

Is Ecopreneurship A Panacea for The Mizo Society- An Analysis

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ABSTRACT

Ecopreneurial activities have an overall positive impact on nature and it moves towards a more sustainable future. **Ecopreneurship** is a term coined to represent the process of principles of entrepreneurship being applied to create businesses that solve environmental problems or operate sustainably. Every society has their own share of societal problems. Some problems are resultant of some deep rooted cultural practices and removing it is extremely difficult. Slashcultivation in Mizoram is one such societal practice that contributes to the environmental degradation. The paper argues that introduction of Ecopreneurship may ease the pressure as it can improve the livelihood of the people, eradicate poverty and stop the degradation of land. This article which is based on primary as well as secondary data and it tries to analyse the importance of Ecopreneurship for the Mizo society.

KEYWORDS: Ecopreneur, Sustainable Development, Slash Cultivation, Mizo Society.

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I. INTRODUCTION:

Ecopreneurship is a term getting prominence in the 1990's, to represent the process applying principles of entrepreneurship to create businesses that solve environmental problems or operate sustainably. The concept of entrepreneurship is ever evolving, the concept can be traced back to the early 16th century, whereby it meant for those who were engaged in military expeditions, in 17th century it was extended to cover civil engineering activities, in 18th century entrepreneurs are distinguished from the capital provider (venture capitalist), in the 19th and 20th century it is closely related with economic perspective, in present day context we are using this term as a mantra for developmental process in most of the society. Enterprising behaviour can be found in all societies and in all types of economic circumstances. For the development of society, we need to use the transformation approach i.e., old system to new system of thinking & working that should be a beneficial system, for the person concern and the society as a whole for eradication of environmental problems.

It is a well-known fact that to be a successful entrepreneur one needs to be creative, have the opportunity and be able to creatively use resources available. With the increased awareness of environmental issues, the idea of green entrepreneurs or the ecopreneurs emerge in the scene in the last one/ two decades (Pastakin 1998), and they are looking for an enterprise which is sustainable cause less harm to the environment. Ecopreneurs are basically social entrepreneurs whose entrepreneurial motive is not only profit making but also has a social concern manifested through creative thinking and innovation. They definitely have a thought on the future aspects of development of the society as a whole and environment in particular Ecopreneurs try to address various issues and problems of the society, community, environment and many more in a sustainable way. To respond to the various environmental issues and the present day societal demands the responsibility of an entrepreneur

also increases in many ways like producing new products, improving the work system, new methods of marketing and environmental models of business. Entrepreneurs are working in sustainable ways of life and adopted a futuristic vision of a better and sustainable environment friendly society.

Mizoram is one of the hilly states in the North East India with an area of 21087 square km. This State shares International borders with two countries, Myanmar, in the east and in the south, Bangladesh in the west. According to 2011 census report of India, the population of the state is 10,91,014 which records an increase of 22.78 percent from the last decade. Out of this population 5,52,339 are male and 3,38,675 are female. The literacy rate of the state is 91.58% (Male 93.72% and female 80.4%) which is above the national average of 74.04%.

More than the half of the population is dependent on agriculture and allied sectors.

As is done in almost all the tribal societies of North East India, the mode of agricultural practice is mainly the slash and burn cultivation which is an age long practice deeply rooted in the cultural mindset of the people. As

per 2011 Census, out of the total population of Mizoram 55.76% of the total workers are engaged in agricultural activities. More than 60% of the population depends upon agricultural and allied sector. About 32% of the cultivated area is under Jhum cultivation or slash cultivation. According to many studies, Mizoram suffered from environmental degradation and climate change¹ (Sati V.P 2019). This type of agricultural activity has directly or indirectly affected the environment. A study conducted by the Department of Geography and Resource Management, School of Earth Sciences, Mizoram (2019) reveals that, of 21,000 square Km spread in the state only 5.5% is arable compared to the 44,947 hectare that were under jhum cultivation in 2007, of course there is a switching to the plantation of oil palms and sugarcane but this might not be equivalent to the land left abandoned, the study also found a drastic reduction in the fallow period² and the reduction in the crop yield³. All these factors have affected the Jhuming practice in the state and calls for a new venture. It is felt that in order to ease the pressure on environment due to this traditional method of cultivation introduction of modern concept of agricultural practices is needed. Ecopreneurship is one such thing that will be useful in this whole endeavor. The idea of Ecopreneur is very new but this is very important for sustainable development of the society. No society can exist without entrepreneurial activities and society depends on entrepreneurship.

Objectives of the study:

The paper has the following objectives:

1. To analyse the problem of Jhum cultivation in Lawngtali district of Mizoram.
2. To understand the role of ecopreneur in sustainable development.
3. Suggest measures to curb the problems of jhum cultivation.

II. METHODOLOGY:

The data for the paper is based on primary as well as secondary data. For primary data questionnaire method is adopted and for secondary data available literature in books, journals, statistical handbook and other forms of secondary data web page etc. were used.

III. REVIEW OF LITERATURE:

The living beings are depending upon the environment but due to many factors we are directly or indirectly, knowingly or unknowingly, willingly or unwillingly destroyed the environment in some way or other which in turn increases the social problems. In order to address this issue, the service of Ecopreneur(ship) comes handy for solving the environmental related problems as well as many social problems.

From 1990 the concept of ecopreneur began, Blue (1990), Bennet (1991), Berle (1991), Anderson and -- (1997), Isaak (1998), Keogh and Polensky (1998), Adeoti (2000), Larson (2000) and Kyro (2001), Kuratko and Hodgetts (2002), Kao and Kao (2002) etc. Many European countries, South Asian countries, African countries applied the concept of Ecopreneur or environmental entrepreneur or green entrepreneur for solving their social problems as well as for sustainable development. Republic of Korea enacted the social enterprise promotion Act in 2007 and the basic law on cooperatives in 2012, in 2015, Thailand approved Social Enterprise promotion Act in 2013, Chile developed its green growth strategy. Out of 28 members State in European Union, 20 have a national definition of social enterprises. In India, 'Make in India' policy 2014 and 'National Policy for Skill Developmental Entrepreneurship' 2015 are amended. The role of social entrepreneurs and innovation has also been emphasized in the Government's twelve 5th year plan (2012-2017). In Mizoram very few research works have been done relating to Ecopreneur ship.

Ecopreneur and environmental problem in Mizoram:

Most of the countries have environmental problems relating with land, water, air, climatic condition, vegetation etc. The percentages of these problems differ from place to place and country to country. A survey conducted by the scientists of Indian Institute of Technology, Guwahati and Indian Institute of Technology, Mandi in collaboration with Indian Institute of Science Bangalore, under a common framework for monitoring climate change and vulnerability in all the states in the Himalayan Region—Assam, Manipur, Meghalaya, Mizoram, Nagaland, Arunachal Pradesh, Sikkim, Himachal Pradesh, Jammu and Kashmir and Uttarakhand and hilly districts of West

¹Of 21,000 square Km spread of the state, only 5.5% of it is arable compared to the 44,947 hectare that was under Jhum cultivation, less than half of the area is now used in Jhum cultivation, the rainfall has reduced 1.4% on an average and the temperature has risen by 0.4 degree Celsius.

² The fallow period in between Jhum cycles has been thinned down from 20-25 years to 3-5 years, the main reasons being reduced rainfall and fertility of the soil.

³ In the last 17 years (2000-17) paddy production is gone down by 2.1%, ginger by 15.9% and chili by 5.2%

Bengal found that among these states Assam and Mizoram are the most climatically vulnerable states among the 12 Indian Himalayan region states with the vulnerability index of 0.72 and 0.71 respectively followed by Jammu and Kashmir at an index of 0.62 and Manipur at 0.59. This is because of many factors like deforestation, large number of marginal farmers, least number of irrigated areas and low per capita income, lack of alternative source of income and high rate of poverty etc. The newly developed index is said to be based on socio-economic factor, demographic and health status, sensitivity of agricultural production, forest dependent livelihoods and access to information, services and infrastructure. In addition to this, according to a recent report by Skynetweather.com India recorded only 99mm of rainfall against the normal average of 13.15mm for the pre-monsoon season, March, April and May while the eight states in North East witnessed isolated rains and thunderstorm during the period, Mizoram has found a place in the large deficient category states of India.

Ideally in the pre-monsoon season, Mizoram is supposed to receive about 240mm of rainfall, unfortunately, the state received only 71.5mm with a deficit rainfall of about 70% in 2019⁴. This is a clear example of the impacts of the human cation to the environment and the society in turn is experiencing a deficit in crop and had to bear the heat which is quite unnatural in this region.

In this situation, the state needs Ecopreneur. The idea of entrepreneurship is very new but this is very important for sustainable development of the society. Everything around us in some way has its roots in entrepreneurship, products, systems and ideas are all part of an entrepreneurial ecosystem. No society can exist without entrepreneurship. The entrepreneurial activities have an overall positive impact on the natural environment and they move towards a more sustainable future.

Entrepreneurship is not only important for market-based economy but also it plays on green business practices in a sustainable way. According to World Commission on Environment and Development (WCED 1987:43) an independent body established by the United Nations, Sustainable development is defined as development that "Meet the needs of the present without compromising the ability of future generations to meet their own needs." Sustainable entrepreneurship is defined as 'the process of discovering, evaluating and exploiting economic opportunities that are present in market failures which distract from sustainability, including those that are environmentally relevant' (Bean and McMullan 2007:58).

According to Munoz (2013), Sustainable entrepreneurship focused on pursuing business opportunities to bring into the development of society, the economy and the environment and consequently the enhancement and wellbeing of future generation. In short, the different types of positive impact of Ecopreneurship can be divided into four different categories: 'Social justice, environmental protection, economic prosperity and intergenerational equity' (Munoz). Now in Mizoram, all these four factors are very important for well protected environment as well as for the development of the society as a whole.

Ecopreneur and Sustainable Development:

Sustainable development is a broad concept that balances the need for economic growth with environmental protection and social equity. It is a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development and institutional change are all in harmony and enhances both current and future potential to meet human needs and aspiration. Sometimes this concept combines economic, social justice, environmental sciences and management, business management policies and law. Sustainable development indicated developments that meet the needs of the present without compromising the ability of future generations to meet their own needs. It helps in sustaining the ability of natural system to provide the natural resources and ecosystem service upon which the economy and society depends. Sustainability creates and maintains the conditions under which humans and nature can exist in productive harmony that permits in fulfilling the social, economic and other requirements of the present and future generations. Everything that we need for our survival and wellbeing depends, either directly or indirectly on our environment. We need Ecopreneur for sustainability, conservation of environment and solving many other social problems. Among the various social problems in Mizoram slash cultivation is one of the problems related to environment degradation, the paper is an attempt to analyse this situation.

Slashcultivation/Jhumcultivation:

Slashcultivation (Jhum) is one of the oldest systems of agriculture, it has been under attack in recent times. In spite of its pivotal role in the culture and livelihood of the tribal societies, shifting cultivation is often perceived as a threat to the forest ecological system and it has been often associated with large scale of deforestation. There are two views on shifting cultivation which has been categorized in ecological implications and socio-economic implications that advocate about the impact of slashcultivation. The

⁴ This is the second driest pre-monsoon season in the last 65 years, the year is equal to 2009, Skynetweather.com (2019)

adverse effects of slash cultivation on the environment are well established scientific facts. Food and Agricultural Organisation reveals that deforestation caused by shifting cultivation is often viewed as one of the most important environmental problems of Southeast Asia. In India also this agricultural system has remained as one of the unresolved issues in planning for tribal development. About 10 million hectares of tribal land stretched across 16 states is estimated to be under shifting cultivation in India. It is mostly practiced in Bihar, Orissa, Madhya Pradesh, Chhattisgarh, Andhra Pradesh, Karnataka, and the hilly region of the North-Eastern states.

According to the Government of India's report of 1995, slash cultivation is a major cause of land degradation that has constantly declined the agricultural productivity and thus income of the farmers. In Mizoram 1.5% of the total area is being affected by shifting cultivation, annually (Maithani 2005) that cost about Rs 1 billion forest resource has been lost (Lalkhana 1985). Biologists, foresters and conservationists have noticed the effects of shifting cultivation on biodiversity in the tropical forest (Raman, 2000). Many scholars believed that shifting cultivation effects are very destructive (Rao & Hajra, 1986, Lal & Prajapari, 1990; Tiwari 1991, Dwivedi 1993). In Mizoram, the studies on ecological impact of shifting cultivation have also been carried out by Tawnenga (1990), Tawnenga and Tripathi (1996) and Tawnenga et al. (1997). Clearing forest for shifting cultivation can contribute to climate change, biodiversity loss, reduced timber supply, flooding, siltation, soil degradation and change of forest vegetation from primary to secondary and eventually to grassland (Holden, 2001).

Slash cultivation in Mizoram:

Shifting or Jhum or Slash cultivation is known as 'Tlangram loneih' in Mizoram. This is one of the major agricultural practices followed from early times. Mizoram is one of the states that have the problem of climate change due to many factors. From the expert opinion slash cultivation is one of the important factors for climate change as well as for environmental degradation. It has many impacts in the society as a whole. So, from time to time the central government and the state government initiate many action programmes substituting this activity but the practice is continuing in some way or other in the state.

Under Jhum cultivation system, farmers cultivate their crops in a particular land for one year and then next year, they move to a new Jhum land. In the Jhum lands farmers cultivate crops either for family consumption or selling purposes. Normally there are two types of land holding system which is followed by the shifting cultivators. Firstly, permanent land which is owned by the household which has been inherited by the family. Secondly, Jhum land or temporary land which is cultivated for a year that is allotted by the village Council for Jhumming. Some of the household owned both permanent and temporary land while there are also lender household managing only allotted Jhum land for cultivation.

Despite all the shortcomings, this type of cultivation cannot be stopped completely as the lifestyle and cultural ethos of the tribal people is closely governed by Jhumming operations. Slash cultivation is not just an occupation but also a way of life of the Mizos. Their needs, food habits, folklores, festivals and the overall cultural ethos show that this practice is deeply rooted in the social life of the farmers. Shifting cultivation occupies an integral part in the economy of the rural people in Mizoram. It is not only the major source of livelihood it is also a way of life.

In traditional agriculture like slash cultivation which is mostly practiced in Mizoram, the employment of modern technology is limited by the method itself, in any case, the level of output is supposed to be related to the size of holding and the level of employment. On the other hand, this type of farming system is not only destructive for the environment, but also highly unprofitable and labor consuming as one can barely harvest a year's supply of crops for one's use. As a result of this and the growing population, Mizoram's land has slowly lost their fertility and wooded areas over the decades are losing to an alarming rate. This has resulted in drying up of springs and rivers and depletion of underground water reserves and loss of precious fertile topsoil. It is estimated that about 16.84% metric ton of soil has been lost every year. Therefore, the fertility of soil has been reduced. This has resulted in low production and per hectare yields of cereal crops from the shifting cultivation.

Study site- The Lawngtlai District:

Lawngtlai is the district headquarters of Lawngtlai district in the State of Mizoram. It is also the headquarters of Lai Autonomous District Council, one of the three autonomous district councils in Mizoram. The distance between Lawngtlai and Aizawl through NW 54 is 296 km and is connected with regular bus and jeep service. Lawngtlai is also going to be the Nodal point in India for the Kaladan Multi-Modal Transit Transport project which will link the town with Setpyitpyin (Kaletwa) in Myanmar through a 62 km highway.

According to the 2011 census out of the total population of the state, around 55.75% of the total workers are engaged in agriculture activities. Out of 2,22,853 households in Mizoram, the Jhum

cultivators comprise of 58751 households (26.36%) distributed in the eight districts. Out of eight districts in the state Lawngtlai district is one of the least developed one. In 2011, Lawngtlai district has a population of 117,894 of which male and female were 60,599 and 57,295 respectively and growth of population is 60.14%. The district has an area of 2557 sq km and density of population is 46. Average literacy rate of Lawngtlai in 2011 is 65.88% (males 72.12%, females 57.12%), which has observed a reduced rate of literacy from the previous decade⁵.

The primary data for the study was collected from a village Bualpui Ng. of Lawngtlai district. Bualpui Ng is a village with two sub-villages Bualpui Ng East and Bualpui Ng West. Bualpui Ng E is a village in Sangau Block in Lawngtlai district it is located 28 km towards North from district headquarter Lawngtlai. According to 2011 census the population of Bualpui Ng E is 1207 with 244 households and Bualpui Ng W is 796 with 156 households. The total population in the village is 2003 and has 400 households. Out of these 400 houses, 50 households were picked up randomly for this study.

Table 1
Size of the family

Range of family members	No. of households	No. in Percentage
0 - 5	23	46
5 - 10	24	48
10 - above	3	6
Total	50	100

Source: Primary data

Most of the families in the village have joint family system. Out of a total of 50 households, around 48% of them are having 5 to 10 members in the family and around 46% of them are up to 5 members and 6% of them are having more than 10 members in their family. Labour requirement is always more in Jhum cultivation

Table 2
Availability of Benefit

Availability of benefits	Yes	%	No	%
Govt. and non-govt subsidy	18	36	32	64
Training received for framing	15	30	35	70
Availability of seeds and grains (subsidized/free)	18	36	32	64

Source: Primary data

Regarding the availability of benefits from government and non – government institutions most of the farmers about 64% of them said they don't get any subsidy, regarding the new farming methods only 30% of them have the idea but 70% of them are not attended any kind of training programme for plantation of their crop, 36% of the farmers said they received some seeds and grains but maximum of them i.e., 64% said they don't receive any seeds and grains. Whatever they need buy from the market.

Table- 3
Use of Fertilizer

Types of fertilizer	Yes	%	No	%
Artificial	13	26	37	74
Compost and other Farm manures	27	54	13	26
Both artificial and organic	10	20	-	-

Source: Primary data (some farmer opted more than one options)

The numbers of farmers used fertilizers for their farms i.e., 54% of them said they use compost and other forms of manures, while 26% of them said they use artificial fertilizers and 20% of them said they use both even though their production is very less due to many factors.

Table- 4
Family Income

Range of income from the farm	Number of farmers	Percentage
0- 10,000	45	90

⁵ The literacy rate of Lawngtlai in 2001 was 67.6%.

10,000-20,000	3	6
20,000-30,000	2	4
40,000-50,000	-	-
50,000- above	-	-

Source: Primary data

Regarding the family income 90% of them said their income from the firm is only upto Rs 10,000 per month. 6% of them said they have income between 10,000 to 20,000 and only 4% of them said their income is around 20,000– 30,000 respectively.

Table 5
Willing to adopt sustainable method of Farming

Reasons for the change	Yes	%	No	%
Want to adapt to the new market of farming	48	96	2	4
Want to continue with the traditional method	2	4	48	96

Source: Primary data

Nowadays most of the farmers are eager to introduce newer method in the farming method i.e., 96% of them wanted to use new method of farming for sustainable development but still 4% of them want to continue the same method they have. From the above analysis we know that slash cultivation is not suitable for most of the people but the farmers opined that the options are very limited so they continue the same method of farming.

IV. CONCLUSION AND SUGGESTIONS:

Every society has many problems, for solving and reducing the problems many adventures are identifying the means or device, considering importance of the problem and in order to improve the livelihood of the people, eradicate poverty and stop the degradation of land due to slash cultivation. We need the help of Ecopreneur for helping and addressing all these social problems. Most of the time, Ecopreneur activities have an overall positive impact on the natural enhancement and they move towards a more sustainable future. For sustainable development we require sustainability innovation of all work system and entrepreneurs who can address environmental issues as social goals with best product and processing methods that are successful in the mainstream society, contribute solving environmental problem and creating economic value. (Schaltegger and Wagner). Mizoram need to apply sustainable entrepreneurship model proposed by Lichtenstein (2011) that consists of eight ecological action

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1. Individual aspiration, 2. Network Affiliation, 3. Process optimization, 4. Entrepreneurial innovation, 5. Value chain collaboration, 6. Industry/Sector coordination, 7. System-wide integration and 8. Social transformation.

Individual aspiration or adaptation to new system of methods, technology, thinking, working etc. are necessary. Network affiliation is also necessary for change in new system of work. When they need any information regarding the farming method, training programmes, new policies of the government, marketing facilities etc. Should be readily available. Sometimes social network is an important tool in optimization and in applying the new methods of farming

and displaying in a way that is good and best. Nowadays people are more conscious about health so organic products are more likely in demand. The farmers try to produce good quality products with collaboration with innovative ideas, methods, system etc. Value chain collaboration here needs different agencies like government, NGO's, supporting agencies for consuming the environment as well as sustainable development for all. Achieving sustainable development need different supports from different angles like sectoral support, all the system need to be integrated and social support as a whole for stopping or reducing the degradation of environment and sustainable development as a whole. For achieving these goals, we need the person that is an Ecopreneur.

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