

Editorial

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Stop faking and face the facts

Man, being a social animal has to exist with and amongst other humans and in order to adjust and make co-existence possible certain laws and regulations are drawn up to safeguard the welfare of every member of the group or community, curtailing certain personal freedoms and liberties that might infringe on other person's welfare. This is the basic idea of a social set-up.

Leaders and arbitrators are then chosen to oversee the smooth working of the social system with adequate executive powers as deemed necessary to enforce the same- the Government as we know, create and accept in the contemporary world.

A society, being made up of individual members as well as diverse communities, is bound to come up with conflicting interests and emotions. This is where the quality and the efficiency of the people entrusted to sort out these social issues are being tested. The problems being faced by our society as a collective whole in recent times is uncountable and varied- indeed an intimidating and daunting task for those entrusted to solve them.

Public memory is short lived- or so it is believed. But sweeping away these problems under the carpet and shrouding them with silence, putting the theory about public memory to the test is not the right step towards easing or erasing the problems. Nor is the polished method of prolonging the issues and tiring out the protesting parties to buy time and making these matters fade out of the mind of the public the prudent way of resolving things.

The truth about the existence or otherwise of the much discussed issue about identity crisis, the long pending demand for protection and preservation of the identity, culture and traditions can in no way be subsided as long as the Manipur society exist.

The one time much debated issue for the introduction of 'Inner Line permit System' like legislation and the 'National Register of Citizens 1951' -

should be clarified by the state government without further ado as the after election scenario cannot be predicted.

There is doubt in saying that there is still simmering social tensions that is

increasingly taking on a communal tone which needs to be addressed immediately lest the state will be thrown into another bout of mayhem. This is not speculation, but reality as the fight in the recently concluded election (17th Lok Sabha Election) was taken in the bitterest way. The hatred among rival candidates has been planted so deeply that the aftermath of the declaration of the election tomorrow may be mayhem in Manipur's society. There are issues which the government could solved easily and these similar issues also have the tendency to flare up an uncertainty society.

It's better to wind up the matter before things become irreparably damaged. It needs to speed up the workings of its various departments and deliver the goods in time to avoid and prevent more problems. Genuine issues should be resolved before things gets out of hand and "mob Justice" takes precedence for those whose voices has been gagged for so long and their grievances fallen on deaf ears. Justice delayed is justice denied.

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Global Warming- Climate change & its effect.



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Climatology (from Greek klima) or Climate Science is the scientific study of climate, scientifically defined as weather conditions, averaged over a period of time. This modern field of study is regarded as a branch of the atmospheric Science and a sub- field of Physical Geography, which is one of the Earth Sciences. Climatology, now includes aspect of Oceanography and biogeochemistry. Basic knowledge of climate can be used within shorter term weather fore casting using analog techniques. Chinese Scientist SHEN KUO (1031-1095) inferred that climate naturally shifted over an enormous span of time, after observing petrified bamboos found underground near YANZHOU (modern day YAN'AN, SHAANXI Province), a dry climate area unsuitable for the growth of bamboos.

Climate change occurs when changes in Earth's climate system result in new weather patterns that last for at least a few decades and may be for millions of years. The climate system comprised of five interacting parts (i) the atmosphere (air) (ii) hydrosphere (water) (iii) Cryosphere (ice& permafrost) (iv) biosphere (Living things) (v) lithosphere (earth's crust & upper mantle). The climate system received nearly all of its energy from the Sun with a relatively tiny amount from Earth's interior. The climate system also gives off energy to outer space.

The balance of incoming and outgoing energy and passage of the energy through the climate system, determines Earth's Energy budget. When the incoming energy is greater than outgoing energy, Earth's energy budget is positive and climate system is warming. If more energy goes out, the energy budget is negative and earth experiences cooling. As this energy moves through Earth's climate system, it creates Earth's weather and long term averages of weather called "Climate Change". Such change can be the result of internal variability, when natural process inherent to the various parts of the climate system alter Earth's energy budget. Climate change can also result from external forcing, when events outside of the climate system's five parts nonetheless produce changes within the system. For example, changes in solar output and volcanism. Human activities can also change earth's climate and presently driving climate change through global warming.

Here is a simple definition of global warming (Andyes, it is really happening). Over the past 50 years, the average global temperature has increased at the fastest rate in recorded history. And experts, see the trend is accelerating. All but one of the 16 hottest years in NASA's 134-year record have occurred since 2000. Global warming occurs when carbon dioxide (CO₂) and other air pollutants and greenhouse gases collect in the atmosphere and absorb sunlight and solar radiation that have bounced off the earth's surface. Normally, this radiation would escape into space but these pollutants which can last for years to centuries in the atmosphere trap the heat and cause the planet to get hotter. That's what's known as the greenhouse effect. In the United States, the burning of fossil fuels generate electricity is the largest source of heat trapping pollution, producing about 2 billion tons of

CO₂ every year. Coal burning power plants are by far the biggest polluters. The country's second largest source of carbon pollution is the transportation sector which generates about 1.7 billion tons of CO₂ emission a year. India is the most vulnerable country to climate change followed by Pakistan, Philippines and Bangladesh as ranked by HSBC. The greenhouse gases released by human activities are solely responsible for the warming climate in India. Scientist agree that the earth's rising temperatures are fueling longer and hotter heat waves, more frequent droughts, heavier rainfall and more powerful hurricanes. **Such events started even in Manipur as we have seen recent deadly storms which was never happened before, flash flood in last year, water scarcity etc.** We all know that most of our hills in Manipur have been heavily deforested, even in the catchment areas of almost all our rivers, which causes flash floods during rainy seasons and rivers all dried up during lean season. Most of our one time, water bodies & wetlands have been perished, which stopped our water cycle, disturbing mild climatic system in Manipur, causing many unexpected natural calamities which were not existed at all in the past. In 2015, for example, Scientist said that an ongoing drought in California—the state's worst water shortage in 1,200 years—had been intensified by 15% to 20% by global warming. They also said, the odds of similar draught happening in the future had roughly doubled over the past century. And in 2016, the National Academic of Science, Engineering and Medicine announced that it's now possible to confidentially attribute certain weather events like some heat waves, directly to climate change.

The Earth's ocean temperatures are getting warmer too—which means that tropical storms can pick up more energy. So global warming could turn, say a category 3 storm into a more dangerous category 4 storm. In fact Scientist have found

that the frequency of North Atlantic hurricanes has increased since the early 1980s; as well as the number of storms that reach category 4 & 5. In 2005, Hurricanes "Katrina"—the costliest Hurricanes in U.S history struck New Orleans; the second costliest Hurricanes "SANDY", hit the East Coast in 2012. The impact of global warming are being felt across the globe. Extreme heat waves have caused tens of thousands of death around the World in recent years. And in an alarming sign of events to come, Antarctica has been losing about 134 billion metric tons of ice per year since 2002. This rate could speed up if we keep burning fossil fuels at our current pace, some experts says, causing sea level to rise several meters over the next 50 to 150 years. Each year, Scientist learn more about the consequence of global warming and many agree that environmental, economic and health consequences are likely to occur if current trends continue.

Here is a smattering of what we can look forward to due to global warming (i) Melting glacier, earlier snowmelt and severe droughts will cause more dramatic water shortages and increase the risk of wildfires (ii) rising sea level will lead to coastal floods and eastern seaboard, especially in Florida and other areas such as Gulf of Mexico (iii) Forest, farms and cities will face troublesome new pests, heat waves, and heavy downpours and increased flooding. All these factors will damage or destroy agriculture and fisheries (iv) Disruption of habitats, such as Coral Reefs and Alpine meadows could drive many plants and species to extinction (v) Allergies, asthma and infectious diseases outbreaks will become more common due to increased growth of pollen producing ragweed, higher level of air pollution and spread of conditions favorable to pathogens and mosquitos. So, what shall we do now? Now we all need to understand all these problems and stop or check the factors causing these. **It's we human being to choose whether we should go to hell or heaven.**

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BIODIVERSITY: WHY HUMANITY SHOULD CARE?

By: DR. KONTHOUJAM KHELCHANDRA

The International Day for Biological Diversity is celebrated every year on 22 May to increase the understanding level and awareness of biodiversity related issues. The United Nations adopted this day to commemorate the adoption of the text of the Convention on 22 May 1992. The main theme for this year International Day for Biological Diversity 2019 is "Our Biodiversity, Our Food, Our Health" which mainly emphasize on biological diversity as the foundation for our food and health and a vital catalyst to transforming food systems and bettering human health.

It is important to spread awareness about human dependence on biodiversity for its existence. We should not forget that we are just one species among the diversity of various life forms that are found in our earth. Complete linkage between biodiversity, ecosystems and the provisions of benefits to human health as genuinely engrained in the strategic plan for biodiversity 2011-20 is of utmost importance for achieving ecological and livelihood security.

According to Cristina Pasca Palmer, present executive secretary of the UN Convention on Biological Diversity "Biodiversity is the food we eat, the water we drink, and it is also the air we breathe. More than that, biodiversity is part of us, as we humans are part of nature". As per the United Nations Earth Summit (1992) Biodiversity is 'the variability among living organisms from all

sources, including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and ecosystems'. Biodiversity is part of our daily lives and livelihood, and constitutes resources upon which humanity rely on for its sustenance and survival. Therefore, conservation and sustainable use of biological resources is extremely important and necessary step. There are numerous benefits provided by biodiversity to humanity. Some of these are (a) Ecosystem services: protection of water resources, soil formation and protection, nutrient cycling and storage, pollution breakdown and adsorption, contribution to climate stability, maintenance of ecosystems, recovery from unpredictable events etc. (b) Biological services: food, medicinal resources and pharmaceutical drugs, wood products, ornamental plants, diversity in genes, species and ecosystems. (c) Social services: research, education and training, recreation and tourism and cultural values.

In spite of all the important natural services provided by biological diversity there has been constant threat which leads to the drastic decline in the biodiversity globally. Some of the eminent causes for

loss of biodiversity are man-made like: Habitat destruction, uncontrolled exploitation, hunting and poaching, conversion of biodiversity rich areas for human settlement and industrial development, extension for agriculture, environmental pollution, encroachments of wetlands, destruction of coastal areas etc. Nevertheless, some of the natural causes like floods, earthquakes, landslides, competition among species, lack of pollination and diseases also cause loss of biodiversity. Apart from these, global warming is also a major threat likely to cause massive impact on the biodiversity.

If the global warming continues unabated in the current trajectory, it is predicted that almost a third of the global flora and fauna could become extinct. As estimated by experts, the current rapid extinction rate is 1,000 times higher than the natural background extinction rate. These rates are much higher than previously estimated and likely still underestimated. So, in future there is probability of further rise in the extinction rates. To add to this disturbing scenario, scientist from Senckenberg biodiversity and climate research centre, Germany have projected that more than 80% of genetic diversity within species may disappear in certain groups of organism by 2080. In the existing perspective, the role of the Intergovernmental science policy platform on biodiversity and ecosystem services (IPBES) is

significantly relevant by performing timely assessment of knowledge on biodiversity on regular basis. The Convention on Biological Diversity (CBD) and five other biodiversity related conventions adoption of IPBES as the science policy interface is a strategic development. These assessments will surely further aid in monitoring the progress towards CBD's Aichi Targets of the Strategic plan for Biodiversity 2011-2020. However, there are many constraints to the struggles for biodiversity conservation. For instance, low priority for conservation of living natural resources, exploitation of natural resources for monetary benefits, inadequate evidence on the values and knowledge about the species and ecosystems, and unplanned urbanisation and uncontrolled industrialisation causes hindrance to the efforts directed towards biodiversity conservation.

In view of the different benefits of biodiversity to humans whether it is storm surge protection, carbon sequestration, water filtration, oxygen generation and recreational possibilities, maintenance of ecological and livelihood security, conservation of biodiversity is particularly obligatory at this moment. Hence, we should undertake immediate actions targeted towards biodiversity conservation on priority basis and at the same time encourage and increase our support topolicies that conserves our valuable natural resources.

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