Rapid industrialization, mechanization and scientific inventions have made human life comfortable but at the same time created disastrous environmental problems (Pai, 2000). For years, we have been conquering nature, presently we are beating it to death and unless we change the direction we are heading, we might end up in an abyss of natural adversities. Man, culture and his biophysical surroundings compose a system and they are inseparable (Gokmen, 2008), and to a certain extent the quality of the environment critically depends on the level of human knowledge, attitudes, values, ethics (Mansaray & Abijoye, 1998) and environmental practices. Such a system of network depends on the peaceful coexistence of every unit for survival as the availability of resources in the biosphere has its limits (US Environmental Protection Agency, 1996). Indeed, the global citizens gradually started to understand the problems that are being faced by man in his biophysical environment, and initiated participating in problem solving and shouldering responsibilities (Stapp, 1969). The large-scale concerns towards the environment were being echoed that as “better to be frightened now than killed here after” (Churchill, 1946), due to an inevitable fact that people are assured that by the end, their society will not be defined only by what they create, but by what they refuse to care for. This implies the need of people’s awareness of one’s human role in the universe inclusive of moral and ethical aspects, the aim being contribution to the harmony of the ecosystem and its relationships with our society. Society should be encouraged to value their natural heritage and recognise cultural traditions in relation to nature. Society should be made to recognise cultural practices - cultural identity -
cultural attitudes - and cultural values – in relation to nature as they play considerable roles in setting directions and building common commitments. People in the society needs to recognise that the survival and well being of other species as fundamental natural processes. A common ecosystem model that all systems on earth are interlinked and have to be preserved and maintained should be made conscious to everyone in the neighbourhood. It is widely accepted that the development of such awareness, knowledge, attitude, ethics and practice acquired through environmental movements can help one to lead a desired quality of life in one’s own environment.

1.1 International Movements Concerning Environment

The global environmental movement had no clear beginning, people came together to form local groups since the mid of 19th century. Local groups combined after the Second World War (1939-1945) to become a multi-national movement and today have become a global movement (Santra, 2001). The new environmentalism linked with the roots of several social and cultural revolution relating to human right issues, in which two international conferences met to assess the problems of the global environment and to suggest corrective action between 1968-1972 (Santra, 2001). Later, the UN Conference on Human Environment held in Stockholm in 1972 known as the Stockholm Declaration on Environment and Development highlighted importance of environment and declared 5th June as the World Environment Day every year and this was mainly for creating awareness among people through various activities concerning the environment. The declaration stated that (i) Man has fundamental right to adequate conditions of life in an environment of quality that permits a life of dignity and well being. (ii) Natural resources of the Earth including the air, water, land, flora and fauna must be protected for the benefit of present and
future generations otherwise human community cannot survive. (iii) States shall take all possible steps to prevent pollution of seas. Hence, the first Declaration on Human Environment was adopted, to educate the people on varied environmental issues, which resulted in the formation of United Nations Environmental Programme (UNEP, 1973) has provided leadership and encouraged partnership to care for the environment. The Belgrade Charter (1975) at the United Nations Educational, Scientific, and Cultural Organization Conference in Yugoslavia and provides a widely accepted goal statement for environmental education, stated that the goal of environmental education is to develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations, and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones (UNESCO, 1976). Following Belgrade, Tbilisi Declaration (1977) the world’s first Intergovernmental Conference on Environmental Education was held in Tbilisi, Georgia adopted the Tbilisi Declaration acclaimed the important role of environmental education in preservation and improvement of the world’s environment, as well as sound and balanced development of the world’s communities. The major outcome of the Conference established the objectives of environmental education, i.e, awareness, knowledge, attitudes, skills and perception (UNESCO, 1978). Brundtland Report (1983) identifies concepts of Sustainable Development that the essential needs of the world’s poor, to which overriding priority should be given, and the idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and future needs. The Montreal Protocol (1987) on Substances that Deplete the Ozone Layer was designed to reduce the production and consumption of ozone depleting
substances in order to reduce their abundance in the atmosphere and protect the earth’s fragile ozone layer. Protocol to the American Convention on Human Rights (1988) grant a right to live in healthy environment and approach to basic services. The first United Nations Conference on Environment and Development (UNCED Earth Summit) was held in Rio De Janeiro in 1992. It represented a turning point in the way we look at environment and development. At the Earth Summit, world leaders adopted Agenda 21, a blue print to attain sustainable development. Agenda 21 provides a comprehensive action programme to attain sustainable development and address both environmental and developmental issues in an integrated manner at global, national and local levels. World Conference at Kyoto (1997) highlighted the increasing dangers of the greenhouse effect leading to global climate change, this conference made the mandatory cuts in emissions of greenhouse gases by industrialized countries to save the planet earth from potentially devastating global warming. The European Union, International Union for Conservation and Natural Resources (IUCN), World Trade Organization and various regional groupings like the South Asian Association for Regional Cooperation (SAARC), Association of South East Asian Nations (ASEAN), the Group of 8 countries (G-8) also showed their concern and commitments over environment protection and environmental rights. The Millenium Development Goals (MDGs), made during the UN Millenium Summit on September 2000, stand for solidarity and determination of the world leaders to rid the world of poverty and improve the lot of humanity (Jeyalakshmi et al. 2010). MDG – 7 “ensure environmental sustainability” this plan is realising for achieving the MDGs by 2015 which focuses on promoting a sustainable environment by protecting environmental resources but the effects of environmental degradation and climate change threaten the achievement of threaten the
achievement of the MDG and the world is running out of time. Hence, MDGs is the challenge for the world, national and local as well towards sustainable development.

India, a country with the seventh largest landmass in the world, is land of ancient traditions. With over a billion people and at least 17 major languages, the diversity of India in terms of culture and biological wealth is enormous. In spite of rapidly changing lifestyles, the traditions of living in harmony with nature and of environmentally sound practices underpin the lives of most of the people. It is against this backdrop that the country’s Environmental concerns has been evolved. The Constitution of India explicitly makes environmental conservation a duty. The law courts of the country have been sympathetic to environmental causes.

1.2 National Movements Concerning Environment

Since the early seventies India has taken an active part in global efforts to tackle environmental problems participate in the Stockholm Conference on Human Environment in 1972 but the major breakthrough on environmental issues and concerns in India began to be achieved from 1980s onwards. Environmental protection has been a part of Indian Culture in which, the Department of Environment was established in India in 1980 to ensure a healthy environment for the Country. This later became the Ministry of Environment and Forests in 1985. The Chipko movement started in the early 1970s in Garhwal Himalayas of Uttarakhand a sociological movement that practised the Gandhian methods of satyagraha and non-violence resistance through the act to prevent the cutting down of trees. It was a truly grass-root level movement started from the local problem led to macro level decisions (Mohapatra, 2000) of ecology and environmental protection. In 1978 the Silent Valley project was initiated by the Kerala government to construct a dam and it would submerged the prime rainforests with rare flora and
fauna that is unique to this valley only (Mohapatra et al. 2000). To save the environment the Kerala Sastra Sahitya Parishad and NGO spearheaded a movement to protect the tiny valley along with the ecosystem and bio-diversity. Thus, the movement to save Silent Valley turned to save the ecosystem in many ways. Teak trees were felled to built ship and timber and fuel wood were sent to Mumbai and people embraced the trees and thus in September 1983 Appiko movement was launched. This no-violent movement became popular all over the state and people joined this movement and spread the movement message through slide shows and street plays created mass awareness which convey the message of conservation (Santra, 2001). In the constitution of India the Directive Principles of State Policy on Environmental has been articulated in Article 42 Amendment in 1977. It says that state shall endeavour to protect and improve the environment and to safe-guard the forests and wildlife of country. Likewise, Article 51(A) laid emphasis on protection of environment as one of the fundamental duties of every citizen. Further, the national concern for Environmental Education is reflected in the National Policy on Education (NPE, 1986) document observes that, “There is a paramount need to create a consciousness in the environment. It must permeate all ages and all sections of the society beginning with the child. Environmental consciousness should be there in the form of teachings in schools and colleges”. Besides, the foundational curricular concepts of Environmental Education should be locale specific in connection with the global environmental issues like the ones being narrated below.

### 1.3 Global Warming and Climate Change

Human tendency to exert a negative influence on ecology has resulted into climate change and global warming. With the rapid increase in the greenhouse gases, climate change resulted in the long run and become alarming and irreversible in the
atmosphere (Santra, 2001) threatening the sustainability of environment. Besides greenhouse gases, gases like ozone in the earth is notable for its ability to absorb UV radiation, computer based image processing indicates the fact that the ozone layer depleted zone extends over the entire Antarctica Continent and beyond which the ozone hole develops each year caused a hue and cry about the depletion of ozone layer. Different trace gases in the atmosphere contribute to the depletion of ozone layer but the major gases are carbon dioxide, chlorofluorocarbons, methane and oxides of nitrogen. Nonetheless, environmental pollution like air, land, water, noise, solid waste pollutions leads to global warming and climate change. These pollutions have adverse effect on the environment like acid rain, drought and floods every year is considered as a global phenomena, which maximally attracts the attention of human being for its severe long-term consequences. Population growth, increasing urbanization and industrialization and rising standards of living have all contributed to an increase in amount and variety of waste generated in most countries (Santra, 2001) becomes a threat to the biodiversity.

1.4 Adverse Effect on the Biodiversity

Biodiversity is consider to be one of the most gracious gifts of nature and its conservation is essential for sustainable yields which was rich in variety and colours in its number. Biodiversity, besides its crucial role in preventing ecological degradation has other values for livestock improvement. In the current situation, there is certain project to preserve and conserve the wildlife. Today fauna like amphibians are under a threat and caused ecological concerns for preservation and conservation. Project Tiger launched in 1973 is an ecosystem based conservation support project and Project Elephant was launched in 1992 in order to improve of elephant habitat, which requires support for conservation. In 1999, Olive Ridley
Turtle Conservation Project developed guidelines to safeguard the species and minimize turtle mortality caused by human activities. These projects were initiated to preserve the extinction of the fauna and their varieties in the environment. However, biodiversity loss due to human intervention for various reasons is the prime concerns for species extinction. The loss of species diversity and the reduction in the genetic variety of fauna and flora could seriously affect human welfare (Santra, 2001). In 1997, the Convention on Wetlands designates as nature reserves. Wetlands play many vital functions in the environment like, flood control, binding effect of their vegetation, ground water recharge, maintaining aquatic fertility and physical stability of floodplains and deltas, immobilize and transform a wide range of environmental contaminants and nutrients, preventing nitrates from reaching fresh water, streams, and lakes (Santra, 2001). Wetland loss cause adverse effect on the sustainability of fauna and flora. Therefore, biodiversity protection should be taken up as a part of conservation programme through environmental education towards sustainable development.

1.5 Environmental Education towards Sustainable Development

Ever since man appeared on earth, he has been exploited natural resources to meet his basic requirements, has put tremendous pressure on the shrinking natural resources that degraded the ecology and endanger the biophysical environment in future. Environmental protection, resource conservation and economic growth are important for sustainable development. We are consuming natural resources at a rate much faster than that at which nature can nature can regenerate them, we are polluting the environment than its ability to absorb the pollution, which is unsustainable way of living and it can only lead to an environmental and social catastrophe (Rajagopalan, 2005). The ultimate goal or outcome of environmental
education is the creation of environmentally literate citizens of today’s challenging local and global environmental issues and moving society towards sustainability cannot rest only with “experts” but will require the support and active participation of an informed public in their various roles. Thus, Sustainable Development emphasizes the need for understanding the principles of sustainability and asserts that learning the independence of the environment, the economy, and social systems can help in making the necessary changes towards sustainable utilisation of natural resources and the environment (Agenda 21-1992).

Sustainable Development as defined by the World Commission on Environment and Development in 1987 “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”, where needs can be described as economic, social and political needs and safeguarding the needs of future generations by minimizing the use or waste of non-renewable resources sustainable use of renewable resources (Global Forum, 1994) which signifies the importance of 3Rs (Reduce, Reuse and Recycle). This global initiative has sparked inspirational innovations around the world to accept responsibility for the well-being of future generations and of our planet. Humankind has extensively utilized a variety of technologies improvement and economical advance that caused a variety of threats such as energy shortage, forest destruction, animals and plant extinction, pollution, industrialization and urbanization problems (Scoullus & Malotidi, 2004). The development of human capacity and creativity to participate in determining the future, fostering cultural conditions favouring social and economic change to improve the quality of life and more equitable economic growth while living within the carrying capacity of supporting ecosystems to maintain life identity (Fien, 1993) is essential for sustainable environment.
Education for sustainable development enables people to develop the knowledge, values and skills to participate in decisions about the way to do things individually and collectively, both locally and globally that will improve the quality of life now without damaging planet for the future (The National Curriculum, 1999, Government panel for Sustainable development, 1999). It is widely agreed that education is the most effective means that society possesses for confronting the challenges of the present and future. Education is a motor for change that shapes the world of tomorrow and it is the most effective means in the quest to achieve sustainable development. That is why in December 2002, the United Nations General Assembly, through its Resolution 57/254, declared a Decade of Education for Sustainable Development (2005-2014) was initiated at the World Summit on sustainable development in Johannesburg, where everyone agreed that without education, Sustainable Development would remain nothing more than an interesting idea.

1.6 Environmental Education and Environmental Attitudes

The aims and goals of Environmental Education creates an affirmation of movement towards Sustainable Development as an integral part of one’s life style (Osterwalder, 2009) and as a key to the future of mankind. Reason being enhancement of the environmental knowledge leads to the development of positive attitudes towards the environment (Uzun & Saglam, 2006). Environmental Attitudes is always a pattern of ideas, motives and feeling of concerns for actively participating in protection and conservation of the natural environment. A person’s attitude towards the environment affects their desire to act on the environment (Hungerford, 1990 & Sheppardson, 2007), likewise, individuals who have negative attitudes towards the environment will be insensitive to environmental problems and
may even adopt behaviours that damage the environment (Aydin, 2000; Uzun & Saglam, 2006). A person’s attitude towards his biophysical environment, like his attitude towards his social environment, is connected with his culture, values, ethics and practices, along with his adherences and knowledge, the way he interprets and comprehends environmental matters. Attitudes of environmental concern are rooted in a person’s concept of self and the degree to which an individual perceives him or herself to be an integral part of the natural environment (Schlutz & Zelezny, 2006). Environmental attitude help individuals and social groups acquire social values, strong feelings of concern for the environment and the motivation for actively participating in its protection and improvement one’s cultural environment. A general attitude may not predict a specific behaviour; but a multiple components of an attitude is more likely to predict a class of behaviour (Fishbein and Ajzen, 1975). Attitudes regulated behaviour not only in classroom but also in all other areas of life experiences. Students with strongly positive attitudes permit growth, negative attitudes hinder growth, critical attitudes aid making wise decisions, tolerant attitudes help in adjusting to new situations (Thunder & Colletre, 1968). Furthermore, people’s observance of certain positive or negative attitude directs the adherence constructive or destructive values, thus percolates to the ethical philosophy of one’s life.

1.7 Environmental Education and Environmental Ethics

Man’s enducation and knowledge of his environment, what he does to it and what he feels about it, have all been subject to change during the life of the human species in accordance with his socio-cultural development and continue to vary from one cultural tradition to another. Environmental Ethics is the study of moral phenomenon concerning the human environment relationship (Rosen, 1996) within
the biophysical environment, which addresses the ethical responsibilities of human beings for the natural environment (Botzler, 1993) and concerned for his own environment. Thus, Environmental Ethics deal more specifically with human conduct towards the natural environment and it is the ethical relationship between man, culture and his biophysical surroundings, thus includes law of right and wrong that has to be articulated, systematised, codified and followed by each individual ethical responsible towards the environment. Environmental ethics through environmental education develops as a force into a person from within to make decisions and take action on the different aspects of life towards the environment, concerning itself with humanity’s relationship to the environment, its understanding and responsibility to nature, and its obligations to leave some of nature’s resources to posterity (Pojman, 1994). Environmental Ethics is essential because it helps the students to distinguish between actions that are harmful and those that are beneficial to the environment. Environmental Ethics through Environmental Education should be able to improve ‘good quality of thinking and actions’ of the students in the secondary school level. Environmental ethics is essential because it helps the students to ‘distinguish’ between actions that are ‘harmful’ and those that are ‘beneficial’ to the environment, where teacher’s play a crucial role to develop the all round development of the student at schools. As mentioned earlier, society is composed of a great variety of people with different view points, therefore, now is a right time to promote environmental ethics through environmental education, seminars, group discussion and publications for the students towards a sustainable development (Momin and Shadap, 2011).
1.8 Environmental Education and Environmental Practices

Environmental practices for sustainable future demands knowledge and understanding of our environment, how it works, what we have done to it and what can we do to protect, conserve and preserve it. We must ensure that any development for changes in natural environment has a minimal pessimistic impact as far as possible on the environment. Environmental Sustainability is such journey though not a destination and environmental practices are those sanguine anthropogenic practices based on agriculture, mining, pollution, forest, industrialization, urbanization, and other associated convention. Good environmental practices manifest beneficial environmental performances of the people or community, it entails to self-regulation, demonstration of responsibility and earning of respectability (T. Wilkins 2006). However, environmental education in practice should embrace both nature and man, and deal with the harmonious interaction between the biophysical environment and man himself, his societies and cultures. It regulates behaviour not only in the classroom but also in all other areas of human behaviour concern for the environment and motivation to improve or maintain environmental quality towards sustainable development. However, sustainable development of one’s own environment depends a lot on how man maintains his relationship with nature as well as his biological and physical surrounding with bases on immediate cultural activities.

1.9 Man, nature, culture and his biophysical surroundings

Russian Environmental Policy (Bulletin Towards a Sustainable Russia, #34, 2006) emphasized that an environmental culture inclusive of Environmental Attitudes, Environmental Ethics and Environmental Practices should become part of human culture through series of educational processes of inculcation. Cultures
consolidates all societal sectors on the grounds of the community of interests of the state, society, and business in building capacity for a healthy environment. Culture not only determines human behaviour (Samovar, Porter and Stefeni, 1998) but also guides behaviour and interprets others behaviour (Kim and Gudy Kunst, 1998). Cultures is a capability of people to use environmental knowledge and skills in their practical activity. An individual’s environmental culture includes his/her environmental behaviour. Thus, people who value other species highly will be concerned about environmental conditions that threaten those valued objects (Stern 2000) of their own environment.

Though, nature is capable of providing man with everything that he needs not only for self-sustenance, but also for making his life fully comfortable and shapes the way people perceive the world and how people interact with it. Culture is a very practical and concrete determinant for sustainable development. If the people are to be supportive of and involved in such change at the level of community, household or individual, they will need to be rooted in the cultural specificity of the area or region. Therefore, culture based environmental education is essential in enabling people to use their ethical values to make informed and ethical choices. Man’s attitude towards his biophysical environment is connected with his ethics, outlook and knowledge in which actions and attitudes towards environment are determined by ethics and reflects both in his standard of living and in his biophysical surroundings.

Various countries have different cultural traditions – and many subcultures – that affect the formation of environmental awareness, knowledge, attitudes, ethics, and practices. Environmental Education also enriches Environmental Ethics in some people. Environmental Ethics concerns itself with judgements of approval and
disapproval, judgements as to the rightness or wrongness, goodness or badness, virtue or vice, desirability or wisdom of actions, disposition, ends, objects, or states of affairs (Runes 1983). It deal more specifically with humans interaction and practices with the natural environment with respect to various environmental existencies of the social beings situated in a particular physical environment. The reason being that local environmental forces, conditions and circumstances determines the existence, growth and development of locally available biotic and the abiotic components, their interrelationship, interdependences and co-existence to the corest root.

Today, the environmental degradation is a matter of great concern before mankind. Over the last few decades the delicate ecosystem of our planet is facing the danger of destruction due to the intervention of human beings. In the development race man has ruthlessly consuming natural resources and polluting environment. Rapid damage to environment and depletion of nature’s stock of resources at a faster rate started from the time of industrial revolution. Demand for more and more resources has been ever – increasing and spreading to a large number of countries. Such a continuous process of resource exploitation and consequent environmental degradation has now brought about a situation where nature itself is in danger. Environmental degradation simply means lowering of environmental qualities because of adverse changes brought in by human activities in the basic structure of the components of the environment to such an extent that these adverse changes adversely affect all biological communities in general and human in particular. Thus, in view of the above, the cultural bindings of the population under study are inevitable for conceptualization of the problem identified.
1.10 Culture and Environment in Jaintia Hills District Meghalaya

Meghalaya, a state of North- Eastern region India is blessed with green hills thick forested plains and lively rivers. Famous of its rich ecological heritage of “citrus fruit” and magnificent wildlife, Meghalaya constitutes a unique and fragile ecosystem. In a state known as wettest place in the world lies Jaintia Hills District in the Eastern most corner of Meghalaya covering a geographical area of 3,819 sq km having a population of 392,852 (2011 Census). It is bounded on the North and East by the State of Assam, on the South by Bangladesh and on the West by East Khasi Hills District. The people residing in the central region of Jaintia Hills are called ‘Pnars’ by those living in the Southern and Northern regions called as ‘Wars’ and ‘Bhois’ respectively by the Pnars. Originally agriculture is the main occupation of the Jaintia people and it is being practices in most of the villages till now. The District has rich mineral resources. Considerable qualities of coal deposits are found in the area along with limestone. Within a very short period of time the District became the major coal producing and cement factory area of Meghalaya.

Culture is not determined by climate, geomorphology or vegetation (Hartshorne, 1959) but it is the sum total of ways of living built up by a group of human beings and transmitted from one generation to another (Random House, 1987). Human ecology is intimately connected with people’s relationship with their environment (Hall, 2000), and thus adds to the combination of cultural and biophysical environmental factors that affect human growth and development (La Grange, 1994). The roots of culture lies deeply in nature, nurtured by Mother Earth. Living close to nature Gurdon says, “The people love a day out in the woods, where they thoroughly enjoy themselves”. Jaintia traditions and customs provided for its people a sound understanding of nature to live harmoniously with the environment.
Jaintia culture includes indigenous hand woven traditional costumes that are worn during dances and festivals, and variety of cane, bamboo and woodcrafts. They also have certain beliefs relating to nature, which are still prevalent among them till today. People of the region consider jungles as the sacred grove of forest and they are quite sure to the environmental awareness around them (H.Sungoh, 2013). These sacred forests ‘Khloo Kyntang or Khloo Blai’ produce numerous altars of the community or kingdom, where the community perform rituals and ceremonies in this sacred forest. But, fifty years before educated people believed that believing in the sacredness of forests and rivers was superstitious (H.Sungoh, 2013). Therefore, most of the sacred forests were destroyed by the village fund, from the government fund, industries in the name of development. Jaintia people have some of their own folktales and stories which was maintained through oral tradition and were being able to preserve much of their cultural heritage. Jaintia festivals are mostly about agricultural seasons, prosperity and entertainment. ‘Shad sukra’ was mainly performed during pre-sowing season for happiness before sowing rice seeds. After sowing seeds, ‘Behdeinkhlam’ was celebrated focusing on praying for the prosperity and divine blessings for bountiful harvest. The strong bond that exists between the Jaintia and environment leads one to believe that the forests is the centre of Jaintia socio-economic and cultural life (Shangpliang, 2013). Agriculture is the primary agricultural practices in the region is predominantly the shifting cultivation which is locally known as ‘thang bun’, the social life of this region is regulated by jhum calendar. They depend on nature for their daily used like agriculture, hunting, fishing, carpentry, cane and bamboo work, bee-keeping, broomstick making, cutting and selling firewood, selling wild fruits and vegetables. Jaintias named their town
and villages after things of nature since time immemorial endured as a revered entity.

Water is the most essential item in the traditional rites of the Jaintias right from the cradle to the cairn. In each and every ritual ceremony water plays a very important role. Water is used during birth ceremony where the helpers boil water and pour it into a clay pot called ‘khiew pangrai’ and this water will be use for bathing the newly born baby. In the naming ceremony called ‘chatlanei’ water is the main tool for this ceremony. The Maternal uncle would carry the consecrated water and sprinkle before the almighty ruler and distributed the consecrated water equally to the children of seven huts so that they will not cut the leaf called ‘sla lane’. Before performing this ritual the Maternal uncle have to wash his feet, hands and face. Suring the marriage ceremony before the groom will enter the bride’s house his feet and hands must be washed by any of his parental brother-in-law or any of his male-in-laws. The ‘nohmynsoo’ (driving awar bad omen) ceremony would clean the rituals items three times with consecrated water the priest would hold the bottle gourd in his right hand and offer thank to the almighty. Water is also used during the death ceremony to clean the dead body with a believe that the dead body would appear in front of the almighty cleaned and purified. Before the funeral day early in the morning, the feet and face of the dead body is again washed with the consecrated water and formally offer the dead with tea and then followed by grind betel nut. Before bones collection the collectors would first sprinkle with some amount of consecrated water on the betel leaf and then they will start to collect the bones and again in the cairn the sarcophagus or ‘Mawbah’ will be sprinkled with water (H. Sungoh, 2013). Water is was one of the most important constituents of life support system and it was also found to be very essential in Jaintia culture and tradition in
which none of the ceremony is possible if there is no water, but unfortunately most of the rivers, streams in Jaintia Hills district have been contaminated due to mining, cement plants, quarrying.

1.11 Environmental Degradation in Jaintia Hills District, Meghalaya

The problem of environmental degradation is not limited to any particular country or region but it is global. In fact, the concern for environmental problems has never been as high as it is now. It is a high time to engage students in a dynamic process about the environmental realities of today’s world. Ethics towards the use of environmental resources must change, we must re-educate ourselves to treat the environment with greater caution and control. It is this realization that gives ‘environmental ethics’ a place of prime importance in Environmental Degradation. Looking at the status of Environmental Degradation of Jaintia Hills District in Meghalaya, one can observe that the people of Jaintia Hills District also follow the ‘shifting cultivation’ and ‘terrace cultivation’. This leads to degradation of land, causing soil erosion and finally converting forest into wastelands. The ‘Lukha River’, which originates from the ‘Nongkhlieh Elaka’ and flows along the ‘Narpuh’ reserve forest of Jaintia Hills District, Meghalaya, is one of the main rivers that run through the District and drains itself into the Surma Valley in Bangladesh. In 2007, ‘Lukha River’ was noticeably changed into blue colour and a big transformation swiftly followed. It was totally contaminated and its water was highly acidic due to cement plant in the area and this lead to killing of thousands of fishes and other aquatic life in the river. Blue water meant a danger for ‘consumption and survival’. Most of the villagers on the banks were highly dependent on the ‘Lukha river’ for drinking, cooking, washing and various other purposes, since almost all the villages have insufficient water supply. This all happened because of the discharge of the
wastage from the cement factories. People around opined that, “there has been a loss in human livelihood, in their way of life and in their culture drastically” because of this water pollution. Jaintia Hills District is also rich in minerals resources like coal and limestone. But wide ranges of environmental degradation is found due to over exploiting. Being a tribal dominated State the land belongs to local individuals/community/village, thus with Government not having control over the land. Unscientific coal mining has been the most profitable business in this area but in return, various environmental problems have cropped up such as scarcity of water, deforestation, water pollution, land subsidence, dust pollution and increase in wasteland. This is mainly because of the unscientific mining techniques. Like the ‘Lukha River’, several rivers and streams in the ‘coal mining belt have no traces of aquatic life’. In ‘Khliehriat’ Civil Sub-Division, ‘Waikhyrwi River’ has been diverted to facilitate coal mining on the riverbed. A serious practice of digging deep coal mine shafts and depositing coal on the dried riverbed had already been on the run, making the riverbeds lined with what is called ‘Acid Mine Drainage’ which results from the high sulphur content of the coal in Jaintia Hills District, giving many rivers in the coal belt in Jaintia Hills a ‘characteristic yellowish red colour’. Furthermore, the Meghalaya Government and the North Eastern Council has taken steps to develop hydro power generating stations in Meghalaya and this project has been taken up is the ‘Myntdu-Leshka’ project Stage-I in the Jaintia Hills of Meghalaya which was scheduled to start in 2003. Therefore, construction of this dam endangered the wildlife in this area includes tiger, rabbit, jungle cat and binturong, among other species. Constructions of this dam led to environmental clearance, extinction of flora and fauna, air pollution, noise pollution, soil erosion. Jaintia people especially in rural areas are still using ‘firewood (dieng thang)’ for cooking
and thousands of trees have been cut down in order to provide firewood which is much more rampant and leads to environmental clearance. These last few years, Jaintia Hills have seen an unprecedented growth in the number of coal mining, cement plants, automobiles, engineering projects, architectural pollution etc, these has been responsible for the growth of garbage and toxic waste which continue to pollute and endanger the eco-system. It is evident that every effort must be made to save this land from an irreversible disaster. Hence, Environmental Education for Sustainable Development should indoctrinate students, individuals, organizations for a life-long learning and sustainable life. Sustainable development pervades every aspect of life to maintain and improve environmental quality of life for future generations (Momin and Shadap, 2011). Seeing the environmental degradation in Jaintia Hills District now is a high time for the individuals and citizens to wake up and think about our Mother Earth because for us ‘to be alive is to be a part of our environment and to be separated from it means ‘death’. Integrating Environmental Education into the curriculum support students in developing attitudes of care and responsibility; developing a good citizenship. Presently, it is being observed that most of the students in Jaintia Hills District are unaware about their surroundings. Environmental education, environmental ethics and sustainable development make us realise that our cognitive, intellectual understanding of environmental issues is not enough, but we also need to develop a more affective understanding of environmental issues. Environmental education imbibes the essence of environmental ethics and values in order to maintain the quality of life and live harmony with nature. Environmental ethics concerns itself with humanity’s relationship to the environment, its understanding of and responsibility to nature. Awareness is becoming a global talk in the field of environmental education; people
worldwide are realizing its importance, as they are able to smell a polluted tomorrow. ‘Environmental ethics’ through ‘environmental education’ ‘develops’ a person, to ‘command’ him/her as a ‘force’ from within to ‘make decisions’ and take ‘action’ on the different aspects of the environment (Momin and Shadap, 2011)

1.12 Need of Environmental Education at the present Scenario

The purpose of Environmental Education is to develop citizens about the environment, give awareness of environmental problems and management alternatives useful in solving problems and motivated to act responsibly for a quality life (Roth, 1969). Act of 1970 stated, “Environmental Education is to promote citizen understanding and concern of the environment and responsible action to improve the quality of life”. It also aims to equip the individuals with knowledge, attitudes and skills in order to raise concern for the environment and to work towards solutions of environmental problems and the prevention of new ones (Stapp et al., 1969; Davis, 1998). The most important influences on behaviour is attitude (C.E. Ramsey and Rickson, 1976). Young people’s environmental attitudes are particularly important because they ultimately will be affected by and will need to provide solutions to environmental problems arising from present – day actions. Today’s youth will be responsible for fixing the environment, and they will be the best ones who will be persuaded to adopt and pay the costs of future environmental policies. Environmental problems have become globalized and have reached the stage where they present a threat to life on Earth. This situation had led to the review of people’s relationships with nature, their attitudes and behaviours towards the environment, the duties and responsibilities assumed by the individual towards nature, ecological culture and environmental awareness (Atasoy, 2005). Therefore, Environmental Education is a powerful means, not merely of communicating
knowledge, but of transferring environmental skills and environmental attitudes besides culture influencing youths’ environmental knowledge, beliefs, ethics and behaviour (Fien, Yencken and Skyes 2002) which gets passed in towards one’s relationship with environment. Environmental education makes a person conscious about the environmental crises and methods of averting it. It is of the view that environmental education can play an important role for the development of environment (Knimiller, 1983). International bodies and programs such as UNESCO, UNED and the Japan U.S Common Agenda and the Environmental Congress for Asia and the Pacific (ECO ASIA) have also been active in supporting environmental education. Education has been identified as an essential component for sustainable development worldwide.

The National Policy of Education (1986) containing new directions for the reorientation of content and process of education asserts that “there is a paramount need to create a consciousness of the environment, beginning with the child” and it emphasizes the need as an integral part of teaching in school and colleges. The policy further states that it would be “integrated” in the entire educational process. Imperatively providing the learner with opportunities to observe local environment features, problems, phenomena and changes in the community besides that at the global level in accordance to the objectives of Environmental Education. Thus, curriculum of Environmental Education are those set environmentally concerned educational activities which aims to inculcate environmental knowledge, indoctrinate environmental beliefs and values, trains environmental conducts and conditions environmentally focussed behaviour which is further illustrated in figure 1.1. In continuation with the Tibilisi Declaration (UNESCO, 1977), the curriculum is mandate to achieve the environmental education goals of fostering awareness and
concern about economic, social political and ecological inter-dependence; acquiring knowledge, values, attitudes, commitment and skills; creating new patterns of behaviour in individuals, groups and society as a whole towards the environment as per the contentual four levels specified in figure 1.1 (Momin and Shadap, 2013).

![Figure 1.1 Curriculum of Environmental Education](image)

The contents of Environmental Education deals with substantive social-cultural or environmental problems and indespensibely selects appropriate contents to improve the situation at different educational levels. The benefits of environmental education are practical and help us to lives in a meaningful and more satisfactory way, figure 1.2

![Figure 1.2 Benefits of Environmental Education](image)

Within general environmental education guidelines should define the alternatives which may be applicable to individual learning situations, such as are
given in communities or countries with different social and cultural backgrounds. Environmental education should not only take care of cultural values and traditions of groups and nations, but it help to rescue and re-value them in those cases where foreign influence has mediatised cultures, and sometimes destroyed them (Momin and Shadap, 2013).

Hence, in accordance to the direction of Honourable Supreme Court of India (1991), had issued a directive to the Union Government for incorporating Environmental Education at all levels of formal education, appreciating the fast deteriorating environment in the country and the hazards that poses to the citizens. But North Eastern Hill University had started way back in 1983. The general objective of the course was named “Man and Environment”, was not only to inculcate awareness and sensitisre the students but also to hold a comprehensive view of the subject, that itself is heterogeneous and multi-disciplinary in approach and content (Mohapatra, 1999). Likewise, Meghalaya Board of School Education (MBOSE) in the year 2006 has mandated Environmental Education as one subject at all levels of Meghalaya School Education. Government of Meghalaya considers Environmental Education to be one of the instruments for establishing a more durable relationship between man, his culture and his bio-physical surroundings. *Frank Environmental Education for Higher Secondary* has been written in strict conformity with the latest syllabus on Environmental Education prepared by NCERT, as per the directives of the Honourable Supreme Court of India, and adopted by the Boards of Education including the Central Board of Secondary Education, Council for the Indian School Certificate Examinations, Meghalaya Board of School Education and various State Boards.
Environmental Education should be positively developed in the students at this stage because students have different viewpoints on environmental ethics, knowledge, attitudes and practice toward the environment. Environmental Ethics for Students are particularly important because it will ultimately be affected ‘by and will’ need to provide ‘solutions’ to environmental problems arising from present-day actions. Curriculum or syllabus of Environmental Education of Meghalaya should be able to establish a sound relationship between students and the environment, for a quality life toward a sustainable development. Because ‘students or youth’ of ‘today’ will be the one who ‘will take the responsibilities for fixing the tomorrow’s environment’, and they are the ones who will be persuaded to adopt and pay the costs of future environmental policies (Momin and Shadap, 2011).

1.13 Justification of the Study

Environmental Education is a learning process which helps to increase the knowledge and awareness of the people about their environment. It is high time that people should realize and recognize the urgent need for environmental education but sadly only few have clear ideas about what needs to be done and very few have clear concept about either the actual experience or the knowledge about the courses that need to be taught in Environmental Education. The chief objectives of environmental education are to help the individual and social groups to acquire awareness, knowledge, attitude, skills, evaluation and participation. Environment has a holistic nature consisting of its physical, biological, social, cultural, economic, political which are interrelated with and interdependent on each other. The present relationship is the result of thousands of years if interaction between man and his biophysical surroundings. It is the right time to engage in a dynamic process to educate students of Jaintia Hills District Meghalaya about the socio-economic and
environmental realities of today's world. Most of the students are still unaware on the environmental issues, students are the future, pillars and the architects of our society. Therefore, it is essential to inculcate in them the environmental education for sustainable environment. Review had been made on different context and examined the different studies at different levels on environmental awareness, environmental knowledge, environmental attitudes, environmental ethics and environmental practices. And it was found that much research has been conducted on environmental education but yet minimum or perhaps no studies has been conducted on the three variables, i.e, environmental attitudes, environmental ethics and environmental practices from the cultural perspective point of view.

As culture carries a whole set of attitudes, ethics, practices and perspectives of one’s relationship with others including environment, the researcher proposed to know about today’s students, and the influence of their culture on their adherence to environmental variables like environmental attitudes, environment ethics and environmental practices. Further, no studies of this concern has also been done in Meghalaya. Meghalaya being a matrilineal State predominated by three major tribal communities, namely Khasi, Jaintia and Garos, have people with similar and dissimilar cultural attitudes, ethics and practices. So in order to know more about the culture and Environmental Education as antecedants and environmental attitudes, environmental ethics and environmental practices as the consequences, the following research questions are posed with special reference to Jaintia students of Jaintia Hills District:

(i). Are the students aware about the environmental attitudes, environmental ethics and environmental practices?
(ii). Are they responsible enough to adhere to positive environmental attitudes, ethics and practices in order to sustain our environment?

(iii). What are the existing environmental attitudes, ethics and practices of the particular group of students of Meghalaya?

(iv). To what extent does the existing cultural attitudes, ethics and practices affects the environmental attitudes, ethics and practices of these students of Meghalaya?

(v). Are there any differences in the environmental attitudes, ethics and practices of the students of the State across the institution with different types of management, level of education and/or gender?

Based on the review of available related literature and on the research questions, the investigator felt a need to study the environmental attitudes, environmental ethics and environmental practices of the students from a cultural perspective with an objective towards preventing environmental problems as well as conserving and preserving the environmental heritage of Jaintia Hills District of Meghalaya in particular and the globe in general so that Rene Dubos’ dictum “Think Globally and Act Locally” will be achieved to a certain extend with this humble attempt.

1.14 Statement of the Problem

Based on the need and justification of the study given, the statement of the problem was entitled as: “Environmental Attitudes, Ethics and Practices Among Jaintia Students in Jaintia Hills District, Meghalaya”.

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1.15 Operational Definition of the Terms Used

*Environmental Attitudes:*

Environmental Attitudes are the strong feelings, ideas, motives and perceptions of concern for the Environment and for actively participating and preventing the deterioration of the environment. In the present study, the term environmental attitudes refers to the degree of positive or negative environmental attitudes of the Jaintia students.

*Environmental Ethics:*

Environmental Ethics is the study of moral phenomenon concerning the human environment relationship that addresses the ethical responsibilities of human beings for the natural environment. It also deals with the rights of other living creatures that inhabit the earth. In the present study, the term environmental ethics refers to the degree of positive or negative environmental ethics of the Jaintia students.

*Environmental Practices:*

Environmental Practices refer to the methods or actions of an individual towards the environment which are related to the preservation and conservation of his or her environment. The environmental practices in relation with environment could be learned through realizing the importance of nature’s conservation and by changing the practices of daily life. In the present study, the term environmental practices refers to the degree of positive or negative environmental practices of the Jaintia students.
**Students:**

In the present study, students mean the Jaintia students between the age group of 16-24 years of Higher Secondary and Colleges of Jaintia Hills Districts, Meghalaya identifying them as Pnar (Jaintia).

**Culture:**

Culture is an all comprehensive term. It defines the mode of behaviour and thinking particular to a group under the influence of their history and tradition. It is the knowledge, beliefs, behaviour, outlook, attitudes, values, goals, traditions and practices shared by a group of people that cannot be attributed to genetics. In the present study, the researcher will administer the test on the Jaintia students of Jaintia Hills District in Meghalaya from a Jaintia cultural perspective.

**1.16 Delimitation of the Study**

The study was delimited to the Jaintia students of higher secondary and colleges of Jaintia Hills District, Meghalaya. The Jaintia Students was identified on the basis of their Caste Certificates wherein they are known as Pnar (Jaintia).

**1.17 Objectives**

The proposed study intended to achieve the following objectives:

1. To study the Environmental Attitudes (EA), Environmental Ethics (EEth) and Environmental Practices (EP) among the Jaintia students in Jaintia Hills District.

2. To compare the Environmental Attitudes (EA), Environmental Ethics (EEth) and Environmental Practices (EP) of the male and female Jaintia students of Jaintia Hills District.
3. To compare the Environmental Attitudes (EA), Environmental Ethics (EEth) and Environmental Practices (EP) between the Jaintia students of private institutions and government institutions of Jaintia Hills District.

4. To compare Environmental Attitudes (EA), Environmental Ethics (EEth) and Environmental Practices (EP) between the Jaintia students of higher secondary and colleges of Jaintia Hills District.

5. To compare the Environmental Attitudes (EA), Environmental Ethics (EEth) and Environmental Practices (EP) between the Jaintia Students of higher secondary and colleges of Jaintia Hills District across streams.

1.18 Hypotheses

The following hypotheses of the study were formulated as follows:

1. There is no significant difference in the Environmental Attitudes (EA), Environmental Ethics (EEth) and Environmental Practices (EP) of the male and female Jaintia students in Jaintia Hills District.

2. There is no significant difference in Environmental Attitudes (EA), Environmental Ethics (EEth) and Environmental Practices (EP) between the Jaintia students of the private institutions and government institutions of Jaintia Hills District.

3. There is no significant difference in Environmental Attitudes (EA), Environmental Ethics (EEth) and Environmental Practices (EP) between the Jaintia students of higher secondary and colleges of Jaintia Hills District.

4. The is no significant difference in Environmental Attitudes (EA), Environmental Ethics (EEth) and Environmental Practices (EP) between the Jaintia students of higher secondary and colleges of Jaintia Hills District across streams.