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Environmental problems and management in RI-BHOI District, Meghalaya

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ABSTRACT

Ri- Bhoi District of Meghalaya has a major important for the entire surroundings and its natural dijaster. So, it has become a researching factor because it faces lots of environmental problems for different types of natural structures and natural calamities of this district. It has now made a problematic matter for managing the whole district to the government bodies and to other statuary bodies of it. The environment of this particular district carries lots features and has needed for its development and managing the entire problems.

Development of infrastructure has not yet picked up for the variety of reasons in the different types of environmental problems and it management. Because of proper solution different types environmental problems constitute deforestation, fragmentation of forests, soil degradation, biodiversity loss and contamination and silting of water bodies. What are the main causes of these types of problems of these areas founded from environmental problems?

This paper conveys the suitability and application of different types of environmental problem in the development of entire district's environmental problems and it management which will help the planners and administrators to identify the problems associated with environmental problems solution activities, to locate and to providing appropriate facilities, monitoring and maintenance management of the assets created in the whole district.

Study has been carried out for Ri- Bhoi district of Meghalaya which covers an area of 2448sq. The region is still poor in saluting the different types of environmental problems and it management.

1. Introduction

Among the all districts of Meghalaya, Ri-Bhoi district is the most important because its natural construction is far difference from others. So, lots of time it captures the different types of problems for living and staying within the entire district. Sometimes, it becomes more distressful for the people of this district and most of time; the connectivity of these surrounding areas breaks down completely. Though its construction is made with the hilly regions and intermountain valleys and rocky lands of this localities has made a distinct zones and captures lots of moderate environment for living and visiting the attractive places. Though the natural beauties, suitable weather and modernized facilities have made this entire district perfect for living, but; sometimes these features are broken down for lots of environmental and management problems of the dutiful authorities and government also. The connectivity of this entire area also makes lots of problems during the natural and environmental problems. All the parts of the whole district cover by roads, rivers, valleys, hills, rocky lands and artificial constructions etc. Most of the places of this district are connected with other places and also others town and villages of other states makes for these types of environmental and managing problems for lots of different reasons .For the good characteristic of the entire district has become a demandable matter for managing the areas according to their own opinion and according their own types of area constructions and uses of different types of private bodies and government also. So, it has become nowadays a problematic issues for the district, Ri- Bhoi of Meghalaya in India.

Nowadays, India being a developing nation, these types of environmental problems and its management have made as a barrier for having this. Situation in North Eastern region is even worse being in the most remote corner of the country and due to its geographical location. There is a wide difference in the development of land use and system between hilly terrain like North Eastern region and other plain areas of country. The absence of proper solutions of different environmental problems and its management of this district because of geographical conditions and other reasons leads to the stagnation of socio-economic condition of the entire areas, Because, these types of problems brings the quality of life in a settlement very much depends on the level of availability, accessibility and quality of infrastructure for living and staying within the entire district. Planning should promote the objective like accessibility and connectivity to most of the places in the region based on environmental problems and its management.

Places in the hilly region to be surveyed or investigated for promoting transitional changes in socio-economic status of the people. For this reason, the present scenario in the states of North region warrants a serious thought on planning proper solution of these types of problems and its management in a scientific way.

The infrastructure of environmental problem solution project for Ri- Bhoi district of Meghalaya has been taken up with the objective creating up-to-date digital database of different sources of problem solution connectivity , accessibility along with various public utility services which can be enable

efficiency in monitoring , management , planning and subsequent development of the environmental problem solving network in the district.

2. Objectives of the study

The total environment and surrounding areas of the district, Ri- Bhoi has made a demandable up gradation due to fulfill of different types of environmental problems and its proper management when any comes within this district. Different types of changes have become needful for the better solution, prompt action and rescue of any environmental problems of this district. Research works of this particular topic have made different types of needful objectives. These objective is as following as-

Preparation of different types of sources for solving the environmental problems and its management which occur in this entire district

3. Methodology

First of all the researcher has tried to find out all the types of problems which generally occurs due to the environmental problem and managing problems those arises for the particular entire district of Meghalaya. After that other causes or related problem of that appropriate topics. The researcher has sincerely studied the all related information about the particular topics whatever have provided from the government and non-government sides. After that the researcher has the visited the mostly entire district where generally problem arises. He has taken the helps of all the official persons of government and non- government whatever he has been needed like document types related the different types governmental and non-governmental orders whatever had issued to take the environment problem and its management. The researcher has observed that the entire district has made from the hilly regions, different types valleys with different types of rocks. He has also seen that the hills and valleys are constructed with deep, narrow intermountain, steep slopes and deep valleys and full of different types of rivers with different features.

The researcher has used different types of methods like observation methods, field survey, use of different types spinal and non spinal data, network analysis, information analysis, finding out of different types of closest facilities etc. for the particular research work. He has also used different types of infrastructural information from different needful sources.

4. Hypothesis

The researcher has started his journey with the Statistical hypothesis and logical hypothesis for collecting the data about the particular tropic and has studied the needful information about the topic. Because. it has become necessary to him for proper information and data collection which also have helped to complete the analytical topic about the Ri-Bhoi district of Meghalaya. The researcher mainly has used here logical hypothesis most of times.

5. Result and discussion

Ri-Bhoi district is a hilly region of Meghalaya with intermountain valleys for the Geomorphologic features of the entire areas. The district comprises of the denudational high hills in the parts of the western and northern region of the state with deep, narrow intermountain valleys spreaded with or without colluvium. Based on the litho logically, the hills comprise Archaean Gneissic complex rocks are made mainly highly deformed, fractured and fissured in nature. These dissected plateau rocks are formed with steep slopes and deep, narrow valleys exposed in the southwestern part of the district. Granite rocks are constructed denudation on high hills with deep valleys which exists comprise intrusive in the central and eastern parts. The denudation type low hills are found in the southeastern part to bring about with valleys and comprise granite with fracture zones. In the southern part of the district of Ri- Bhoi, large number of narrow intermountain valleys are formed which are good rechargeable areas and have highly productive shallow aquifer zone. Deeply dissected plateau comprising the Precambrian Shillong Group of quartzites which are deeply dissected plateau comprising and phyllites happens as highly undulating terrain having more than 20 m deep valleys in the area of Ri- Bhoi district. A trend in NE-SW direction makes moderate for quartzites to steeply dipping rocks of the district. They are entered uninvited by basic and ultramafic rocks which are happened as linear or curvilinear ridges. The total constructed drainage system is operated with topographically. The researcher has observed that the pattern of drainage system has divided into different types of categories like annular, trellis, sub-dendritic types, which also indicate the structural control. He has also seen the presence of different types of important rivers like Umtrew, Umsiang, Umran and Umiam rivers which covers the entire district. The major part of the district occupies with different types rocks like Gneissic Complex, comprising quartzo-feldspathic gneiss with enclaves of granites, amphibolites, schists etc. In the south-eastern part of the district, sedimentary deposits are laid down for Shillong group of rocks consisting of quartzite & phyllites deposits during Pre-Cambrian times and also exposes after having been metamorphosed for over time. Khasi green stones are entered into epidiorite rocks. For these reason reasons of formation, these metabasic rocks occur mostly as sills being concordant. A large area in the central and eastern part of the district occupies Grainite Plutons as porphyritic coarse granite, pegmatite, aplite / quartz vein traversed by epidiorite, dolerite and basalt dykes and are also encountered in the sub-surface of the area. In the extreme northern part of the district bordering Assam. The Quaternary fluvial sediments occur the forming part of Brahmaputra valley, with a thickness ranging between 3 to 20 metres.

Generalised geological succession of the area is given in

Table : General Geological Succession

Geological Age	Group	Formation	Rock Type
Quaternary			Undifferentiated fluvial sediments

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ Unconformity ~~~~~~~~~~~~~~~~~~~~~~~~~~
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Neo-Proterozoic – Lower Palaeozoic	Nongpoh Granite	Granite Plutons	Porphyritic coarse granite, pegmatite, aplite/quartz vein etc.
Intrusive Contact			
Proterozoic (Undiff)	Khasi Basic-Ultrabasic intrusives		Epidiorite, dolerite, Amphibolite and pyroxenite dykes and sills
Palaeo-Mesoproterozoic	Shillong Group	Upper Division	Mainly Quartzites intercalated with phyllites.
		Lower Division	Mainly schists with Calc Silicate rocks,carbonaceous phyllite and thin quartzite layers.
~~ Unconformity (Shared conglomerate) ~~~~~~~~~~~~~~~~~~			
Archaean(?)-Proterozoic (Undifferentiated)	Gneissic Complex (Basement Complex)		Mainly quartzofeldspathic gneiss with enclaves of granites,amphibolites, schists etc.

Without the total formation of the hilly regions and valleys of Ri-Bhoi district of Meghalaya, there are present lots of environmental problems and its management which is being an issue of research factor. Because of, it breaks the entire normal system of the nature and its controlling power. The researcher has observed the consideration deterioration in the quality of environment of Meghalaya. He has seen that life support system namely air, land, water, vegetation etc all have come in the consideration f strain. The major environmental problems result from population pressure, conversion of forest land into agriculture fields, deforestation, urbanization, mining and industrialization. The has observer the previous prediction about this matter as the increasing anthropogenic stresses of various kinds likely to further aggravate the environment in the future.

The researcher has surveyed as the causes of different types of environmental problem of the entire district, He has seen that biodiversity loss is increasing for the habitat destruction, deforestation, shifting cultivation, over- extraction, fragmentation and the changes of lands in the district. Deforestation is also increasing due to shifting cultivation, over-extraction, land use changes, change in ownership in pattern, loosening of the control of traditional institutions etc. But he has seen that shifting cultivation is decreasing for the low output ratio, availability of other alternate incomes due to the increasing of commercial activities, migration of ruler population to urban centre. The researcher has observed that no regulation of private ownership of land and easy accessibility to international market are increasing the coalmining of the district. In the eyes of him, increasing of population and searching for better job opportunities and better quality of life are made as cause of increasing of urbanization.

The researcher has also investigated that water scarcity and water pollution are also increasing which can be made major problem of the entire district. He has seen ,water scarcity is increasing for the increasing of population, destruction of catchment areas of water bodies , poor water supply infrastructure, management and system. Water pollution is increasing due to coal mining and domestic waste disposal. The researcher has indicated as the causes of these environmental problems of the entire district which can bring different types changes in future like species richness, population size of endemics, threatened category species, forest cover yield, species composition, forest floor and soil characteristics, area under shifting cultivation, more area under mining, more population in the water bodies, increase inurban population, difficulty in getting water for domestic use and the polluted the water bodies.

The researcher has told that some policies would be taken for the solution of the environmental problems which are arises in the Ri- Bhoi district like

- Identifying areas and extent of government intervention for developing an effective forest policy.
- Bringing of a new one instead of removing the irrigation in the existing rules and different act.
- Building of different capacities in different sectors.
- Controlling over the population growth of the entire district.
- Developing of new alternatives instead of shifting cultivation.
- Need of alternative livelihood strategies.
- Monitoring the areas under shifting cultivation.

Above all the policies have been suggested for solving of shifting cultivation. The researcher has observed that policies like protecting the existing bio-diversity rich areas should be formulated, adequate funding for conservation, capacity building program, more areas of irrespective of ownership, research support for conservation of fragile ecosystem and threatened category of species, regeneration efforts for the degraded areas and restoration of biodiversity-rich landscape and studies on keystones species and their conservation etc. are very important for solving of biodiversity problems in this district. Other policies like controlling of both the rural and urban areas, checking rural-urban migration by providing better livelihood option and quality of life , and creating new employment opportunities in rural areas, reducing overcrowding of urban areas , maintaining of urban environment, adopting measures to recycle the wastes and cheching of vehicular growth, and sources of water and air pollution in urban areas should be

taken the development of environmental problems. The researcher has suggested that to regulate mining to introduce safeguards, the adaptation of scientific mining and compliance to a well design environmental management plan, diversion of forest lands to non forest uses, need of education of the mining owner, use of appropriate technology for rehabilitation of mine affected areas etc. policies should be taken for solving the mining problems. According to the researcher, a water management plan, implementation for the conservation and optimum use of water resources, a water uses policy, user pay concept, encouragement of considering the effectiveness of the traditional institutions, employment of innovative and appropriate technologies for water conservation and harvesting ,awareness raising programme ,increase of underutilized water sources for harvesting ,` the existing water supply system should be taken for the salvation of water problems of this district. According to the researcher, discharge of household water , industrial and hospitality sewage directly to the streams and rivers, increase of non- point source of water, strict enforce of Act and Regulation, arrangement of quality source water should be done for the controlling of water pollution

The researcher has observed that the Catholic Church of Mawbri parish in Meghalaya's Ri Bhoi district has went after the Khasi way to conserve the dwindling forest covet by putting in place a sacred grove or law kyntang today. He has also seen that some person have started to cover nearly four acres at Sohliya village under Raid Iapngar, which is near about 55km from here and the parish authorities acquired the plot of land to develop it into a sacred grove. In the Northeast, the leadership by the Catholic Church is not a first time for the state possibly also in the rest of the country. For a long time, it has been seen that traditional village institutions conduct several sacred groves in Meghalaya. The researcher has thought that it would be best to lead by example when Instead of just preaching about the need to conserve the environment. For this reason, the parish authorities had bought the plot to develop it into a sacred grove. Among the parishes of Khasi hills, Mawbri parish is one several parishe which falls under the Shillong archdiocese. The researcher has also said the church authorities perceived that the finest way of conservation that deteriorating forests was to adopt the Khasi way of environment conservation — by developing a sacred grove and it is an offence to cut trees in sacred groves except for cremation and religious purposes. The most famous sacred grove of the state, Meghalaya is positioned at Mawphlang, around 25km from here, in East Khasi Hills district. Lyngdoh of Hima Mawphlang covers the Mawphlang sacred groves. The researcher has said since Mawbri parish had shown the way to preserve forests, church authorities would now contemplated the idea to develop such sacred groves in other parishes as well, especially those sited in the rural areas. He has also spoken as"We may adopt a similar kind of an initiative in other parts of the archdiocese, especially in the rural parishes as we do not have enough space in the urban centres. According to him, Veteran Salesian priest Fr Sylvanus Sngi Lyngdoh contributed the gathering at Sohliya village in prayer and accomplished rituals while declaring the four-acre plot as a sacred grove.

References

1. https://www.telegraphindia.com/1130717/jsp/northeast/story_17124444.jsp

