

First Jab of Covishield Vaccine

Living amid the world gauged by the spectra of covid-19, the way one see and perceive things have completely taken a new troll. During such catastrophe, in order to deteriotate the fear of covid-19 among the citizen of Bhutan, ministry of health contrived to initiate the nationwide covid-19 vaccination program by the month of March.

With all the hardship and dedication, Bhutan could receive the consignment of covid-19 vaccines from India. Moreover, March 2021 was much awaited moment for the Bhutanese.

Finally, after more than a year of uncertainty, people were beginning to see some light at the end of the tunnel. With less than 1,000 infections, our perseverance has paid as well and have enjoyed relative safety. To defeat the pandemic, though, a coordinate global effect and equitable distribution of vaccines was imperative.

In line with Buddhist astrology, the first recipient of the vaccine on March 27 was a 30-year-old woman in the morning, Thimphu. A week long nationwide vaccination program was initiated and in the final two days of vaccination program Jigme Namgyel Engineering College received the first dose of covishield vaccine.



A total of 693 students and 129 staff members received corona virus jab during the two days of mass vaccination program at JNEC.

In the afternoon of 4th April, vaccinating of students and staff has started. During the first day, almost 80% of the students received the covishield jab, except the one with the recent record of having sickness and having medicines in the last two weeks.

Namgay Tshering, chief councilor of JNEC said, “today, in the day of vaccination, I, on my own behalf and all the family of JNEC want to immensely thank his majesty the king, royal government of Bhutan and the Bhutanese who served tirelessly to fight against the pandemic.”

Covid19 vaccination was initiated adhering to the strict Safety of protocol and to ensure every students and staff receives their individual jab. After injection of vaccines, everyone was kept under observation for the duration of 30 minutes.

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In the night, most of the recipient of vaccines experienced the mild fever headaches and body pain.

Nikesk Kumal, the student said, “I had to bear all night due to fever but towards morning I got relieve from the fever. Most importantly, I want to thank the people of India and PM Narendra Modi for sending us consignment of covid19 vaccination that could cover more than 500,000 population of Bhutan.

In order to rollout the vaccines, the country was reliant on volunteers, Desuups and heath officials and all the success gors to them who served tirelessly. It was a real success of vaccination program and JNEC would ensure to have more relaxation.

The first dose of vaccination came as a much needed morale boost but we cannot breathe a sigh of relief just yet. A large member of worldwide infection and build-up of immunity in the infected population is believed to be diving the emergence of new variants of covid-19.

With covid-19 cases escalating once again around the world, the local community has been urged to remain alert. And still ministry of health assures all Bhutanese to wear mask and follow the SOP.

~Moni Kumar Biswa

(Department of Civil Engineering and Surveying)

Biodiversity loss! Have you ever thought how intensive it is? Well, I believe that rarely a few of us are aware of the nature being destroyed each day. The loss of biodiversity is the result of natural habitat loss caused due to over exploitation, pollution and climate change. Amid the growing environmental crisis, the significant need for the reversal of biodiversity loss is an undeniable fact. Maintaining a healthy environment through the promotion of biodiversity is very crucial for us and our future generations. Imagine yourself living in an environment where the ecosystem is immensely balanced and sustained. Yes! We can always achieve such a reality if we dedicate ourselves to nature with continuous efforts, solutions and team works throughout all the times. And I believe that, there is no way that the humans can truly prosper by destroying and leaving the mother earth in tears.

The countries across the world measure their wealth in terms of economic growth. As a result of boosting it, the selfless nature is being betrayed and destroyed. To mention few, we dig out minerals and alter the environment, we clear forests for various purposes and we bring city to the woods. We the humans have always been destroying the nature for our greed and desires. Similarly, we have brought cancers to the nature, the pollution due to which all ecosystems of the globe are being hit hard at all times. Thus, the loss of biodiversity is already an ongoing major global crisis.

Among the many other factors, climate change has been one of the greatest threats to the global biodiversity. With the increasing use of fossil fuels for our various ventures, the concentration of greenhouse gases in the air has been gradually increasing, leading to the intensive greenhouse effect. As a result, the global warming has ignited climate change favoring the rise of sea level, the elimination of glacial ecosystem and the blankets of ice in the Arctic and Antarctica gradually disappearing. Such dynamic shift of climate not only affects the global biodiversity but also pose threats to the survival and existence of natu-

ral habitat and global species. Thus, it imposes the risk of species extinctions and ecological instabilities.

The need for the reversal of biodiversity loss is highly essential for the ecological stability and prosperity of natural habitat. A highly stable ecosystem not only ensures a continuous unbroken food chain but also enables the sustainable flow of natural resources in all seasons. Due to such powers of a healthy ecosystem, the natural biodiversity develops unattained empires ensuring the continuous supply of food for the existing species of the wildlife. It is indeed the boon for the mankind because; the availability of enough natural resources and foods in the forests prevents the wild animals from attacking our farm yards and crops. As a result, it is going to generate a healthy coexistence between human and wild creatures and promote the environmental and ecological stability. Thus, the stability of ecosystem is directly proportional to the health and the diversity of the species present in an environment.

A healthy biodiversity not only offers a stable ecosystem but also sustains the ecological stability for the future. For instance, there will always be a huge and evenly controlled species population in a stable ecosystem owing to the ability of the environment to support all of them with abundant resources. Such an ecosystem plays a great role in conservation of endangered species. Similarly, a healthy environment embedded with rich biodiversity can resist and regenerate easily from any extent of calamities compared to rest of the world. As a boon, birds, animals and rest of the wild creatures are immensely secured with food and shelter at all difficult times. Thus, the ecological stability and sustainability is ensured by the nature itself in an ecosystem rich with healthy biodiversity.

The loss of biodiversity must be reversed because; the diversity of species is the root of prosperous natural habitat and an agent of sustainable ecological future. Being a responsible global citizen and using the natural resources in a sustainable mode can save the large

natural habitat from being destroyed for our wants. With such practices, the impact we impose on nature will be very minimal. So, the nature can easily revive and regenerate after little affects on it. Similarly, the large part of the natural ecosystem is already being destroyed for the human greed but, we must always revisit the affected environment to invest our goals in reversing the loss of biodiversity with regards to its cause, effects and consequences. This can be done by planting trees in the affected environment, using eco-friendly mode of transport and managing waste effectively. Furthermore, being a responsible human being and avoiding an unnecessary dependence on natural resources can also generate a spark of effort in the conservation and promotion of global biodiversity. Thus, every seconds of a clock is the time for nature and we must work together to protect all the plants and animal species existing on the lap of mother earth.

Taking everything into considerations, the nature is the only entity that determines our environmental fate and certainties. The biodiversity, with which the natural habitat is guarded, has been destroyed gradually for the sake of raw materials, human settlements and economic growth. However, we are failing to count the impacts imposed on natural habitats due to human activities. The lost natural habitats must be restored in order to prevent the further loss of biodiversity. A healthy biodiversity is the blueprints of ecological stability, global peace and sustainable future. In a nutshell, the loss of biodiversity must be reversed with any extent of difficulties so as to conserve and preserve the pristine mother earth for the future generations to exist in harmony!

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Note: The Article was written to emphasize the importance of Environment and biodiversity more than any advancement of technologies and engineering.

Unread Epistle

Those feelings becoming wild inside her
Made her foolish enough to write another,
That poor girl couldn't keep inside safe
Instead wrote as if she was in her grave.

Those her screams filled the white pages
That suffered her for ages and ages,
She poured it out to protect her heart
Never knowing it would tear her more apart.

She ended penning her stupid name
Never knowing it would bring her shame,
She smiled upon folding the letter
And was sure he would unfold it later.

She would see him everyday passing by
But would find herself silly and shy,
She wished to tell him her single word
But would find herself telling it unheard.

Opening her at least written epistle for him
She hoped he would read it in dreams
She folded and put it back to its place
Knowing it would never reach him on haste.

Days passed by making up a month
Her morning sunrise refused to give her warmth,
She was there left like a wingless fairy;
Her that epistle left folded in her diary.

She found no right time to hand it over
And realised the time will come never,
"To have him," she said to herself in murmur
"Is like wishing for snowfall in summer."

Looking at her still folded epistle
She wished she was more better girl;
Who would win his heart at first sight
Who would dare to win every fight.

"Dear unread epistle," she took it near,
"He will need and read you someday somewhere."

With tears welling up in her eyes,
She left that epistle where it lies.

Arguing her love should not be in vain
She decided she would find him again
Fighting those monsters again in silence
Her that epistle-she never have another glance.

~Kencho Wangmo
(Diploma in Civil Engineering)

LEAST COUNT FOR A PATRIOTISM

I know not diamond,

I know not gold.

I just know the value so bold,

That of a bronze I was born.

I know not platinum,

I know not silver.

I wasn't born with silver spoon in mouth,

But from the precious heart I was cherished.

I know not bias,

I know not bullies.

My tutor wasn't that selfish,

To lead my voyage in such a way.

I know not heart breaks,

I know not brimming pain out.

Because she never taught,

The fake smile and fake love for me!

I never learnt to give up,

Neither I learned to lose hope.

As he never failed to make ends meet,

And he never gave up his role.

Maybe four days are enough,

For the country to be superior.

That are spring, summer, Autumn and winter,

Bounded together with hopes.

Or, maybe three days,

In the bucket list?

Yesterday, today and tomorrow

For the country's welfare.

Maybe two days could cover up,

All the loopholes and dirt in the air.

That are day and night,

To hold the brimming faith.

No, just one day is enough,

That is everyday.

To pave country towards next step,

One need to work just one day.

Working everyday with dreams to,

Make the country sparkle, twinkle and noticeable.

Project the country,

Merriment, charismatic and delightful.

~Ravi Lal Bhattarai

(Diploma in Civil Engineering)

Consequences of climate change

Climate change is the miserable threatening to all living forms on earth. It is the change in the global climate patterns which has recently been attributed by the increased levels of atmospheric carbon dioxide produced by the use of fossil fuel. Life on earth itself contributes to changes in the climate of the individual. The process of carbon emissions by humans is one of the reasons that affects the climate inversely. Continual emissions of carbon in combustion of fossil fuels, burning of industrial effluents and pollution by vehicles, gives serious impact on the emitted climate. The Swedish scientist, Svante Arrhenius was the first scientist to study the effect of carbon dioxide on climate (Climate changing: global warming, 2018) which states that climate change may be due to the natural internal processes or external forcing, or anthropogenic changes in the composition of the atmosphere or in the land use. It is mainly referred as an anthropogenic climate change as humans are the main cause of this climate changing. According to NASSA, changes in climate will also affect the extreme temperatures meaning a greater possibility of hot weather attributing to increased likelihood of weather related natural disasters. Climate change can lead to extinction of species, increased occurrence of natural disaster and can increase the risk on human health.

Climate change causes extinctions not only as a result of species intolerance to high temperature, but more commonly via a variety of related factors that alter a species interaction with other species, according to a new review published in Proceedings of the Royal society B (Waldron, 2013). With contrary to expectations given global warming, researchers from Stony Brook University found little evidence that many species have gone locally extinct or declined due to direct effects of higher temperature. Depending on a species responses to the warming, especially their ability to migrate to new sites, habitat change in many eco-regions has the potential to result in catastrophic species loss. Instead, climate change was found to typically lead to local extinction and declines by influencing interactions between species, such as reducing prey populations for predators. While many species were able to tolerate a moderate increase in temperature, 50% of the species had local extinctions if maximum temperatures increased by more than 0.5 degrees Celsius. Changes in timing differ from species to species, so ecological interactions are interrupted (Ecological impacts of climate change, 2009). The researchers found that the key to predicting whether a population will go extinct is the maximum annual temperature, as opposed to the average yearly temperature. Climate change affects the species in a number of ways including the expansion, contraction and migration of habitat. Change in temperature, precipitation and other environmental conditions increased the incidence of diseases and invasive species.

In addition to extinction of species, it is argued that climate change is the defining factor in the increased occurrence of natural disasters and most reputable organizations agree with this point. Extreme climate related disasters includes Hydrological events (storms, floods, wet mass land movements) and climatological events (extreme temperature, drought, wildfire). With increasing surface temperature the possibility of more drought and increased intensity of storms will likely to occur. More heat in the atmosphere

and warmer ocean surface temperature can lead to increased wind speeds in tropical storms (Terando, Reidmiller, Hostetler, & Littell, 2016). Increasing global temperature will have a detrimental effect on the earth as it will have many consequences that will be wide spread and hard hitting. This is due to the fact that climate change will cause increased risk of droughts; in 2014, climate change worsened the drought in East Africa and in the Levant region of southern Syria. Climate change was the main cause of the wildfires as the study found out that “climate change due to the human activity accounted for roughly 55 percent of the aridity in the Western US forests between 1979 and 2015” (Abatzoglou & Williams, 2016). This means that without climate change the disaster would have only spread half as much and would have not caused the devastation that happened.

Furthermore, climate change poses risk to human health and well-being through shifting weather patterns, increases in the frequency and intensity of heat waves and other extreme weather events. Climate change will affect the basic elements of life for people around the world that is access to water, food production, health and environment. Climatic change will likely increase the frequency and strength of extreme events that threaten human health and safety. It can have range of impacts on physical, mental, and community health. Heat stress can make working conditions unbearable and increase the risk of the cardiovascular, respiratory and renal disease. Additionally, it is estimated that 22.5 million people are displaced annually by climate or weather related disaster, and these figures are expected to increase in the future. Climate induced human mobility has a socioeconomic cost and can affect the mental and physical health. People exposed to ground level of ozone are at greater risk of dying prematurely or being admitted to the hospital for respiratory problems. In addition climate change can potentially influence the quality and quantity of disease carrying species thereby affecting the pathogens that carry those diseases (Bosello, Lazzarin, Roson, & Tol, 2004). According to WHO the fluctuations in global temperatures and rainfall have resulted in the deaths of around 150,000 people (Campbell-Lendrum, 2003). Furthermore, by 2030 the risk to human from climate change will almost double (WHO, 2020).

In conclusion, climate change can lead to extinction of species, increased occurrence of natural disaster and can increase the risk on human health. Climate change is the significant increase in worldwide temperatures which is slowly degrading life on earth. To jot down a few notable changes, the world is experiencing arbitrary droughts, and constant fluctuation in temperature leading to the natural disaster like forest fire, droughts and floods. If the earth's temperature continues to rise in future, living things on earth would become extinct due to higher temperature. If climate changes, the human society has to adapt to it by changing its designs, rules and infrastructure.

~Chador Pemo

(Diploma in Civil Engineering)