of the Simsang River in South Garo Hills district, the Cave is locally known as *Dobakhol/ or the Cave of Bats*. The cave consists of innumerable internal chambers and labyrinths, which have not yet been fully explored. The depth of the Cave is yet to be fathomed.

The cave is totally dark with a perennial stream flowing out of it, which abounds with different forms of aquatic life.

The formation of stalagmites and stalactites in these caves resemble those of *Blue Grotto* in the Isle of Capri.

Siju Bird Sanctuary

Just across the Siju Cave on the other side of Simsang river in the South Garo Hills where you can spot many rare and protected wild birds - during winter some migrating birds have been visiting this place, which be an added attraction to wild life lovers.

Nokrek Peak

The highest point of the Garo Hills region of the State, is the *Nokek Peak*. A virgin canopy of thick, tall and lush forests cover Nokrek and its environs.

The Nokrek National Biosphere Park has established at Nokrek and it abounds in various Wildlife including herds of wild elephants, rare varieties of birds and pheasants, besides rare orchids.

Sisobibra

A place of historical importance where the Garos fought their last battle against the British under the command of Pa Togan Nengminja. It is just 12 kms from Williamnagar on the way to Tura on the bank of the mighty Simsang river.

Imilchang Dare

It is a Waterfall of immense visual beauty. The deep green environs full of large ferns, tall creepers and elegant climbers complete the desired effect, making *Imilchang Dare* a memorable sight. The deep, wide pool at the bottom of the falls with its wide and expansive surrounding make it an exciting natural swimming pool, full of fish of varied size and colour, besides being an ideal picnic spot.

Williamnagar

Headquarter of East Garo Hills District encircled by the Simsang river - has been named after the first Chief Minister of Meghalaya Capt. Williamson A. Sangma.

Bhhaitbari (An Archaeological Treasure)

Located on the western frontier of the State. Bhaitbari is a small village of West Garo Hills District. The site is renowned for the archaeological finds having been uncovered after protracted 'excavations' on the area. The finds are of artefacts which reveal the existence of planned places of worship.

The Bhaitbari excavations are certainly of immense historical and anthro-political interest and importance.

Rongbang Dare (Waterfalls)

This sprightly fall, though perennial, is at its best during the monsoon months. It presents motorists driving from Asanangre towards Williamnagar, a romantic visual of lasting satisfaction.

What is the best of all these details with biodiversity

Clustered on either side by vast evergreen hills of bamboo, the falls itself appears to be on the sway, leaving the viewer with memories of ecstatic joy.

Chibragre

Meaning confluence of 2 rivers is just 25 min. drive from Tura. A veritable picnic spot with its lush green surrounding and breath taking beauty. The traditional hanging bamboo cane bridge suspended over the Ganol river from bank to bank - lures many picnickers to try this swinging bridge.

Rongdang Falls

Just above the famous Siju Cave in the midst of green thick jungle, you can see a beautiful Waterfall cascading down.

The Festival of Wangala

The major festival of the Garos, Wangala, celebrates the Autumn Harvest. Held every year between November and December, it begins with propitiation, ceremonies to the deity *Patigipa Rarongipa-Misi Saljong*, held in every village. It is followed by other elaborate rituals entailing four days and nights of universal dancing and merriment. It culminates in the warrior's dance - *the dance of hundred drums* - on the final day. It is a festival which is colourful, spectacular and enjoyable for the entire community.

Connections

Most parts of the Garo Hills are negotiable through day-trips from Tura and Shillong. Conducted tours are available, through M.T.D.C. as well as Private Operators, between Shillong and Tura. Taxis are also available.

CHAPTER – IV

N.B.S.A.P ACTIVITIES

The Garo Hills District is a part of Meghalaya plateau with beautiful undulating ranges with rich flora and fauna such as wild animals, birds, reptiles, different medicinal plants, valuable trees, orchids, etc. in the past. The Garo tribes have inhabited/settled in the area since time immemorial. The main occupation of the Garo tribes, the traditionally practiced jhum cultivation, i.e., by way of cutting down the jungle growing different types of maize, rice, vegetable for their livelihood. The plot jhum cultivation is shifted after two years for another plot of land. The continuous cutting of forest/jungles for the cultivation purpose created all the ill-effects in the area such as top cover of soil erosion, drying up river beds, distribution of valuable timber trees, extinction of traditionally used medicinal plants, banks and roots, flower and orchids, wild animals like tiger, elephants, leopards, deer, pythons and different kinds of birds and fishes in the stream, rivers and lakes. Not only that it affects the uncertainty of climatic condition and health hazards of the people like malaria, cholera, black fever and leprosy till 1950.

Man live with his surroundings for their livelihood and survival. Man depend on nature for every development, to change in his lifestyle and co-existence. But the present condition of the gifted nature on earth is in extinction due to the misuse of man, greediness for wealth and wasteful exploitation of its natural resources. The vegetation cover, including kinds of plants, the animal life on earth's surface and water bodies are of our great concern to preserve and maintain for future human existence and future purposes. From this view point, the present exercise of the activities of the NBSAP project on the West Garo Hills, aims at maintaining and preservation of the natural flora and fauna by way of educating the rural people how to make the best use of the natural resources.

The project work took an advantage of partnership for Bio-Diversity advocacy among the state bonders with effect from 20th July 2000, just after the National Bio-Diversity Strategy Action Plan Workshop held at New Delhi on 22-23rd June 2000. It is to create awareness and educate rural masses who are uneducated people, practice jhum cultivation in the hills. The awareness camps have been conducted in different centers and villages. Before carrying out the Awareness Camps, the proper consultations, advices, co-ordinations are done with state and district authorities of Garo Hills Districts such as –

1. Deputy Commissioner, Tura, West Garo Hills
2. Civil Sub-Divisional Officer, Dadengiri
3. Civil Sub-Divisional Officer, Resubelpara
4. Civil Sub-Divisional Officer, Ampati
5. District Agriculture Officer, West Garo Hills, Tura
6. District Horticulture Officer, West Garo Hills, Tura
7. Divisional Forest Officer, Wildlife, West Garo Hills, Tura
8. District Malaria Officer, West Garo Hills, Tura
9. Conservator of Forests, Western Range, Tura
10. Conservator of Forests, territorial, Tura
11. Divisional Soil Conservation Officer, Tura

Note the hard sustainable nature of jhum.

What - deforestation?

71

00

?

What is??

Supposed to hold pub. hearings & consultations

What was their nature?

12. Block Development Officers of Resubelpara, Tikrikilla, Selsela, Rongram and Jikjak
13. Eco-Development Board, West Garo Hills, Tura
14. Educated and Intellectual Group like Principal, Tura Government College, Tura
15. Pro-Vice-Chancellor, NEHU, Tura Campus, Tura
16. Principal, Durama College, Tura
17. Businessmen, Contractors, and Suppliers, etc.
18. The Village Chieftain/Headman of the District
19. The Aking Land Nokmas (Owner of the land)
20. Other important Personalities including School Teachers

Out of the above mentioned state, district, educational institutions, officials, Nokmas (owner of land) and other important social workers and village women-folk were formally selected to be the members in the Local Advisory Committee (LAC) constituting 22 (twenty-two) members with their consent. A copy of the LAC members had already sent to the Member Secretary/TPCG, New Delhi.

The first Local Advisory Committee Members (LACM) meeting was held at Circuit House Meeting Hall at Tura, West Garo Hills, on 2nd October 2000, where Deputy Commissioner, Tura, Professor P.C. Bhattacharjee, Guwahati University and TPCG member of the NBSAP project and other dignitaries along with the District officials attended for meaningful discussions and suggestions of the project. The minutes of the LACM meeting was already sent to the Member Secretary of the project for necessary action.

As far NBSAP Brochure, "A Call for Public Participation" guidelines were followed and conducted "Public Hearing Cum Awareness Camps" on 10 (ten) selected jhum villages of garo Hills on different dates and places as follows –

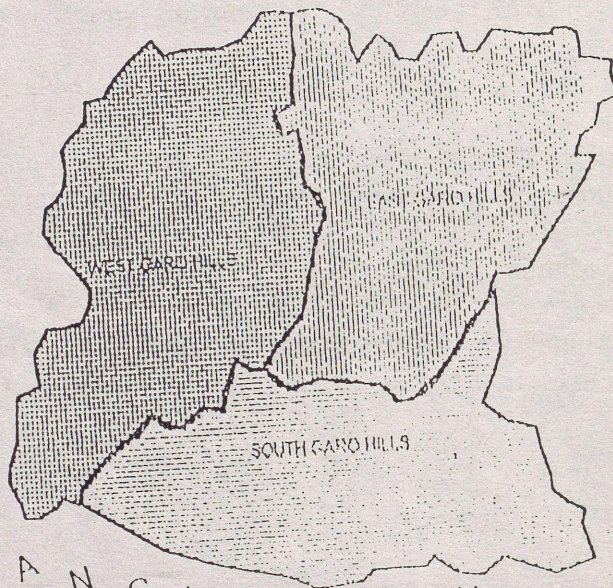
- i) Dobokjakolgiri Village Covering fifteen (15) jhum villages on 10.09.2000
- ii) Rembegiri Village covering 10 (ten) jhum villages on 11.09.2000
- iii) Ist Local Advisory Committee Members Meeting (LACM) held at Tura Circuit House with thirty five (35) members on 02.10.2000
- iv) Bolsaldamgiri Village covering 7 (seven) jhum villages on 07.10.2000
- v) Post Graduate Students, NEHU, Tura Campus, W.Garo Hills on 10.10.2000
- vi) Mronggiri Bikonggiri Village covering 8 (eight) villages on 15.02.2001
- vii) Gimbegiri Village covering 10 (ten) jhum villages on 15.02.2001
- viii) Chisikgiri jhum village covering 12 (twelve) jhum villages on 18.02.2001
- ix) Pedaldoba Village covering 8 (eight) jhum villages on 21.02.2001
- x) Raksangiri Village consulted with Village Headman and School Teachers on 28th July 2000

The Public Hearing Cum Awareness Camps conducted on 10 (ten) different villages and locations covered 82 (eighty-two) jhum villages of West Garo Hills. The proceedings of those awareness camps with number of photographs of each camps were also attached and have been submitted to the Member Secretary of the project (NBSAP) earlier.

NBSAP LOCAL ADVISORY COMMITTEE MEMBERS
(Sub-State Site, West Garo Hills, Meghalaya)

1. Sri T.T.C. Marak, IFS, Conservator of Forests, West Garo Hills
2. Sri Winston G. Momin, DFO (Wild Life), West Garo Hills, Tura
3. Sro Hemotsing K. Marak, District Horticulture Officer, West Garo Hills, Tura
4. Sri Sengran A. Sangma, Divisional Soil Conservation Officer, West Garo Hills, Tura
5. Sri Brlin M. Sangma, District Malari Officer, West Garo Hills, Tura
6. Sri Singrang Sangma, Nokma (Chieftan of the land) Dandarigiri, West Garo Hills
7. Sri Jongjing Marak, Nokma (Chieftan of the land) Rembigiri, West Garo Hills
8. Sri Pudusing Marak, Nokma (Chieftan of the land) Dobokjakoligiri, West Garo Hills
9. Smt. Bremish Ch. Momin, School Teacher and Social Worker, Pedaldoba, West Garo Hills
10. Smt. Zippora A. Sangma, Social Workers, Raksamgiri, West Garo Hills
11. Smt. Indira A. Sangma, Sr. Lecturer, Tura Govt. College
12. Smt. Heroin B. Sangma, Retd., Dy. Director, Information and Public Relation, Tura, Meghalaya
13. Sr. Baniswar R. Marak, School Teacher and Social Worker, Matchokgiri, West Garo Hills
14. Sri Suparam Marak, Member, SEPARD, Pdealdoba, West Garo Hills
15. Sri Menathson Sangma, Secy, SEPARD, Upper Kongrapara, West Garo Hills
16. Sri Balsin Marak, Member, SEPARD, Balbalgiri, West Garo Hills
17. Smt. J.G. Momin, Treasure, SEPARD, Pedaldoba, West Garo Hills
18. Sri Elwinath Marak, Chisikgiri, West Garo Hills
19. Sr. P.G. Momin, President, SEPARD, Pedaldoba, West Garo Hills
20. Smt. Sabith Momin, Social Worker, Tura Wadanang, Tura

GARO HILLS



B A N G L A D E S H

CHAPTER - V

STRATEGY ACTION PLAN

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The latest informations, fact and figures are collected and placed for necessary reference at the background of this exercise of the project. On the basis of the LAC members meeting held at Tura, West garo Hills and Public Hearing Cum Awareness Camps, the suggestions based on discussions with participants, illiterate jhumia cultivators, Nokmas, Gaonburas, school pupils and teachers and other walk of life, etc., **The key and pin point** strategy Action Plan is suggested for the Garo Hills District are as follows -

- 1) The jhum cultivation which practiced traditionally in Garo Hills is to be reduced substantially and slowly by way of diverting the activities of the *people and mode of livelihood* to -
 - (a) Horticulture - cashewnuts, bettlenut, rubber plantation, pineapple, coffee and orange plantation
 - (b) Encouragement with financial assistance for Pisciculture development and pond construction
 - (c) Economically and quick benefited scheme for piggery and poultry farming development to be undertaken
- 2) Development of handloom weaving activities among the young women-folks in rural areas along with the proper training, marketing and financial support
- 3) Village Resource Forest Development and Afforestation Programmes including protection to the Sacred Grove Forest in the selected villages and locations
- 4) Development and assistance to the Traditional Tribal Medicinal Plants and Herbs to the Local Ojhas/Gabirajs to the selected village forest
- 5) Preservation/Storage facilities to the locally available horticulture produced to be set up with proper transport and marketing facilities (to stop exploitations of the other people across the state)
- 6) Fruit canning/processing industry to be established at Chibenang and Tura for orange, ginger, guava, pineapple, lemon, cashewnut, tapioca, and jack fruit, etc
- 7) To continue the Public Hearing Cum Educational Programmes in the interior 'jhumia' villages of Garo Hills
- 8) Not only to reduce the traditional jhum cultivation, it is also necessary to educate and give awareness to the young mothers to reduce the size of the family by way of Family Planning Method by setting up more Family Health Care Centres in the remote areas of the region
- 9) Un-plan coal extraction to be stopped. Systematic and scientific method of coal extraction to be adopted.

*Biodiv.
implications?*

*Nothing on
this
earlier?*

*Nothing
on
this
earlier*

*In-situ conservation?
equity issues?*

*Bio
link???*

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Put
as per
format
alphabet

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ashish kothari

Use
West Garo
Comments
by
PCB.

From: KVDelhi <nbsapna@vsnl.net>
To: ashish@giasdl01.vsnl.net.in; kanchik@vsnl.com; kalpavriksh@vsnl.net; biotech@nda.vsnl.net.in
Cc: bhattapc@sancharnet.in
Subject: Fw: Manipur comment
Date: Tuesday, April 16, 2002 10:01 AM

please see the mail from PCB for information Khel _____

Kalpavriksh-NBSAP

J-20, Second Floor,

Jangpura Extension

New Delhi-110014

Telefax: 011-4316717

Email: nbsapna@vsnl.net <mailto:nbsapna@vsnl.net>

<http://sdnp.delhi.nic.in/nbsap> <<http://sdnp.delhi.nic.in/nbsap>>; <http://kalpavriksh0.tripod.com>

<<http://kalpavriksh0.tripod.com>>. ----- Original Message ----- **From:** P.C.Bhattacharjee

<mailto:bhattapc@sancharnet.in> **To:** KVDelhi <mailto:nbsapna@vsnl.net> **Sent:** Tuesday,

April 16, 2002 6:01 AM **Subject:** Re: Manipur comment

Dear Khal, I am sending this piece to Dr.Momin by post, as his e-mail is not working.I have already sent this to Tony marak (CCF) for comment and addition.marak has send me the neme of few species which are important for garo-hills.Send / or show that to Asish after he returns. My e-mail is giving me trouble beyound imagination. The trouble has crossed all limits even in NE situation.Please try to contact me by telephone. Yours PCB

West Garo hills: (sub-state site)

Strategy and action Plan:

The people of West Garo hills are poor and economically backward and deprived. People are poor in presence of Plenty; The three tire administrative setup, the state Government, District council and the traditional land owners; Nokmas; has made the developmental work, and decision making procedure very complicated and time consuming. The culture, the tradition and the traditional institutions are strong and accepted in the society. The simple life style, complete dependency on forest, low productive agriculture and the total lack of marketing facilities of the produce; has kept the door of exploitation wide open; **This help less situation has created the low motivation for the survival with an economically better off position**

The lack of proper planning of the economic upliftment of the poor- has thrown the biodiversity conservation and other related issues in the background. Hence, the strategy which could be devised for the conservation of the rich biodiversity of the district will have to be formulated in such a fashion that it touches the core issue of the economic development of the people, satisfy their basic need.

Both short term and long term planning has to be taken for the future activities.

- **Section A:**

Forest and related issues:

In West Garo-hills the forest ecosystem are the main site for the biodiversity conservation.

The supreme court ban on the indiscriminate falling of trees, has effected the forest related economy of the area. The people who were working as daily labour to various forms of activities related to forest has been in dire state. The judgment though gave provision of the exploitation of the forest product by the tribal for their day to day need, **has not been properly understood.** No efforts ever been made to properly interpret and present the issues



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Date : 06th April 2002



Mr. Ashish Kothari
Apt. 5, Shree Dutta Krupa
908, Deccan Gymkhana
Opp. Bhandarkar Road
PUNE - 411 004



Dear Ashish,

We wish to inform that all Indian passport holders, even if, transiting through Charles De Gaulle, Paris i.e., not leaving the Airport, requires transit visa.

We further understand that this restriction is being imposed by the French Border Police, who handle immigration at Charles De Gaulle Airport and that, all the other waivers, if, earlier advised by the French Embassy, are not valid.



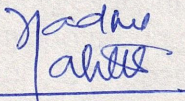
The foregoing is for your information.

Thanking you and assuring you of our best services always.

With regards,

Yours sincerely,




S.P. AERY



leading to such a ban , and the other provisions inbuilt therein.

Strategy: (1)Improvement for the increase of the productivity of the forest
(2) emphasis on Non-timber forest produce (NTFP)

Action:

1. Identifying areas of mass plantation, in land of community conserve areas. Some areas be demarcated as **energy garden** for the fuel wood for the people. Forested areas have a big plantation scheme for the proper benefit of the forest as **system** with appropriate trees in view to increase the productivity of the forest. Encouragement to Nakmas for plantation even by giving incentives.

2. **Medicinal plants cultivation:** Mass scale cultivation of the medicinal plants and processed them upto **semi finished product** (value edition) which in tern will be bought by the medicinal companies.

3.**Partnership between Government and people** : The land ownership and the land use pattern of West Garohills , is an appropriate example of a long standing partnership between people and the Government. **Thangkarang PARK**; of East Kashi hills can be a model for such partnership.

4. **Traditional healing centers:** The traditional herbal medicine are still being widely used and the people has great faith in such type of medicine. Hence, **traditional healing centers** could be established. This will help to the collection of the MFP and help the people.

5. **Bamboo and cane based industries** : Bamboo based industries has got great future in Garo Hills. The central govt. plan of bamboo plantation can help in the funding. The establishment of the processing factories, upto semi finished products stage, be established. The training of the people particularly the woman is important.

6. **Other agro based industries** : Spices, broom stick, orchids etc have got very good scope of producing and marketing. The tissue culture of orchids and their export through the International Air port of Guwahati has been viewed with great expectation.

B. Section: Agriculture:

Jhum cultivation at west Garo-hills could broadly be identified as the **curse** of the area, unlike some other states of NE region, where the Jhum cycle is long and also contributing to biodiversity conservation. There are villages where the produce from the Jhum land can sustain a family only for 15-30 days in a years. Though the biodiversity in the jhum areas are important for gene pool conservation, as some of the species of cultivable plants are the wild relative of the commercially cultivated species else where.

Alternative to Jhum for the people will have to be offered as early as possible.

- **Horticulture:** Govt. of Maghalaya has already started encouraging cashewnut, bettlenut, rubber , pineapple , coffee and orange plantation as an alternative to Jhum. But the major draw back of such activities are the **proper and gareented marketing facilities**. Hence , due to the non-availability of the proper marketing , the villagers are already suffering. So establishing the proper marketing should be **the top priority**, to save the people and subsequently the biodiversity of the area. Jack fruit based industry has great potential, particularly in distilleries be encouraged.
- **Fruit canning factories be immediately established for the economic development of the people.** The center be established at **Chibenang and Tura** for orange, Guava, pine apple, lemon, caswe nut, tapioca and jack fruit.
- **Pisciculture:** Funding for pond construction and fishery development be encouraged.
- **Piggery and poultry** : these economic activities be encouraged by bank

Jana Natya Manch

J-147, R.B. Enclave, Paschim Vihar, New Delhi 110063

Ph.: 011-5264822, 3356966, 3359456

e-mail: janatyamanch@yahoo.com

April 2, 2002

Resolution

The All India Meeting of Street Theatre Activists strongly condemns the State sponsored genocide of Muslims in Gujarat. The genocide in Gujarat is not over. Far from the Narendra Modi government's claims of having contained the violence within 72 hours, the fact is that over a month after the Godhra killings, the carnage continues. What is crystal clear is that carnage was premeditated, pinpointed, and well-planned, and not a natural reaction to the terrible atrocity of 58 people, mostly women and children, being burnt to death on the Sabarmati Express in Godhra. The fact that Muslims and their properties were selectively targeted, the fact that the police not only colluded in the killings but often participated in them, the fact that Ministers of the State Government have been seen leading the killers, the fact that a month after the carnage began neither compensation nor rehabilitation of the victims is being carried out, all this proves that the BJP government is guilty of genocide. The BJP-led Central Government has provided patronage to the Gujarat Government and given it a clean chit. This is the true face of the Sangh Parivar's fascist agenda of the Hindu Rashtra. It also provides a glimpse of what is in store for the rest of the country if the fascists are not stopped.

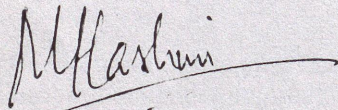
The truth of the Gujarat genocide must be known all over the country. 12 April is National Street Theatre Day. **The All India Meeting of Street Theatre Activists resolves to carry the truth about Gujarat to all parts of the country and appeals to all democratic sections of the people to join us in observing 12-19 April 2002 as 'Combat Communal Fascism Week'.**

Expose the genocidal face of the Hindu Rashtra!

Combat the fascistic onslaught!

Gujarat must never be repeated!

This call has been issued by Jana Natya Manch, Delhi, Praja Natya Mandali, Andhra Pradesh, Samudaya, Karnataka, Chennai Kalai Kuzhu, IPTA, West Bengal, Haryana Gyan Vigyan Samiti, Rohtak, Jana Natya Manch, Jaipur, Samahar Natya Goshthi, Guwahati, Jagar, Mumbai, Purogamana Kala Sahitya Sangam, Kerala, Disha, Mumbai, Gazar Sanskritik Manch, Nagpur, SAHAS, Cuttak, Kalam, Lucknow, Himachal Gyan Vigyan Samiti, Shimla, Bhavaikyatha Vedike, Karnataka, Janayana, Thrissur, Mukhouta Kala Manch, Guna, Jana Natya Manch, Gwalior



Motayashree Hashmi
(Secretary, Jana Natya Manch)

financing.

C. Section:

Sericulture : Tradition is in support of this economic activity. This should be encouraged on priority basis. Moreover, the sericulture insect are also being used as protein substitute for the poor people. Hence both silk and the pupa and larvae as protein can be obtained with least investment.

D. Wildlife

- **Complete biodiversity inventory:**

After the formation of the new district of West Garo hills, an independent document on biodiversity, having the complete inventory of Trees, medicinal plants, wild agro-biodiversity, fodder plants, grass species, wild animal species of all taxa, will have to be made on priority basis. Proper protection of the endangered species be studies and encouraged to the protected, under the Wildlife protection act or community based protection be given.

2.Ethno-zoological components, except lower groups be discouraged. There should be a complete inventory of the lower group of animals (insects and mollusca) which are being used as food by the people.

3..Man-elephant conflict : The man elephant conflict is a major concern in this sub-state site. Immediate action, like the identified elephant corridor be given protection. Alternative eco-development activities be given to the people, so that the people do not go for the Jhum cultivation in elephant corridor. This must be done in priority basis.

4.Few identified hill stream, which are contributing to the wildlife gene pool conservation of the important species, and which are being over exploited in the form of sand and boulder be declared as protected under Wildlife protection act.

5.More Gene pool conservation site s be established of other plant species, which are endemic to Garo hills.

<p>Wg. Cdr. S.D.Kelkar Chief Finance Officer C-DAC, Pune University Campus Ganeshkhind Road, Pune – 411 007.</p>		VK/GP
<p>Mr.Ajay Atolia S.R. Goyal & Co. Chartered Accountants 1-A, Sayran Colony C Scheme Jaipur – 302 001</p>		GP
<p>Mr.Anil Goyal S.R. Goyal & Co. Chartered Accountants 1-A, Sayran Colony C Scheme Jaipur – 302 001</p>		VK/GP
<p>Mr.Anant Malekar Manager ICICI Bank 'A' Shangrila Garden Bundgarden Road Pune – 411 001</p>		VK/GP
<p>Mrs.Madhuri Mahadik ICICI Bank, Apte Road Pune 411004</p>		VK/GP
<p>Mr.Shrirang Abyankar Iopsis Software 65, Koregaon Park Pune – 411 001 Te.6052678</p>		GP
<p>Mrs.Ashwini Kade GDA Trust Management 1204/24, Shivajinagar Bapusaheb Purandare Lane Pune – 411 004</p>		GP

E Section :

Administrative initiatives:

1. Initiative be taken to identify the present biodiversity conservation component in different planning documents of the state , district council and at local level.
2. Find out the lacuna in administration, act and laws which are hindering the conservation of biodiversity or are contradictory to national or state level biodiversity conservation efforts.
3. Coordination committee (Single door approach)

A small committee , with the representative from Govt, Nakmas and NGOs be formed – who will help the coordination of information gathering about the various developmental related information and personal and cooperative fund sources etc, information about the self help groups : which will help in mitigating the requirement of the people and directly help in the biodiversity conservation.

----- Original Message ----- **From:** KVDelhi <mailto:nbsapna@vsnl.net> **To:** bhattapc@sancharnet.in <mailto:bhattapc@sancharnet.in> **Cc:** biotech@nda.vsnl.net.in <mailto:biotech@nda.vsnl.net.in> ; kalpavriksh@vsnl.net <mailto:kalpavriksh@vsnl.net> ; kanchik@vsnl.com <mailto:kanchik@vsnl.com> ; ashish@giasdl01.vsnl.net.in <mailto:ashish@giasdl01.vsnl.net.in> **Sent:** Tuesday, April 09, 2002 10:46 AM **Subject:** Manipur comment

Dear Prof Bhattacharjee Thanks for your update on NE. Its nice to know that you are in constant touch with many members of northeastern states. We look forward to the full draft BSAP from Arunachal. If you know the exact date of the SSC meeting of Arunachal state please let us know. I would request you to sent comments on Tripura draft BSAP. During your trip to shillong i hope you will be able to pursue with Prof Tripathi to submit the draft BSAP of the Northeast ecoregion at the earliest possible. Hope to hear from you soon after your shillong trip. thanks with warm regards Khel _____

Kalpavriksh-NBSAP

J-20, Second Floor,

Jangpura Extension

New Delhi-110014

Telefax: 011-4316717

Email: nbsapna@vsnl.net <mailto:nbsapna@vsnl.net>

<http://sdnp.delhi.nic.in/nbsap> <<http://sdnp.delhi.nic.in/nbsap>>;

<http://kalpavriksh0.tripod.com> <<http://kalpavriksh0.tripod.com>>.

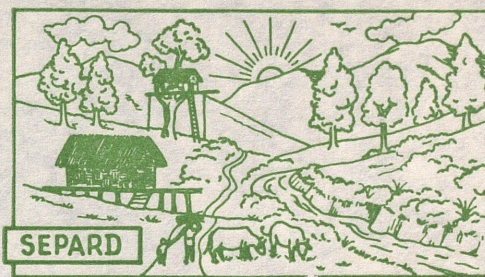
----- Original Message ----- **From:** KVDelhi <mailto:nbsapna@vsnl.net> **To:** ashish@giasdl01.vsnl.net.in <mailto:ashish@giasdl01.vsnl.net.in> **Cc:** biotech@nda.vsnl.net.in <mailto:biotech@nda.vsnl.net.in> ; kalpavriksh@vsnl.net <mailto:kalpavriksh@vsnl.net> ; kanchik@vsnl.com <mailto:kanchik@vsnl.com> **Sent:** Monday, April 08, 2002 10:27 AM **Subject:** Re: Manipur comment

<p>Mr.Suresh Sharma General Manager BHA Group International Pvt. Ltd. Lohia Jain Business,Cener, S.B.Road, Pune – 411 053</p>	GAB	VK
<p>Dr.Ashok Joshi Director BindView India Pvt.Ltd 4th Floor, MRSS Building, 5 B.J. Road Pune – 411 001</p>	GAB	VK
<p>Mr.Tushar Maladkar Director & Chief Executive Biremont India Pvt.Ltd., 'Ashok Sankul' – 1 18 Ashok Nagar Range Hills Road, Pune – 411 007</p>	GAB	VK
<p>Dhiru Desai Managing Director Cirrus Logic Software (I) Pvt. Ltd., 106/A, Mutha Chambers, S.B.Road, Pune – 411 016</p>	GAB	VK
<p>Mr.Ratnakar Mankad Office on Special Duty Cirrus Logic Software (I) Pvt. Ltd., 106/A, Mutha Chambers, S.B.Road, Pune – 411 016</p>	GAB	VK/GP
<p>Mr.Milind Padhye Managing Director & Vice President Cognizant Technology Solutions (India)Pvt. Ltd. Ground Floor, Deepak Nitrate Complex, National Games Road, Opp.Pune Golf Course Pune – 411 006</p>	GAB	VK

Society for Environment Protection & Rural Development (SEPARD)

PEDALDOBA, WEST GARO HILLS, MEGHALAYA

Registered Under Societies Act 70 of 1990, Meghalaya, Shillong
No. SR/SFEPARD - 227/93 of 1993, dt. 18 June 1993



3rd October, 2002

Dear Sir/Madam, *Dr. Ashish Kothari*

This is in response to your earlier request, I am submitting herewith the re-draft of the specific "Strategy Action Plan" of the NBSAP Project for the Sub-State Site : West Garo Hills, Meghalaya. This may kindly be attached to my earlier submitted Draft Report on chapter V, which is to be included in the forthcoming final draft of the said Project.

Thanking you,

Yours faithfully,

(P.G.Momin) 03/10/2002

Coordinator, sub-State Site,
West Garo Hills Meghalaya

1. ✓ Dr. Ashis Kothari,
TPCG- NBSAP,
Coordinator, Kalpavriksh, Apartment 5 Shree Dutta Krupa,
908 Deccan Gymkhana, Pune - 411004.
2. Dr. Vibha Ahuja,
Member-Secretary- TPCG, NBSAP,
Anuvrat Bhavan, 5th Floor, 210, Deen Dayal Upadhyaya Marg,
New Delhi- 110 002

Chapter – V

Strategy and Action Plan

The latest information, facts and figures are collected and placed for necessary reference at the background of this exercise of the project. On the basis of the LAC members meeting held at Tura, West Garo Hills and Public Hearings cum Awareness Camps, the suggestions based on the discussions with the participants, illiterate jhum cultivators, Nokmas, Gaonburas, school students and teachers and people from other walks of life, etc., the key and specific strategy and action plan is hereby suggested for the West Garo Hills District. These are as follows:

Sl	Strategy	Action plan	Priority	Time frame	Implementing agencies	Coordinating Agency
I	Reducing jhum cultivation	1. Review and modify forestry policies to ensure sustainable use of forests	1	5 years	Departments of Forest, Planning, Soil Conservation & Agriculture, GHADCs and NGOs	Forest Department
		2. Frame and promote agricultural policies that enhance preservation of crop diversity and crop varieties and encourage the use of biofertilizers and biopesticides.	1	5 years	Deptt. of Agriculture, ICAR, GHADCs, NEHU, Traditional Heads (Nokmas & Gaonburrahs)	Agriculture Department
		3. Protect and ensure community rights over genetic resources and regulation of their collection.	1	5 years	Departments of Forest, Agriculture & Horticulture, GHADCs, NEHU, Traditional Heads (Nokmas & Gaonburrahs)	GHADCs

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Sl	Strategy	Action plan	Priority	Time frame	Implementing agencies	Coordinating Agency
		4. Establish incentives for effective and equitable private-sector plant breeding and research.	1	10 years	Departments of Agriculture, Horticulture, AH & Vety and Forests & NEHU	Agriculture Department
		5. Audit the consumption of biological resources to raise awareness of the balance between local consumption and production.	2	10 years	Departments of Statistics, Forests, PWD, Agriculture, Horticulture, AH & Vety and, ICAR, GHADCs, NEHU, PWD, MeSEB and PHE	District, Administration
		6. Provide universal access to family planning services and increase funding to support their adoption.	1	10 years	Departments of Planning and Health & Family welfare, NGO/Women NGOs	Health & Family Welfare Department
		7. Increase incentives for local stewardship of forests, public lands and waters.	1	5 years	GHADCs, Local and Traditional Admn, Departments of Forest, Revenue, MSEB	GHADCs

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Sl	Strategy	Action plan	Priority	Time frame	Implementing agencies	Coordinating Agency
		8. Recognize the ancestral domains of tribal and indigenous people and support their efforts to maintain traditional practices and adapt them to changing trends	1	5 years	GHADCs, Art & Culture Deptt, NGO, Traditional Administration	Art & Culture Department
II	Creating Conditions and Incentives for Local Biodiversity Conservation	1. Compensate individuals and local communities who own or depend on land or resources taken for public purposes as per current market values.	2	5 years	GHADCs, Departments of Forest, PWD, Revenue, MSEB, Transport, Agriculture & Horticulture	Revenue Department
2. Manage bio-resources on public lands through new forms of community-state partnerships and cooperation on the lines of JFM		1	5 years	GHADCs, Departments of Forests, Soil Conservation, Agriculture, Horticulture and Traditional Heads	Traditional Heads	
3. Recognize and quantify the economic value of natural products in development and land-use planning.		1	4 years	Departments of Forests, Agriculture, Horticulture & Industries, MECOFED, Marketing Board, GHADCs.	Agriculture Department	

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Sl	Strategy	Action plan	Priority	Time frame	Implementing agencies	Coordinating Agency
		4. Encourage local communities to explore opportunities for developing a larger market share for natural products harvested sustainably.	2	5 years	Departments of Forest, Agriculture, Horticulture & Industries, MECOFED, & GHADCs.	Agriculture Marketing Board
		5. Increase the awareness and local benefits of eco-tourism in natural areas and ensure that tourism development does not affect biodiversity or cultural conflict.	1	5 years	Departments of Tourism, Forest, Horticulture, Agriculture, Arts & Culture and GHADCs.	Tourism Department
		6. Strengthen local capacity for maintaining and benefiting from floral & faunal diversity	1	5 years	Departments of Agriculture, Horticulture, AH & Vety & Forests, SCSTE, NGOs, Traditional Heads	SCSTE
		7. Promote recognition of the value of indigenous/traditional knowledge system (IKS), practices and products	1	5 years	Departments of Arts & Culture, Health & Family Welfare, Education	Education Department
		8. Recognise the role of traditional medicines and ensure their appropriate and sustainable use by the <i>ojhas</i> and <i>kavirajs</i>	1	5 years	Department of Health, Forests, Soil Conservation, Agriculture and Traditional institutions/ Village Council	Health Department

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Sl	Strategy	Action plan	Priority	Time frame	Implementing agencies	Coordinating Agency
		9. Utilisation of bio-resources must ensure protection and equitable returns	1	3 years	GHADCs, Departments of Forest, Horticulture & Agriculture, Village Council, NGOs	Forest Department GHADCs
		10. Build awareness on the importance and values of biodiversity into popular culture	1	4 years	Departments of Arts & Culture, Education, DIPR, Tourism, Village Council, NGOs	Art & Culture Department
		11. Integrate and promote biodiversity awareness and concerns into school and colleges through formal education and non-formal approach	1	4 years	Department of Education, Art & Culture, Forest, Tourism, IGNOU, NEHU, NGOs	Education Department
		12. Establish and strengthen state, local institutions and individuals providing information on conservation and potential values of biodiversity by instituting awards, prizes and other incentives.	1	5 years	Departments of Planning, Statistics, SCSTE, NEHU.	SCSTE
III	Expanding Human Capacity to Conserve Biodiversity	1. Undertake biodiversity inventories/ registers and produce periodic district biodiversity assessments.	1	5 years	Department of Forests, Local and Traditional Administration, NGOs, Schools and Colleges	SBTF/SBA

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Sl	Strategy	Action plan	Priority	Time frame	Implementing agencies	Coordinating Agency
		2. Establish a biodiversity information network to enhance the flow of data for local, district and state assessments.	1	5 years	State NIC, District Administration, Departments of Forest, C&RD, Agriculture, Horticulture, AH & Vety	District NIC
		3. Provide all citizens with legal and institutional guarantees of access to information on development projects and other activities with potential impacts on biodiversity.	1	4 years	All Departments.	PID
		4. Systematically assess national and state biodiversity research priorities by promoting basic and applied natural sciences	2	4 years	Departments of Forest, Agriculture, Horticulture, AH & Vety Art & Culture, Industries, MSEB, SCSTE, NGOs, NEHU	SCSTE
		5. Strengthen social science research on the connection between biodiversity and social processes.	2	5 years	Education & Social Welfare Department	Education Department

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Sl	Strategy	Action plan	Priority	Time frame	Implementing agencies	Coordinating Agency
		6. Strengthen research on ethical, cultural, and religious concerns relating to biodiversity conservation and revive relevant traditional customs and practices relating to sacred groves	1	5 years	Departments of Education, Forest, Art & Culture, GHADCs and NEHU	Art & Culture Department
		7. Increase support for training of biodiversity professionals, particularly in biodiversity rich areas.	1	5 years	Departments of Health & Family Welfare, Forest, Agriculture, Horticultural, AH & Vety., Art & Culture, Industries.	Forest Department or SMPB
		8. Revise career incentives to increase the attractiveness to work in the field.	2	5 years	Departments of Personnel, Labour, Forest, GHADCs	Department of Personnel
		9. Strengthen the influence and capacity of NGOs and CBOs to promote biodiversity conservation in jhum areas	1	5 years	Planning Deptt., ADC, C&RD, NGOs	PID

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Immediate Implementable Actions

Action	Priority	Time frame	Implementing Agencies	Coordinating Agency
1. Encourage the establishment of Community Biodiversity Conservation Centres (CBCC) at District level which will function to document the biodiversity, provide deeper understanding on the benefits from conservation, organize programmes and initiate alternative methods to enhance peoples' capabilities to meet their integral needs, and to provide a link with concerned departments	1	3 years	District Planning Board, District Administration, Forest, C&RD, Agriculture, Horticulture, Sericulture, Animal Husbandry, Fisheries departments and NGOs of the district.	District Planning Board
2. To initiate the exercise of creating and setting up of a database for the State Biodiversity Register starting with Village Biodiversity Registers. Appropriate aids and workshops/ trainings may be given to the village elders/ schools to make them conduct these exercises. The data in turn may be pooled and a database be created.	1	5 years	Village Councils, Schools, CBOs, NGOs, Women's groups	Village Councils
3. Creation and constitution of Environmental Courts in the District headquarter.	1	3 years	GHADCs, District Administration, Law Deptt.	District Administration
4. Necessary legislative, legal and administrative changes are to be made to ban the collection of wild plant species that are rare, threatened, endangered and vulnerable species. Trade related activities on medicinal plants should be properly looked into in view of Biopiracy. However, efforts be made to encourage various communities to cultivate and multiply them on large scale to avoid/minimize collection from the wild.	1	3 years	Departments of Forest, Agriculture, Horticulture and Law, GHADCs, Village Councils	Forest Department
5. Awareness campaigns on	1	5	District Resource	NGOs

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Action	Priority	Time frame	Implementing Agencies	Coordinating Agency
Biodiversity conservation and environmental related activities should be taken up in real earnest on the lines of Total Literacy, Education of the Girl Child, Community and Adult Education etc.		years	Centre, Departments of Social Welfare & Education, NGOs	
6. To immediately initiate the documentation of all aspects of indigenous knowledge system (IKS), revitalize and revived old traditions and beliefs related to conservation practice and to set up Information Cells pertaining to Patents and Intellectual Property Rights (IPR).	1	5 years	Art & Culture department, Nokmaships, and NGOs	NGOs
7. To introduce alternative conservation technology packages suited to the area or region where the conservation programs would be taken up. Plant based (phytochemical) and Eco-tourism industries should be encouraged. Economic incentive and tax benefits be provided to these sectors. Motivation in sharing of benefits accrued from such resources, raw or value-added finished products.	2	5 years	SCSTE, Departments of Forests, Soil, Tourism, Sericulture, Fisheries, Animal Husbandry, KVIC, MCAB, NGOs & Village Councils	SCSTE
8. Traditional herbal practitioners should be given due recognition and their efforts and activities supported by helping them tie up with research institutions.	1	3 years	Departments of Health & Family Welfare, AH & Vety, MCAB, NGOs	Department of Health & Family Welfare
9. There should be stringent regulation on the introduction of exotic plant and animal species in the wild.	2	10 years	Departments of Forests, Agriculture, Soil, Horticulture, Fisheries, AH & Vety and Sericulture, Village Councils	Forest Department
10. Tissue culture and seed banks to maintain germplasm must be actively	2	10	Departments of Forests, Agriculture, and	Forest Department

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Action	Priority	Time frame	Implementing Agencies	Coordinating Agency
taken up by the concerned line departments. Biotechnology of wild economic plants be pursued for future need base commercial access.			Horticulture, SCSTE, BSI, ICAR, NEBRC and NEHU	
11. State and Central departments, Armed Forces, Construction Companies, Mining and Quarrying, Industries as well as individuals should undertake Biodiversity Conservation programs as part of social duties. A part of their budget should be earmarked for this activity.	1	3 years	CPWD, SPWD, PHE, MSEB, MNCs, Police, Army, CRPF and Individuals	Forest Department
12. Smaller but more gene sanctuaries especially of threatened plant species be established to avoid managerial problems. In this process involvement of the local communities is a must.	1	5 years	Department of Forest, Agriculture, Horticulture, Soil, GHADCs and Village Councils	Forest Department
13. To identify more ecologically sensitive areas and to protect them for long term scientific baseline studies.	2	5 years	Department of Forest, Agriculture, Horticulture, Soil, Animal Husbandry, Fisheries, GHADCs, NGOs and Village Councils	Forest Department
14. A chain of Botanical gardens be established at different altitudes to conserve and multiply the germplasm of rare and endangered plant species.	1	5	Department of Forest, Agriculture, Horticulture GHADCs, NGOs and Village Councils	Forest Department
15. Sacred groves which serve as germplasm/gene banks of several threatened species should be properly protected and revived. Necessary support, financial or physical be provided to the local communities so as to encourage these traditional conservation practices.	1	4 years	GHADCs, Forest Deptt., NGOs, Local and Traditional Administration	GHADCs
16. Network of protected areas	2	5	Forest and	Forest

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Action	Priority	Time frame	Implementing Agencies	Coordinating Agency
covering different bio-geographical and eco-climatic zones may further be established and the existing areas be given proper protection, by providing adequate funds to agencies undertaking such activities		years	Revenue Departments, GHADCs	Department
17. Encouragement in modern agricultural technology be given to the people to grow cash crops like tea, coffee, black pepper, rubber, pine apples, orange, cashew nuts, betel nuts medicinal plants, nitrogen fixing plants, dye yielding plants, mushrooms, bamboos , canes and aromatic and oil yielding plants and efforts to boost piggery, poultry, sericulture and aquaculture wherever feasible and necessary support for storage, processing and marketing to combat the pressure of <i>jhum</i> cultivation.	1	5 years	Department of Forests, Soil, Horticulture, Agriculture, C&RD, Fisheries, Sericulture, GHADCs, NGOs and Village Councils	Agriculture Department
18. Before any project is to be launched an Environmental Impact Assessment (EIA) should be prepared with remarks from various related disciplines followed by <i>Environmental Auditing</i> (EA). EIA should not only be a prerequisite for industries and dams to start, but also must be reported periodically.	1	5 years	Pollution Control Board, SBTF, Forest Department	SPCB
19. Proper survey and documentation of the Biodiversity of the district is a must, and the status of individual wild species be carried out.	1	5 years	SBTF, Forest, Agriculture, Horticulture, Industries, KVIC, Village Councils	SBTF
20. Threatened Plants: Special attention may be paid towards protection of ornamental plants like orchids and other groups of plants which are of economic	1	5 years	Forest, Agriculture, Horticulture, Soil Conservation, BSI	Forest Department

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Action	Priority	Time frame	Implementing Agencies	Coordinating Agency
<i>importance and are threatened, some of which may be multiplied vegetatively or by tissue culture.</i>				
21. Use of Bio-fertilizers, bone meal, organic fertilizers and vermicompost should be encouraged.	1	3 years	Department of Agriculture, Forest, Horticulture and NGOs,	Agriculture Department
22. Charcoal processing and sale should be controlled and regulated.	1	2 years	Forest department and GHADCs, Village Councils	GHADCs
23. State Government should integrate Biodiversity Conservation as one of its priority.	1	1 year	State Government	Planning Department
24. The various conservation and development programs conducted by different government agencies should be with the agreement of the local communities so that maximum participation can be ensured.	1	2 years	Forest, Agriculture, Horticulture, C&RD, PWD, Tourism, Education, , AH&Vety, GHADCs, Village Councils,	PID
25. Mining and quarrying activities in catchment areas should be banned to protect the water resources for the community.	1	3 years	Mining, Horticulture, Forest, GHADCs, Village Councils	Traditional Heads
26. Non conventional sources of energy to be encouraged in order to reduce pressure on forests for fuelwood and charcoal.	1	5 years	MSEB, Planning Department MNCES, SCSTE	MNCES
27. Use of fuelwood for road metalling blacktopping and lime processing should be regulated.	1	5 years	PWD, Forest Department, GHADCs	PWD
28. Launching of any indigenous product (s) in the market in any form should be certified that it is not from the wild but domesticated. The Certificate of Origin should be invoke	1	5 years	Forest, Agriculture, Horticulture MECOFED	Forest Department
29. Fruit canning and processing units be set up in Tura and Chibenang for orange, guava, pine apple, lemon,	1	2 years	Agriculture, Horticulture	MECOFED

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Action	Priority	Time frame	Implementing Agencies	Coordinating Agency
jackfruit, etc				
30. Establishment of handloom, handicraft, weaving centres for young women	1	3 years	KVIC, Sericulture	KVIC
31. Public hearings and awareness programs in <i>jhum</i> villages to continue	1	2 years	NGOs	Local administration and NGOs

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